

Florida Department of Education  
Curriculum Framework

**Course Title:** Diversified Education Directed Study  
**Career Cluster:** Diversified Education

**Secondary – Career Preparatory**

Course Number	8300100
CIP Number	1098999901
Grade Level	11-12, 30, 31
Standard Length	Multiple credits
Teacher Certification	Refer to the <b>Course Structure</b> section.
CTSO	BPA, DECA, FBLA-PBL, FCCLA, FFA, FL-TSA, FPSA, HOSA, SkillsUSA

**Purpose**

The purpose of this course is to provide students with learning opportunities in a prescribed program of study within Diversified Education that will enhance opportunities for employment in the career field chosen by the student.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Course Structure**

The content is prescribed by the instructor based upon the individual student's assessed needs for directed study.

This course may be taken only by a student who has completed or is currently completing a specific secondary job preparatory program for additional study in this career cluster. A student may earn multiple credits in this course.

The selected standards and benchmarks, which the student must master to earn credit, must be outlined in an instructional plan developed by the instructor.

To teach the course listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the secondary course structure:

Course Number	Course Title	Teacher Certification	Length	Level	Graduation Requirement
8300100	Diversified Education Directed Study	ANY FIELD WHEN CERT REFLECTS BACHELOR OR HIGHER ANY VOCATIONAL FIELD OR COVERAGE	1 credit – Multiple credits	2	

*(Graduation Requirement Abbreviations- EQ= Equally Rigorous Science, PA= Practical Arts, EC= Economics)*

## **Common Career Technical Core – Career Ready Practices**

Career Ready Practices describe the career-ready skills that educators should seek to develop in their students. These practices are not exclusive to a Career Pathway, program of study, discipline or level of education. Career Ready Practices should be taught and reinforced in all career exploration and preparation programs with increasingly higher levels of complexity and expectation as a student advances through a program of study.

1. Act as a responsible and contributing citizen and employee.
2. Apply appropriate academic and technical skills.
3. Attend to personal health and financial well-being.
4. Communicate clearly, effectively and with reason.
5. Consider the environmental, social and economic impacts of decisions.
6. Demonstrate creativity and innovation.
7. Employ valid and reliable research strategies.
8. Utilize critical thinking to make sense of problems and persevere in solving them.
9. Model integrity, ethical leadership and effective management.
10. Plan education and career path aligned to personal goals.
11. Use technology to enhance productivity.
12. Work productively in teams while using cultural/global competence.

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate expertise in a specific occupation contained within the career cluster.
- 02.0 Conduct investigative research on a selected topic related to the career cluster using approved research methodology, interpret findings, and prepare a presentation to defend results.
- 03.0 Apply enhanced leadership and professional career skills.
- 04.0 Demonstrate higher order critical thinking and reasoning skills appropriate for the selected program of study.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Diversified Education Directed Study  
**Course Number:** 8300100  
**Course Credit:** Multiple

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate expertise in a specific occupation within the career cluster. The student will be able to:
01.01	The benchmarks will be selected from the appropriate curriculum frameworks and determined by the instructor based upon the individual student’s assessed needs.
02.0	Conduct investigative research on a selected topic related to the career cluster using approved research methodology, interpret findings, and prepare a presentation to defend results. The student will be able to:
02.01	Select investigative study referencing prior research and knowledge.
02.02	Collect, organize and analyze data accurately and precisely.
02.03	Develop procedures to test the research.
02.04	Report, display and defend the results of investigations to an audience that might include professionals and technical experts.
03.0	Apply enhanced leadership and professional career skills. The student will be able to:
03.01	Develop and present a professional presentation offering potential solutions to a current issue.
03.02	Enhance leadership and career skills through work-based learning including job placement, job shadowing, entrepreneurship, internship, or a virtual experience.
03.03	Participate in leadership development opportunities available through the appropriate student organization and/or other professional organizations.
03.04	Enhance written and oral communications through the development of presentations, public speaking, and live and/or virtual interviews.
04.0	Demonstrate higher order critical thinking and reasoning skills appropriate for the selected program of study. The student will be able to:
04.01	Use mathematical and/or scientific skills to solve problems encountered in the chosen occupation.
04.02	Read and interpret information relative to the chosen occupation.
04.03	Locate and evaluate key elements of oral and written information.

04.04 Analyze and apply data and/or measurements to solve problems and interpret documents.

04.05 Construct charts/tables/graphs using functions and data.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

The following list identifies the appropriate career and technical student organizations for providing leadership training and reinforcing specific career and technical skills: Business Professionals of America (BPA); DECA; Family, Career and Community Leaders of America (FCCLA); FFA; Florida Public Service Association (FPSA); Florida Technology Student Association (FL-TSA); Future Business Leaders of America – Phi Beta Lambda (FBLA-PBL); HOSA – Future Health Professionals (HOSA); SkillsUSA. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Some secondary students with disabilities (ESE) may need additional time (i.e., longer than the regular school year), to master the student performance standards associated with a regular course or a modified course. If needed, a student may enroll in the same career and technical course more than once. Documentation should be included in the IEP that clearly indicates that it is anticipated that the student may need an additional year to complete a Career and Technical Education (CTE) course. The student should work on different competencies and new applications of competencies each year toward completion of the CTE course. After achieving the competencies identified for the year, the student

earns credit for the course. It is important to ensure that credits earned by students are reported accurately. The district's information system must be designed to accept multiple credits for the same course number for eligible students with disabilities.



Florida Department of Education  
Curriculum Framework

**Program Title:** Workplace Essentials  
**Program Type:** Career Preparatory  
**Career Cluster:** Diversified Education

**Secondary – Career Preparatory**

Program Number	8300310
CIP Number	10988650CP
Grade Level	9-12, 30, 31
Standard Length	.5 credit
Teacher Certification	Refer to the <b>Program Structure</b> section.
CTSO	BPA, DECA, FBLA-PBL, FCCLA, FFA, FL-TSA, FPSA, HOSA, SkillsUSA
SOC Codes (all applicable)	N/A

**Purpose**

This course offers coherent and rigorous content aligned with challenging academic standards and the relevant technical knowledge and skills needed to prepare for further education and careers; provides technical skill proficiency, and includes competency-based applied learning that contributes to the academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, general employability skills, technical skills, and occupation-specific skills, and knowledge of all aspects of Diversified Education. This program offers a broad foundation of knowledge and skills to prepare students for employment in their chosen occupational field.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Program Structure**

This program is a planned sequence of instruction consisting of .5 credit.

To teach the course listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the secondary program structure:

Course Number	Course Title	Teacher Certification	Length	SOC Code	Level	Graduation Requirement
8300310	Workplace Essentials	ANY FIELD WHEN CERT REFLECTS BACHELOR OR HIGHER ANY VOCATIONAL FIELD OR COVERAGE COOR WK EX@7	.5 credit	N/A	2	

(Graduation Requirement Abbreviations- EQ= Equally Rigorous Science, PA= Practical Arts, EC= Economics)

**Florida Standards for Technical Subjects**

*Florida Standards (FS) for English Language Arts and Literacy in History/Social Studies, Science, and Technical Subjects are the critical reading and writing literacy standards designed for grade 6 and above. These standards are predicated on teachers of history/social studies, science, and technical subjects using their content area expertise to help students meet the particular challenges of reading, writing, speaking, listening, and language in their respective fields. The FS for Mathematical Practices are designed for grades K-12 and describe varieties of expertise that educators at all levels should seek to develop in their students. These practices rest on important “processes and proficiencies” with longstanding importance in mathematics education.*

**Instructors must incorporate the Florida Standards for Technical Subjects and Mathematical Practices throughout instruction of this CTE program.**

**Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL’s need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

## **Common Career Technical Core – Career Ready Practices**

Career Ready Practices describe the career-ready skills that educators should seek to develop in their students. These practices are not exclusive to a Career Pathway, program of study, discipline or level of education. Career Ready Practices should be taught and reinforced in all career exploration and preparation programs with increasingly higher levels of complexity and expectation as a student advances through a program of study.

1. Act as a responsible and contributing citizen and employee.
2. Apply appropriate academic and technical skills.
3. Attend to personal health and financial well-being.
4. Communicate clearly, effectively and with reason.
5. Consider the environmental, social and economic impacts of decisions.
6. Demonstrate creativity and innovation.
7. Employ valid and reliable research strategies.
8. Utilize critical thinking to make sense of problems and persevere in solving them.
9. Model integrity, ethical leadership and effective management.
10. Plan education and career path aligned to personal goals.
11. Use technology to enhance productivity.
12. Work productively in teams while using cultural/global competence.

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Describe the human relations skills necessary for success in the workforce.
- 02.0 Identify the communication skills necessary for successful employment.
- 03.0 Identify the mathematical skills necessary for successful employment.
- 04.0 Demonstrate knowledge and skills related to mathematics.
- 05.0 Demonstrate knowledge and skills related to science.
- 06.0 Demonstrate the leadership and teamwork skills needed to accomplish team goals and objectives.
- 07.0 Use oral and written communication skills to create, express, and interpret information and ideas.
- 08.0 Describe the duties and responsibilities of a successful employee.
- 09.0 Explain the importance of employability and entrepreneurship skills.
- 10.0 Use information technology tools.
- 11.0 Demonstrate the importance of health, safety, and environmental management systems in organizations and identify the relationship of these systems to organizational performance and regulatory compliance.
- 12.0 Describe the roles within teams, work units, departments, organizations, inter-organizational systems, and the larger environment.
- 13.0 Describe the importance of professional ethics and legal responsibilities.
- 14.0 Demonstrate knowledge and skills related to language arts.
- 15.0 Solve problem using critical thinking skills, creativity, and innovation.
- 16.0 Demonstrate money-management concepts, procedures, and strategies.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Workplace Essentials  
**Course Number:** 8300310  
**Course Credit:** .5

**Abbreviations:**

FS-M/LA = Florida Standards for Math/Language Arts  
 NGSSS-Sci = Next Generation Sunshine State Standards for Science

*Note: This course is pending alignment in the following categories: FS-M/LA and NGSSS-Sci.*

<b>CTE Standards and Benchmarks</b>		<b>FS-M/LA</b>	<b>NGSSS-Sci</b>
01.0	Describe the human relations skills necessary for success in the workforce. The student will be able to:		
01.01	Define punctuality, initiative, courtesy, loyalty, honesty, respect, responsibility, fairness, and trustworthiness.		
01.02	Identify and discuss the role of an employee as a team member in the workplace.		
01.03	Describe the use of teams in the workplace to increase productivity and product quality.		
01.04	Discuss the importance of human relations to success in the workplace.		
01.05	Define empathy, compassion, caring, enthusiasm, positive attitude, and self-motivation.		
01.06	Explain the importance of working effectively with diverse populations.		
01.07	Explain importance of self-management when minimum direction and supervision are given.		
01.08	Describe ethical situations in the world of work.		
01.09	Describe importance and benefits of time management.		
01.10	Identify and demonstrate steps necessary for solving problems and making decisions.		
01.11	Analyze future consequences of current decisions.		
01.12	Discuss the value of emotional self-control in the workplace.		
01.13	Explain “conflict resolution” and “dispute resolution” techniques and apply to a simulated work related problem.		

<b>CTE Standards and Benchmarks</b>		<b>FS-M/LA</b>	<b>NGSSS-Sci</b>
01.14	Identify and practice stress management and relaxation techniques.		
01.15	Discuss importance of practicing positive customer service skills.		
02.0	Identify the communication skills necessary for successful employment. The student will be able to:		
02.01	Describe the importance of the proper use of grammar, vocabulary, and diction.		
02.02	Identify the appropriate way to address people.		
02.03	Identify appropriate conversation for work related settings.		
02.04	Describe listening, speaking, and nonverbal skills necessary to determine customer needs.		
02.05	List professional vocabulary appropriate for the work environment.		
02.06	Demonstrate ability to communicate in a multicultural setting.		
02.07	Identify and define commonly used customer service terms such as complaints, internal and external customers.		
02.08	Demonstrate the ability to listen to, follow, and provide directions.		
02.09	Demonstrate the placing/receiving of telephone calls in a businesslike manner.		
02.10	Demonstrate ability to locate, understand, and interpret information found in trade manuals, schedules, charts, diagrams, tables of contents, indexes, labels, and Internet resources.		
03.0	Identify the mathematical skills necessary for successful employment. The student will be able to:		
03.01	Compute and compare gross pay, net pay, overtime pay, and specific payroll deductions.		
03.02	Compute different methods of monetary compensation (e.g., annual salary, hourly wage, commission, piecework).		
03.03	Calculate exemptions, deductions, and taxable income and use tax tables to prepare a federal income tax form.		
03.04	Prepare a balanced budget based on income and expenses.		
03.05	Describe importance of maintaining an accurate checkbook balance.		
03.06	Identify mathematical skills used by employees in a variety of career fields (e.g., electricians and apply electrical formulas to calculate watts, amps, ohms, or volts).		

<b>CTE Standards and Benchmarks</b>		<b>FS-M/LA</b>	<b>NGSSS-Sci</b>
04.0	Demonstrate knowledge and skills related to mathematics. The student will be able to:		
04.01	Demonstrate knowledge of arithmetic operations.		
04.02	Analyze and apply data and measurements to solve problems and interpret documents.		
04.03	Construct charts/tables/graphs using functions and data.		
05.0	Demonstrate knowledge and skills related to science. The student will be able to:		
05.01	Discuss the role of creativity in constructing scientific questions, methods and explanations.		
05.02	Formulate scientifically investigable questions, construct investigations, collect and evaluate data, and develop scientific recommendations based on findings.		
06.0	Demonstrate the leadership and teamwork skills needed to accomplish team goals and objectives. The student will be able to:		
06.01	Employ leadership skills to accomplish organizational goals and objectives.		
06.02	Establish and maintain effective working relationships with others in order to accomplish objectives and tasks.		
06.03	Conduct and participate in meetings to accomplish work tasks.		
06.04	Employ mentoring skills to inspire and teach others.		
07.0	Use oral and written communication skills to create, express, and interpret information and ideas. The student will be able to:		
07.01	Select and employ appropriate communication concepts and strategies to enhance oral and written communication in the workplace.		
07.02	Locate, organize and reference written information from various sources.		
07.03	Design, develop and deliver formal and informal presentations using appropriate media to engage and inform diverse audiences.		
07.04	Interpret verbal and nonverbal cues/behaviors that enhance communication.		
07.05	Apply active listening skills to obtain and clarify information.		
07.06	Develop and interpret tables and charts to support written and oral communications.		
07.07	Exhibit public relations skills that aid in achieving customer satisfaction.		
08.0	Describe the duties and responsibilities of a successful employee. The student will be able to:		

<b>CTE Standards and Benchmarks</b>		<b>FS-M/LA</b>	<b>NGSSS-Sci</b>
08.01	Explain how to handle customer inquiries/complaints.		
08.02	Explain how to handle difficult internal and external customers.		
08.03	Explain how to interpret policies to internal and external customers.		
08.04	Classify customer services according to nature and characteristics of the activity.		
08.05	Review methods to resolve customer problems through clarifying and explaining policies and procedures.		
08.06	Explain the importance of stress management and relaxation techniques as they relate to job performance.		
08.07	Demonstrate an understanding of gender, age, disability, and cultural courtesy.		
08.08	Describe workplace codes of professional/business conduct.		
08.09	Explain the concepts of integrity, credibility, reliability, and perseverance.		
08.10	List the responsibilities an employer has for his/her employees (ethical, social, legal).		
09.0	Explain the importance of employability and entrepreneurship skills. The student will be able to:		
09.01	Identify and demonstrate positive work behaviors needed to be employable.		
09.02	Develop personal career plan that includes goals, objectives, and strategies.		
09.03	Examine licensing, certification, and industry credentialing requirements.		
09.04	Maintain a career portfolio to document knowledge, skills, and experience.		
09.05	Evaluate and compare employment opportunities that match career goals.		
09.06	Identify and exhibit traits for retaining employment.		
09.07	Identify opportunities and research requirements for career advancement.		
09.08	Research the benefits of ongoing professional development.		
09.09	Examine and describe entrepreneurship opportunities as a career planning option.		
10.0	Use information technology tools. The student will be able to:		
10.01	Use personal information management (PIM) applications to increase workplace efficiency.		



<b>CTE Standards and Benchmarks</b>		<b>FS-M/LA</b>	<b>NGSSS-Sci</b>
10.02	Employ technological tools to expedite workflow including word processing, databases, reports, spreadsheets, multimedia presentations, electronic calendar, contacts, email, and internet applications.		
10.03	Employ computer operations applications to access, create, manage, integrate, and store information.		
10.04	Employ collaborative/groupware applications to facilitate group work.		
11.0	Demonstrate the importance of health, safety, and environmental management systems in organizations and identify the relationship of these systems to organizational performance and regulatory compliance. The student will be able to:		
11.01	Describe personal and jobsite safety rules and regulations that maintain safe and healthy work environments.		
11.02	Explain emergency procedures to follow in response to workplace accidents.		
11.03	Create a disaster and/or emergency response plan.		
12.0	Describe the roles within teams, work units, departments, organizations, inter-organizational systems, and the larger environment. The student will be able to:		
12.01	Describe the nature and types of business organizations.		
12.02	Explain the effect of key organizational systems on performance and quality.		
12.03	List and describe quality control systems and/or practices common to the workplace.		
12.04	Explain the impact of the global economy on business organizations.		
13.0	Describe the importance of professional ethics and legal responsibilities. The student will be able to:		
13.01	Evaluate and justify decisions based on ethical reasoning.		
13.02	Evaluate alternative responses to workplace situations based on personal, professional, ethical, legal responsibilities, and employer policies.		
13.03	Identify and explain personal and long-term consequences of unethical or illegal behaviors in the workplace.		
13.04	Interpret and explain written organizational policies and procedures.		
14.0	Demonstrate knowledge and skills related to language arts. The student will be able to:		
14.01	Locate, comprehend and evaluate key elements of oral and written information.		
14.02	Draft, revise, and edit written documents using correct grammar, punctuation and vocabulary.		

<b>CTE Standards and Benchmarks</b>		<b>FS-M/LA</b>	<b>NGSSS-Sci</b>
14.03	Present information formally and informally for specific purposes and audiences.		
15.0	Solve problems using critical thinking skills, creativity and innovation. The student will be able to:		
15.01	Employ critical thinking skills independently and in teams to solve problems and make decisions.		
15.02	Employ critical thinking and interpersonal skills to resolve conflicts.		
15.03	Identify and document workplace performance goals and monitor progress toward those goals.		
15.04	Conduct technical research to gather information necessary for decision-making.		
16.0	Demonstrate money-management concepts, procedures, and strategies. The student will be able to:		
16.01	Identify and describe the services and legal responsibilities of financial institutions.		
16.02	Describe the effect of money management on personal and career goals.		
16.03	Develop a personal budget and financial goals.		
16.04	Complete financial instruments for making deposits and withdrawals.		
16.05	Maintain financial records.		
16.06	Read and reconcile financial statements.		
16.07	Research, compare and contrast investment opportunities.		

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Special Notes**

The occupational standards and benchmarks outlined in this secondary program correlate to the standards and benchmarks of the postsecondary program with the same Classification of Instructional Programs (CIP) number.

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

**NOTE:** There is a **Cooperative Education Manual** available on-line with guidelines for workplace experiences. It can be accessed on the DOE Website.

### **Career and Technical Student Organization (CTSO)**

The following list identifies the appropriate career and technical student organizations for providing leadership training and reinforcing specific career and technical skills: Business Professionals of America (BPA); DECA; Family, Career and Community Leaders of America (FCCLA); FFA; Florida Public Service Association (FPSA); Florida Technology Student Association (FL-TSA); Future Business Leaders of America – Phi Beta Lambda (FBLA-PBL); HOSA – Future Health Professionals (HOSA); SkillsUSA. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Cooperative Training – OJT**

On-the-job training is appropriate but not required for this program. Whenever offered, the rules, guidelines, and requirements specified in the OJT framework apply.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Some secondary students with disabilities (ESE) may need additional time (i.e., longer than the regular school year), to master the student performance standards associated with a regular course or a modified course. If needed, a student may enroll in the same career and technical course more than once. Documentation should be included in the IEP that clearly indicates that it is anticipated that the student may need an additional year to complete a Career and Technical Education (CTE) course. The student should work on different competencies and new applications of competencies each year toward completion of the CTE course. After achieving the competencies identified for the year, the student earns credit for the course. It is important to ensure that credits earned by students are reported accurately. The district's information system must be designed to accept multiple credits for the same course number for eligible students with disabilities.

**Florida Department of Education  
Curriculum Framework**

**Program Title:** Workplace Technology Applications  
**Program Type:** Non Career Preparatory  
**Career Cluster:** Diversified Education

**Secondary – Non Career Preparatory**

Program Number	8300330
CIP Number	10110101PA
Grade Level	9-12, 30, 31
Standard Length	.5 credit
Teacher Certification	Refer to the <b><u>Program Structure</u></b> section.
CTSO	BPA, DECA, FBLA-PBL, FCCLA, FFA, FL-TSA, FPSA, HOSA, SkillsUSA

**Purpose**

The purpose of this program is to give students an opportunity to apply knowledge and skills related to the area of technology, how it works, and its uses in the workplace.

The content includes, but is not limited to, the knowledge and skills related to the technology, how it works, and its uses in the workplace.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Program Structure**

To teach the course listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the secondary program structure:

Course Number	Course Title	Teacher Certification	Length	Level	Graduation Requirement
8300330	Workplace Technology Applications	ANY FIELD WHEN CERT REFLECTS BACHELOR OR HIGHER ANY VOCATIONAL FIELD OR COVERAGE COOR WK EX @7	.5 credit	2	

(Graduation Requirement Abbreviations- EQ= Equally Rigorous Science, PA= Practical Arts, EC= Economics)

### **Florida Standards for Technical Subjects**

*Florida Standards (FS) for English Language Arts and Literacy in History/Social Studies, Science, and Technical Subjects are the critical reading and writing literacy standards designed for grade 6 and above. These standards are predicated on teachers of history/social studies, science, and technical subjects using their content area expertise to help students meet the particular challenges of reading, writing, speaking, listening, and language in their respective fields. The FS for Mathematical Practices are designed for grades K-12 and describe varieties of expertise that educators at all levels should seek to develop in their students. These practices rest on important “processes and proficiencies” with longstanding importance in mathematics education.*

**Instructors must incorporate the Florida Standards for Technical Subjects and Mathematical Practices throughout instruction of this CTE program.**

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL’s need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

## **Common Career Technical Core – Career Ready Practices**

Career Ready Practices describe the career-ready skills that educators should seek to develop in their students. These practices are not exclusive to a Career Pathway, program of study, discipline or level of education. Career Ready Practices should be taught and reinforced in all career exploration and preparation programs with increasingly higher levels of complexity and expectation as a student advances through a program of study.

1. Act as a responsible and contributing citizen and employee.
2. Apply appropriate academic and technical skills.
3. Attend to personal health and financial well-being.
4. Communicate clearly, effectively and with reason.
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6. Demonstrate creativity and innovation.
7. Employ valid and reliable research strategies.
8. Utilize critical thinking to make sense of problems and persevere in solving them.
9. Model integrity, ethical leadership and effective management.
10. Plan education and career path aligned to personal goals.
11. Use technology to enhance productivity.
12. Work productively in teams while using cultural/global competence.

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Explain the past, present, and future importance of technology in the workplace.
- 02.0 Define the basic terminology associated with technology in the workplace.
- 03.0 Describe components of emerging technology.
- 04.0 Describe ways technology is used by business to satisfy the needs and wants of customers.
- 05.0 Describe and demonstrate the uses of computers.
- 06.0 Demonstrate selected workplace software application programs.
- 07.0 Describe applications of technology in the workplace.
- 08.0 Discuss employment opportunities in the field of technology.
- 09.0 Demonstrate knowledge of telecommunications.
- 10.0 Identify legal and ethical issues related to technology in the workplace.
- 11.0 Demonstrate mathematics knowledge and skills.
- 12.0 Demonstrate science knowledge and skills.
- 13.0 Use oral and written communication skills in creating, expressing and interpreting information and ideas.
- 14.0 Demonstrate language arts knowledge and skills.
- 15.0 Solve problems using critical thinking skills, creativity and innovation.
- 16.0 Demonstrate the importance of health, safety, and environmental management systems in organizations and their importance to organizational performance and regulatory compliance.
- 17.0 Use information technology tools.
- 18.0 Demonstrate leadership and teamwork skills needed to accomplish team goals and objectives.
- 19.0 Demonstrate personal money-management concepts, procedures, and strategies.
- 20.0 Describe the roles within teams, work units, departments, organizations, inter-organizational systems, and the larger environment.
- 21.0 Describe the importance of professional ethics and legal responsibilities.
- 22.0 Explain the importance of employability and entrepreneurship skills.



**Florida Department of Education  
Student Performance Standards**

**Course Title:** Workplace Technology Applications  
**Course Number:** 8300330  
**Course Credit:** .5

**Abbreviations:**

FS-M/LA = Florida Standards for Math/Language Arts  
 NGSSS-Sci = Next Generation Sunshine State Standards for Science

*Note: This course is pending alignment in the following categories: FS-M/LA and NGSSS-Sci.*

<b>CTE Standards and Benchmarks</b>		<b>FS-M/LA</b>	<b>NGSSS-Sci</b>
01.0	Explain the past, present, and future importance of technology in the workplace. The student will be able to:		
01.01	Summarize development of technology and response of technology to changing needs.		
01.02	List uses of technology in the business community.		
01.03	Describe ways technology helps employees do their job.		
01.04	Contrast ways employees perform their jobs today using technology with the methods used 20 years ago.		
01.05	Describe how technology can be used to enhance the employee’s ability to meet the needs of business and industry.		
01.06	Explain the importance of keyboarding in the use of technology.		
01.07	Explain the concept of programming languages.		
01.08	Describe ergonomic principles important to the configuration of a workstation.		
01.09	Participate in a group presentation discussing if electronic storage transmission of information will lead to the “paperless office.”		
01.10	Provide several examples of how technology might be used in the future and its possible impact on the workplace (e.g., voice recognition dictation).		
02.0	Define the basic terminology associated with technology in the workplace. The student will be able to:		
02.01	Define and describe the term <i>hardware</i> .		

02.02	Define and describe the term <i>program</i> .		
02.03	Define and describe the term <i>programming language</i> .		
02.04	Define and describe the term <i>operating system</i> .		
02.05	Define and describe the terms <i>systems software</i> and <i>applications software</i> .		
02.06	Define and describe the concept of <i>computer literacy</i> .		
02.07	Define and describe the terms <i>mainframe computer</i> , <i>minicomputers</i> , and <i>microcomputers</i> .		
02.08	Define and describe the term <i>microprocessor</i> .		
02.09	Define and describe the term <i>Graphical User Interface (GUI)</i> .		
02.10	Explain the difference between data and information.		
02.11	Define and describe the term <i>modem</i> .		
02.12	Define and describe the terms <i>Internet</i> , <i>World Wide Web (www)</i> , <i>FTP</i> , <i>intranet</i> , and <i>extranet</i> .		
02.13	Define and describe <i>Universal Resource Locator (URL)</i> and the associated extensions.		
02.14	Identify a variety of Internet search engines.		
03.0	Describe components of emerging technology. The student will be able to:		
03.01	List ten (10) examples of emerging technologies.		
03.02	Identify and define multi-media technology.		
03.03	Identify techniques for designing effective multi-media presentations.		
03.04	Identify and describe the various information systems (e.g., OIS, MIS, DSS, IIS) available in today's business environment.		
03.05	Identify the basic functions of each of the above information systems.		
03.06	Discuss management of above listed information systems.		
04.0	Describe ways technology is used by business to satisfy the needs and wants of customers. The student will be able to:		
04.01	Identify information provided to a consumer on a sample computerized receipt and invoice.		
04.02	Describe advantages of computers in the workplace.		

04.03	Describe disadvantages of computers in the workplace.		
04.04	Describe how a word processor helps businesses benefit the customers.		
04.05	Describe how a database helps businesses benefit the customers.		
04.06	Describe how a spreadsheet helps businesses benefit the customers.		
04.07	Describe how sophisticated programs such as graphics and desktop publishing help businesses benefit their customers.		
04.08	Describe how businesses use the world wide web and web pages to reduce costs, improve communication, and market products or images.		
04.09	Discuss how teleconferencing can save time and money.		
04.10	Compare and contrast the use of pagers and cellular telephones.		
05.0	Describe and demonstrate the uses of computers. The student will be able to:		
05.01	Define and describe the three components of computer hardware: input device, central processing unit, and output device.		
05.02	Demonstrate "booting" and "power off" procedures for a computer.		
05.03	Explain use of machine specific commands and keyboard functions.		
05.04	Demonstrate use of a mouse.		
05.05	Demonstrate use of a printer.		
05.06	Demonstrate various methods for storing information.		
05.07	Describe use of electronic mail.		
05.08	Describe use of a scanner.		
05.09	Describe use of a digital camera.		
05.10	Describe use of a video camera and/or images		
05.11	Define and describe processing and multi-tasking		
05.12	Describe at least two methods of compressing files.		
05.13	Describe the use of hypertext links using "mail to" and "url."		
05.14	Describe a method of setting up a self-extracting file transfer.		

05.15	Describe the use of two different types of electronic video.		
05.16	Explain two methods of constructing a document in a hybrid platform.		
05.17	Describe a method of converting a web graphic for GIF to JPG.		
05.18	Demonstrate the relationship of programming language, input, memory (storage), arithmetic and logic, control, and output (distribution).		
05.19	Describe importance of care and handling of a computer and peripherals and systems maintenance.		
05.20	Describe typical computer component and peripheral problems.		
06.0	Demonstrate selected workplace software applications. The student will be able to:		
06.01	List the brand names of computers used by several businesses in the community.		
06.02	List the names of application software being used by several businesses in the community.		
06.03	Compare and contrast types of technology and software being used in the business community with what is available at your school.		
06.04	Describe how one software package is being used (applied) in a sample workplace.		
06.05	Prepare a business letter and envelope using an integrated software application package.		
06.06	Demonstrate a method to produce mailing labels using computer software.		
06.07	Develop a sample database to integrate with a business letter.		
06.08	Develop a sample spreadsheet to integrate with a business letter.		
06.09	Develop a sample computer-generated graph to represent collected data.		
06.10	Develop a sample presentation using PowerPoint or comparable software application.		
06.11	Demonstrate the use of a computer system in processing information and resources.		
06.12	Evaluate appropriateness of various peripherals for specific applications.		
07.0	Describe applications of technology in the workplace. The student will be able to:		
07.01	Describe the uses of Computer-Aided Design (CAD), Computer-Aided Manufacturing (CAM), and Computer Numeric Control (CNC).		
07.02	Describe the uses of computer cash registers.		

07.03	Explain the use of computers in manufacturing.		
07.04	Explain the use of computers in government.		
07.05	Explain the use of computers in communications.		
07.06	Explain the use of computers in transportation.		
07.07	Explain the use of computers in education.		
07.08	Explain the use of computers in science and engineering.		
07.09	Explain the use of computers in medicine.		
07.10	Explain the use of computers in banking and investing.		
07.11	Explain the use of computers in customer service.		
07.12	Explain the use of computers in the arts and music.		
07.13	Describe transdisciplinary computer literacy and computer-based technological applications.		
07.14	Identify kinds and levels of work and job opportunities related to transdisciplinary computer technology.		
07.15	Describe the uses of databases in the workplace.		
07.16	Explain a method to back-up and maintain files and a computer system.		
07.17	Describe current and emerging telecommunications systems.		
07.18	Summarize present and potential diverse applications of technology including robotics.		
08.0	Discuss employment opportunities in the field of technology. The student will be able to:		
08.01	List 10 different types of employment opportunities available in the technology field (e.g., systems analyst, operator, repair specialist, salesperson, web page designer).		
08.02	Prepare and deliver an oral report on one of the jobs available including necessary education and training, pay, positions available, advancement opportunities.		
08.03	Interview individuals currently employed in the technology field.		
08.04	Create an electronic résumé that could be used to apply for a technology-related position.		
09.0	Demonstrate knowledge of telecommunications. The student will be able to:		
09.01	Identify the basic functions of telecommunications.		

09.02	Define and describe Local Area Networks (LANS).		
09.03	Define and describe Wide Area Networks (WANS).		
09.04	Define and describe electronic mail (e-mail) capabilities and functions.		
09.05	Define and describe facsimile (fax).		
09.06	Define and describe voice messaging.		
09.07	Define and describe networking cabling requirements.		
09.08	Discuss the emergence of the Internet and electronic bulletin boards as means of transmitting information.		
09.09	Describe the process for arranging a teleconference.		
10.0	Identify legal and ethical issues related to technology in the workplace. The student will be able to:		
10.01	Discuss the impact of technology and related trends on society and the environment.		
10.02	Identify ethical issues resulting from technological advances (e.g., hacking, computer viruses, copyright infringement).		
10.03	Discuss copyright laws and their impact on technology.		
10.04	Research ways to promote confidentiality for messages transmitted via technology.		
10.05	Participate in a group presentation discussing legal and ethical issues pertaining to the use of technology in the workplace (e.g., personal privacy, security).		
11.0	Demonstrate mathematics knowledge and skills. The student will be able to:		
11.01	Demonstrate knowledge of arithmetic operations.		
11.02	Analyze and apply data and measurements to solve problems and interpret documents.		
11.03	Construct charts/tables/graphs using functions and data.		
12.0	Demonstrate science knowledge and skills. The student will be able to:		
12.01	Discuss the role of creativity in constructing scientific questions, methods and explanations.		
12.02	Formulate scientifically investigable questions, construct investigations, collect and evaluate data, and develop scientific recommendations based on findings.		
13.0	Use oral and written communication skills in creating, expressing and interpreting information and ideas. The student will be able to:		

13.01	Select and employ appropriate communication concepts and strategies to enhance oral and written communication in the workplace.		
13.02	Locate, organize and reference written information from various sources.		
13.03	Design, develop and deliver formal and informal presentations using appropriate media to engage and inform diverse audiences.		
13.04	Interpret verbal and nonverbal cues/behaviors that enhance communication.		
13.05	Apply active listening skills to obtain and clarify information.		
13.06	Develop and interpret tables and charts to support written and oral communications.		
13.07	Exhibit public relations skills that aid in achieving customer satisfaction.		
14.0	Demonstrate language arts knowledge and skills. The student will be able to:		
14.01	Locate, comprehend and evaluate key elements of oral and written information.		
14.02	Draft, revise, and edit written documents using correct grammar, punctuation and vocabulary.		
14.03	Present information formally and informally for specific purposes and audiences.		
15.0	Solve problems using critical thinking skills, creativity and innovation. The student will be able to:		
15.01	Employ critical thinking skills independently and in teams to solve problems and make decisions.		
15.02	Employ critical thinking and interpersonal skills to resolve conflicts.		
15.03	Identify and document workplace performance goals and monitor progress toward those goals.		
15.04	Conduct technical research to gather information necessary for decision-making.		
16.0	Demonstrate the importance of health, safety, and environmental management systems in organizations and their importance to organizational performance and regulatory compliance. The student will be able to:		
16.01	Describe personal and jobsite safety rules and regulations that maintain safe and healthy work environments.		
16.02	Explain emergency procedures to follow in response to workplace accidents.		
16.03	Create a disaster and/or emergency response plan.		
17.0	Use information technology tools. The student will be able to:		

17.01	Use personal information management (PIM) applications to increase workplace efficiency.		
17.02	Employ technological tools to expedite workflow including word processing, databases, reports, spreadsheets, multimedia presentations, electronic calendar, contacts, email, and Internet applications.		
17.03	Employ computer operations applications to access, create, manage, integrate, and store information.		
17.04	Employ collaborative/groupware applications to facilitate group work.		
18.0	Demonstrate leadership and teamwork skills needed to accomplish team goals and objectives. The student will be able to:		
18.01	Employ leadership skills to accomplish organizational goals and objectives.		
18.02	Establish and maintain effective working relationships with others in order to accomplish objectives and tasks.		
18.03	Conduct and participate in meetings to accomplish work tasks.		
18.04	Employ mentoring skills to inspire and teach others.		
19.0	Demonstrate personal money-management concepts, procedures, and strategies. The student will be able to:		
19.01	Identify and describe the services and legal responsibilities of financial institutions.		
19.02	Describe the effect of money management on personal and career goals.		
19.03	Develop a personal budget and financial goals.		
19.04	Complete financial instruments for making deposits and withdrawals.		
19.05	Maintain financial records.		
19.06	Read and reconcile financial statements.		
19.07	Research, compare and contrast investment opportunities.		
20.0	Describe the roles within teams, work units, departments, organizations, inter-organizational systems, and the larger environment. The student will be able to:		
20.01	Describe the nature and types of business organizations.		
20.02	Explain the effect of key organizational systems on performance and quality.		
20.03	List and describe quality control systems and/or practices common to the workplace.		
20.04	Explain the impact of the global economy on business organizations.		



21.0	Describe the importance of professional ethics and legal responsibilities. The student will be able to:		
21.01	Evaluate and justify decisions based on ethical reasoning.		
21.02	Evaluate alternative responses to workplace situations based on personal, professional, ethical, legal responsibilities, and employer policies.		
21.03	Identify and explain personal and long-term consequences of unethical or illegal behaviors in the workplace.		
21.04	Interpret and explain written organizational policies and procedures.		
22.0	Explain the importance of employability and entrepreneurship skills. The student will be able to:		
22.01	Identify and demonstrate positive work behaviors needed to be employable.		
22.02	Develop personal career plan that includes goals, objectives, and strategies.		
22.03	Examine licensing, certification, and industry credentialing requirements.		
22.04	Maintain a career portfolio to document knowledge, skills, and experience.		
22.05	Evaluate and compare employment opportunities that match career goals.		
22.06	Identify and exhibit traits for retaining employment.		
22.07	Identify opportunities and research requirements for career advancement.		
22.08	Research the benefits of ongoing professional development.		
22.09	Examine and describe entrepreneurship opportunities as a career planning option.		

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

The following list identifies the appropriate career and technical student organizations for providing leadership training and reinforcing specific career and technical skills: Business Professionals of America (BPA); DECA; Family, Career and Community Leaders of America (FCCLA); FFA; Florida Public Service Association (FPSA); Florida Technology Student Association (FL-TSA); Future Business Leaders of America – Phi Beta Lambda (FBLA-PBL); HOSA – Future Health Professionals (HOSA); SkillsUSA. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Cooperative Training – OJT**

On-the-job training is appropriate but not required for this program. Whenever offered, the rules, guidelines, and requirements specified in the OJT framework apply.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Some secondary students with disabilities (ESE) may need additional time (i.e., longer than the regular school year), to master the student performance standards associated with a regular course or a modified course. If needed, a student may enroll in the same career and technical course more than once. Documentation should be included in the IEP that clearly indicates that it is anticipated that the student may need an

additional year to complete a Career and Technical Education (CTE) course. The student should work on different competencies and new applications of competencies each year toward completion of the CTE course. After achieving the competencies identified for the year, the student earns credit for the course. It is important to ensure that credits earned by students are reported accurately. The district's information system must be designed to accept multiple credits for the same course number for eligible students with disabilities.

Florida Department of Education  
Curriculum Framework

**Course Title:** Cooperative Diversified Education - OJT  
**Course Type:** Career Preparatory  
**Career Cluster:** Diversified Education

**Secondary – Cooperative Education - OJT**

Course Number	8300420
CIP Number	10988620CP
Grade Level	9-12, 30, 31
Standard Length	Multiple credits
Teacher Certification	Refer to the <b>Course Structure</b> section.
CTSO	BPA, DECA, FBLA-PBL, FCCLA, FFA, FL-TSA, FPSA, HOSA, SkillsUSA

**Purpose**

This program offers a sequence of courses that provides coherent and rigorous content aligned with challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and careers in Diversified Education; provides technical skill proficiency, and includes competency-based applied learning that contributes to the academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, general employability skills, technical skills, and occupation-specific skills, and knowledge of all aspects of the Diversified Education cluster.

**Each student job placement must be related to the job preparatory program in which the student is enrolled or has completed.**

The purpose of this course is to provide the on-the-job training component when the **cooperative method of instruction** is appropriate. Whenever the cooperative method is offered, the following is required for each student: a training agreement; a training plan signed by the student, teacher and employer, including instructional objectives; a list of on-the-job and in-school learning experiences; a workstation which reflects equipment, skills and tasks which are relevant to the occupation which the student has chosen as a career goal; and a site supervisor with a working knowledge of the selected occupation. The workstation may be in an industry setting or in a virtual learning environment. The student **must be compensated** for work performed.

The teacher/coordinator must meet with the site supervisor a minimum of once during each grading period for the purpose of evaluating the student's progress in attaining the competencies listed in the training plan.

Cooperative Diversified Education OJT may be taken by a student for one or more semesters. A student may earn multiple credits in this course. The specific student performance standards which the student must achieve to earn credit are specified in the Cooperative Education - OJT Training Plan.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Course Structure**

To teach the course listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the secondary course structure:

Course Number	Course Title	Teacher Certification	Length	Level	Graduation Requirement
8300420	Cooperative Diversified Education - OJT	ANY FIELD BA OR HIGHER ANY VOC FIELD OR COV COOP TEACH @7 COOR DCT @4 @7 COOR WK EXP @7 7G MKTG 1@2	Multiple Credits	2	

*(Graduation Requirement Abbreviations- EQ= Equally Rigorous Science, PA= Practical Arts, EC= Economics)*

## **Common Career Technical Core – Career Ready Practices**

Career Ready Practices describe the career-ready skills that educators should seek to develop in their students. These practices are not exclusive to a Career Pathway, program of study, discipline or level of education. Career Ready Practices should be taught and reinforced in all career exploration and preparation programs with increasingly higher levels of complexity and expectation as a student advances through a program of study.

1. Act as a responsible and contributing citizen and employee.
2. Apply appropriate academic and technical skills.
3. Attend to personal health and financial well-being.
4. Communicate clearly, effectively and with reason.
5. Consider the environmental, social and economic impacts of decisions.
6. Demonstrate creativity and innovation.
7. Employ valid and reliable research strategies.
8. Utilize critical thinking to make sense of problems and persevere in solving them.
9. Model integrity, ethical leadership and effective management.
10. Plan education and career path aligned to personal goals.
11. Use technology to enhance productivity.
12. Work productively in teams while using cultural/global competence.

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Perform designated job skills.
- 02.0 Demonstrate work ethics.

Florida Department of Education  
Student Performance Standards

Program Title: Cooperative Diversified Education OJT  
Secondary Number: 8300420

<b>Standards and Benchmarks</b>	
01.0	Perform designated job skills. The student will be able to:
01.01	Perform tasks as outlined in the training plan.
01.02	Demonstrate job performance skills.
01.03	Demonstrate safety procedures on the job.
01.04	Maintain appropriate records.
01.05	Attain an acceptable level of productivity.
01.06	Demonstrate appropriate dress and grooming habits.
02.0	Demonstrate work ethics. The student will be able to:
02.01	Follow directions.
02.02	Demonstrate good human relations skills on the job.
02.03	Demonstrate good work habits.
02.04	Demonstrate acceptable business ethics.



## **Additional Information**

### **Special Notes**

The **Cooperative Education Manual** is available on-line and has guidelines for students, teachers, employers, parents and other administrators and sample training agreements. It can be accessed on the DOE Website.

The occupational standards and benchmarks outlined in this secondary program correlate to the standards and benchmarks of the postsecondary program with the same Classification of Instructional Programs (CIP) number.

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

The following list identifies the appropriate career and technical student organizations for providing leadership training and reinforcing specific career and technical skills: Business Professionals of America (BPA); DECA; Family, Career and Community Leaders of America (FCCLA); FFA; Florida Public Service Association (FPSA); Florida Technology Student Association (FL-TSA); Future Business Leaders of America – Phi Beta Lambda (FBLA-PBL); HOSA – Future Health Professionals (HOSA); SkillsUSA. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Some secondary students with disabilities (ESE) may need additional time (i.e., longer than the regular school year), to master the student performance standards associated with a regular course or a modified course. If needed, a student may enroll in the same career and technical course more than once. Documentation should be included in the IEP that clearly indicates that it is anticipated that the student may need an additional year to complete a Career and Technical Education (CTE) course. The student should work on different competencies and new applications of competencies each year toward completion of the CTE course. After achieving the competencies identified for the year, the student earns credit for the course. It is important to ensure that credits earned by students are reported accurately. The district's information system must be designed to accept multiple credits for the same course number for eligible students with disabilities.

Florida Department of Education  
Curriculum Framework

**Program Title:** Career and Technical Education Internship  
**Program Type:** Career Preparatory  
**Career Cluster:** Diversified Education

**Secondary – Career Preparatory**

Program Number	8300430
CIP Number	10988630CP
Grade Level	9-12, 30, 31
Standard Length	Multiple Credits
Teacher Certification	Refer to the <b><u>Program Structure</u></b> section.
CTSO	BPA, DECA, FBLA-PBL, FCCLA, FFA, FL-TSA, FPSA, HOSA, SkillsUSA
SOC Codes (all applicable)	N/A

**Purpose**

This program offers a sequence of courses that provides coherent and rigorous content aligned with challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and careers; provides technical skill proficiency, and includes competency-based applied learning that contributes to the academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, general employability skills, technical skills, and occupation-specific skills, and knowledge of all aspects of career education. This program offers a broad foundation of knowledge and skills to prepare students for employment in the selected occupational area.

The purpose of this course is to provide students with the opportunity to gain practical, first-hand knowledge in broad occupational clusters or industry sectors through a structured internship experience. This internship is designed to give students an opportunity to integrate occupational and applied academic learning and to apply knowledge and skills learned in a classroom to actual work situations not generally available through paid employment.

To enroll in the internship, a student must be currently enrolled in or has completed a career course/program (including Technology Education). Students will be allowed a maximum of 450 total hours at the workplace-learning site, regardless of the number of credits earned.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

## **Program Structure**

To teach the course listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the secondary program structure:

Course Number	Course Title	Teacher Certification	Length	SOC Code	Level	Graduation Requirement
8300430	Guided Workplace Learning (Internship)/Career and Technical Education Internship	ANY FIELD WHEN CERT REFLECTS BACHELOR OR HIGHER ANY VOCATIONAL FIELD OR COVERAGE	Multiple Credits	N/A	2	

*(Graduation Requirement Abbreviations- EQ= Equally Rigorous Science, PA= Practical Arts, EC= Economics)*

## **Florida Standards for Technical Subjects**

*Florida Standards (FS) for English Language Arts and Literacy in History/Social Studies, Science, and Technical Subjects are the critical reading and writing literacy standards designed for grade 6 and above. These standards are predicated on teachers of history/social studies, science, and technical subjects using their content area expertise to help students meet the particular challenges of reading, writing, speaking, listening, and language in their respective fields. The FS for Mathematical Practices are designed for grades K-12 and describe varieties of expertise that educators at all levels should seek to develop in their students. These practices rest on important “processes and proficiencies” with longstanding importance in mathematics education.*

**Instructors must incorporate the Florida Standards for Technical Subjects and Mathematical Practices throughout instruction of this CTE program.**

## **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL’s need for communication and social skills.

For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

## **Common Career Technical Core – Career Ready Practices**

Career Ready Practices describe the career-ready skills that educators should seek to develop in their students. These practices are not exclusive to a Career Pathway, program of study, discipline or level of education. Career Ready Practices should be taught and reinforced in all career exploration and preparation programs with increasingly higher levels of complexity and expectation as a student advances through a program of study.

1. Act as a responsible and contributing citizen and employee.
2. Apply appropriate academic and technical skills.
3. Attend to personal health and financial well-being.
4. Communicate clearly, effectively and with reason.
5. Consider the environmental, social and economic impacts of decisions.
6. Demonstrate creativity and innovation.
7. Employ valid and reliable research strategies.
8. Utilize critical thinking to make sense of problems and persevere in solving them.
9. Model integrity, ethical leadership and effective management.
10. Plan education and career path aligned to personal goals.
11. Use technology to enhance productivity.
12. Work productively in teams while using cultural/global competence.

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate knowledge and skills related to mathematics.
- 02.0 Demonstrate knowledge and skills related to science.
- 03.0 Use oral and written communication skills to create, express, and interpret information and ideas.
- 04.0 Demonstrate knowledge and skills related to language arts.
- 05.0 Solve problems using critical thinking skills, creativity and innovation.
- 06.0 Demonstrate the importance of health, safety, and environmental management systems in organizations and the relationship of these systems to organizational performance and regulatory compliance.
- 07.0 Use information technology tools.
- 08.0 Demonstrate the leadership and teamwork skills needed to accomplish team goals and objectives.
- 09.0 Demonstrate money-management concepts, procedures, and strategies.
- 10.0 Describe the roles within teams, work units, departments, organizations, inter-organizational systems, and the larger environment.
- 11.0 Describe the importance of professional ethics and legal responsibilities.
- 12.0 Explain the importance of employability and entrepreneurship skills.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Guided Workplace-Learning  
**Course Number:** 8300430  
**Course Credit:** Multiple

**Course Description:**

The purpose of this course is to provide students with the opportunity to gain practical, first-hand knowledge in broad occupational clusters or industry sectors through a structured internship experience. This internship is designed to give students an opportunity to integrate occupational and applied academic learning and to apply knowledge and skills learned in a classroom to actual work situations not generally available through paid employment.

**Abbreviations:**

FS-M/LA = Florida Standards for Math/Language Arts  
 NGSSS-Sci = Next Generation Sunshine State Standards for Science

*Note: This course is pending alignment in the following categories: FS-M/LA and NGSSS-Sci.*

CTE Standards and Benchmarks		FS-M/LA	NGSSS-Sci
01.0	Demonstrate knowledge and skills related to mathematics. The student will be able to:		
01.01	Demonstrate knowledge of arithmetic operations.		
01.02	Analyze and apply data and measurements to solve problems and interpret documents.		
01.03	Construct charts/tables/graphs using functions and data.		
02.0	Demonstrate knowledge and skills related to science. The student will be able to:		
02.01	Discuss the role of creativity in constructing scientific questions, methods and explanations.		
02.02	Formulate scientifically investigable questions, construct investigations, collect and evaluate data, and develop scientific recommendations based on findings.		
03.0	Use oral and written communication skills to create, express, and interpret information and ideas. The student will be able to:		
03.01	Select and employ appropriate communication concepts and strategies to enhance oral and written communication in the workplace.		

<b>CTE Standards and Benchmarks</b>		<b>FS-M/LA</b>	<b>NGSSS-Sci</b>
03.02	Locate, organize and reference written information from various sources.		
03.03	Design, develop and deliver formal and informal presentations using appropriate media to engage and inform diverse audiences.		
03.04	Interpret verbal and nonverbal cues/behaviors that enhance communication.		
03.05	Apply active listening skills to obtain and clarify information.		
03.06	Develop and interpret tables and charts to support written and oral communications.		
03.07	Exhibit public relations skills that aid in achieving customer satisfaction.		
04.0	Demonstrate knowledge and skills related to language arts. The student will be able to:		
04.01	Locate, comprehend and evaluate key elements of oral and written information.		
04.02	Draft, revise, and edit written documents using correct grammar, punctuation and vocabulary.		
04.03	Present information formally and informally for specific purposes and audiences.		
05.0	Solve problems using critical thinking skills, creativity and innovation. The student will be able to:		
05.01	Employ critical thinking skills independently and in teams to solve problems and make decisions.		
05.02	Employ critical thinking and interpersonal skills to resolve conflicts.		
05.03	Identify and document workplace performance goals and monitor progress toward those goals.		
05.04	Conduct technical research to gather information necessary for decision-making.		
06.0	Demonstrate the importance of health, safety, and environmental management systems in organizations and the relationship of these systems to organizational performance and regulatory compliance. The student will be able to:		
06.01	Describe personal and jobsite safety rules and regulations that maintain safe and healthy work environments.		
06.02	Explain emergency procedures to follow in response to workplace accidents.		
06.03	Create a disaster and/or emergency response plan.		
07.0	Use information technology tools. The student will be able to:		
07.01	Use personal information management (PIM) applications to increase workplace efficiency.		

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
07.02 Employ technological tools to expedite workflow including word processing, databases, reports, spreadsheets, multimedia presentations, electronic calendar, contacts, email, and Internet applications.		
07.03 Employ computer operations applications to access, create, manage, integrate, and store information.		
07.04 Employ collaborative/groupware applications to facilitate group work.		
08.0 Demonstrate the leadership and teamwork skills needed to accomplish team goals and objectives. The student will be able to:		
08.01 Employ leadership skills to accomplish organizational goals and objectives.		
08.02 Establish and maintain effective working relationships with others in order to accomplish objectives and tasks.		
08.03 Conduct and participate in meetings to accomplish work tasks.		
08.04 Employ mentoring skills to inspire and teach others.		
09.0 Demonstrate money-management concepts, procedures, and strategies. The student will be able to:		
09.01 Identify and describe the services and legal responsibilities of financial institutions.		
09.02 Describe the effect of money management on personal and career goals.		
09.03 Develop a personal budget and financial goals.		
09.04 Complete financial instruments for making deposits and withdrawals.		
09.05 Maintain financial records.		
09.06 Read and reconcile financial statements.		
09.07 Research, compare and contrast investment opportunities.		
10.0 Describe the roles within teams, work units, departments, organizations, inter-organizational systems, and the larger environment. The student will be able to:		
10.01 Describe the nature and types of business organizations.		
10.02 Explain the effect of key organizational systems on performance and quality.		
10.03 List and describe quality control systems and/or practices common to the workplace.		
10.04 Explain the impact of the global economy on business organizations.		



<b>CTE Standards and Benchmarks</b>		<b>FS-M/LA</b>	<b>NGSSS-Sci</b>
11.0	Describe the importance of professional ethics and legal responsibilities. The students will be able to:		
11.01	Evaluate and justify decisions based on ethical reasoning.		
11.02	Evaluate alternative responses to workplace situations based on personal, professional, ethical, legal responsibilities, and employer policies.		
11.03	Identify and explain personal and long-term consequences of unethical or illegal behaviors in the workplace.		
11.04	Interpret and explain written organizational policies and procedures.		
12.0	Explain the importance of employability and entrepreneurship skills. The student will be able to:		
12.01	Identify and demonstrate positive work behaviors needed to be employable.		
12.02	Develop personal career plan that includes goals, objectives, and strategies.		
12.03	Examine licensing, certification, and industry credentialing requirements.		
12.04	Maintain a career portfolio to document knowledge, skills, and experience.		
12.05	Evaluate and compare employment opportunities that match career goals.		
12.06	Identify and exhibit traits for retaining employment.		
12.07	Identify opportunities and research requirements for career advancement.		
12.08	Research the benefits of ongoing professional development.		
12.09	Examine and describe entrepreneurship opportunities as a career planning option.		

## Additional Information

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Special Notes**

The occupational standards and benchmarks outlined in this secondary program correlate to the standards and benchmarks of the postsecondary program with the same Classification of Instructional Programs (CIP) number.

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **The internship must include the following components:**

**Pre-Placement Planning Conference:** The student, teacher, and the Career and Technical Education Internship site supervisor must participate in a pre-placement conference. It is also recommended that the parent/guardian of the student be included in the pre-placement planning conference. Pre-placement planning is essential in designing learning experiences that are appropriate for each individual's learning needs and career interests. Also, it is critical that all parties involved understand and agree on time schedules, expectations, training/learning activities, and evaluation methods. The internship agreement should be signed by the student, teacher/coordinator, parent/guardian, and the Career and Technical Education Internship site supervisor.

**Career and Technical Education Internship Site:** The following criteria should be met when choosing the Career and Technical Education Internship site:

The internship must allow experiences that utilize both skills and knowledge directly related to the student's career goal and the career and technical course/program in which the student is enrolled or has completed.

The internship must provide opportunities for rotation through a wide variety of increasingly responsible experiences beyond routine activities.

The internship must provide skilled workplace-learning site supervisors and/or mentors who are interested and willing to assist the student.

The internship must provide a safe and ethically sound environment with up-to-date facilities and equipment. The internship must adhere to all state and federal laws and rules regarding the employment of minors. The internship must not displace a paid employee.

The student does not have to be paid.

Timecards documenting the time spent at the internship site must be maintained.

Job Experience: This component shall provide a match between the student's career goal and a work-based situation that will provide exposure to the broad aspects of the selected industry. The assigned tasks should allow for a progression of and rotation through experiences requiring a variety of skills and knowledge at increasingly higher levels as relates to the student's career major.

Career and Technical Education Internship Plan: A Career and Technical Education Internship plan must be developed and implemented for each student. The student performance standards of the Career and Technical Education Internship plan should include an outline of learning objectives, methods of learning, activities/responsibilities, time required, provisions for supervision, and method(s) of student evaluation. The Career and Technical Education Internship plan must be signed by the student, teacher/coordinator, parent/guardian, and the Career and Technical Education Internship site supervisor.

Weekly Class or Seminar: Students in the Career and Technical Education Internship must meet a minimum of once per week for the purpose of related instruction and developmental activity. These seminars should provide a forum for students to share and learn from each other's experiences through discussion and group activities/projects. Faculty should also use this time to reinforce the application of subject matter in the internship setting. Students should be encouraged to reflect upon and personalize their experiences through individual journals and also through interaction with the teacher/coordinator and the Career and Technical Education Internship site supervisor.

Supervision/Site Visits: Teacher/Coordinators of the Career and Technical Education Internship must monitor and support learning while students are in the field. Teacher/coordinators should visit the internship site as frequently as once every two weeks, but not less than once per month so that students may be observed performing all facets of their internship experiences. Students must also be evaluated a minimum of once per grading period by the Career and Technical Education Internship site supervisor. The evaluation should assess how well the student is progressing towards goals established by the student, teacher/coordinator, and Career and Technical Education Internship site supervisor. Portfolio assessment is a recommended method of student assessment.

For every 20 students (or portion thereof) enrolled in Career and Technical Education Internship, the teacher/coordinator should be given one hour of coordination release time per day for the purposes of visiting students on the job and managing the cooperative method of instruction.

### **Career and Technical Student Organization (CTSO)**

The following list identifies the appropriate career and technical student organizations for providing leadership training and reinforcing specific career and technical skills: Business Professionals of America (BPA); DECA; Family, Career and Community Leaders of America (FCCLA); FFA; Florida Public Service Association (FPSA); Florida Technology Student Association (FL-TSA); Future Business Leaders of America – Phi Beta Lambda (FBLA-PBL); HOSA – Future Health Professionals (HOSA); SkillsUSA. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Cooperative Training – OJT**

On-the-job training is appropriate but not required for this program. Whenever offered, the rules, guidelines, and requirements specified in the OJT framework apply.

## **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Some secondary students with disabilities (ESE) may need additional time (i.e., longer than the regular school year), to master the student performance standards associated with a regular course or a modified course. If needed, a student may enroll in the same career and technical course more than once. Documentation should be included in the IEP that clearly indicates that it is anticipated that the student may need an additional year to complete a Career and Technical Education (CTE) course. The student should work on different competencies and new applications of competencies each year toward completion of the CTE course. After achieving the competencies identified for the year, the student earns credit for the course. It is important to ensure that credits earned by students are reported accurately. The district's information system must be designed to accept multiple credits for the same course number for eligible students with disabilities.

**Florida Department of Education  
Curriculum Framework**

**Program Title:** Work Experience  
**Program Type:** Non Career Preparatory  
**Career Cluster:** Diversified Education

**Secondary – Non Career Preparatory**

Program Number	8301600
CIP Number	10988640CP
Grade Level	9-12, 30, 31
Standard Length	Multiple Credits
Teacher Certification	Refer to the <b><u>Program Structure</u></b> section.
CTSO	BPA, DECA, FBLA-PBL, FCCLA, FFA, FL-TSA, FPSA, HOSA, SkillsUSA

**Purpose**

The purpose of this program is to give students an opportunity to apply knowledge and skills related to the area of Diversified Education.

The content includes but is not limited to Diversified Education.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Program Structure**

The purpose of this program is to provide support for at-risk students. This support shall be provided through instruction in the methods of acquiring the necessary human relations skills, work ethic, and common knowledge required for successful employment and for selection of a career plan that will guide the transition from school-to-work. Concurrently, the student is to be engaged in paid, supervised part-time employment as a means of gaining experience in a bona-fide work environment in compliance with the Child Labor Law established by the U.S. Department of Labor.

The Federal Child Labor Regulation 3 allows 14 and 15 year old students to work during the school day, between 7 AM and 7 PM, for a maximum of 18 hours per week, and a maximum of 3 hours per day, in any occupation permitted by Florida Child Labor Law, the Fair Labor Standards Act (FLSA), and/or in any occupation for which a variance (Student Learner Exemption Agreement) has been obtained from the Department of Labor and Employment Security.

Opportunities are to be provided for the student to obtain competencies and recognition through successful work experience and to satisfactorily complete a high school education.

A student may not enroll in a Work Experience class without concurrent enrollment in Work Experience-OJT (8301650). Also, a student may not enroll in Work Experience-OJT (8301650) without previous or concurrent enrollment in a Work Experience class. Each student enrolled in the Work Experience 1, 2, 3, or 4 courses may earn one credit. A minimum of 1 credit for on-the-job employment experiences may be earned for each year the student is enrolled in Work Experience-OJT.

The student must be paid for work performed and must be directly supervised. Supervised on-the-job activities may be continued as a summer learning experience without classroom instruction for students who previously participated successfully in the in-school and on-the-job instructional activities.

A beginning Work Experience student will be placed in the 8301610-Work Experience 1 course.

To teach the courses listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the secondary program structure:

Course Number	Course Title	Teacher Certification	Length	Level	Graduation Requirement
8301610	Work Experience 1	ANY FIELD WHEN CERT REFLECTS BACHELORS OR HIGHER COOR WK EXP @7	1 credit	2	
8301620	Work Experience 2		1 credit	2	
8301630	Work Experience 3		1 credit	2	
8301640	Work Experience 4		1 credit	2	
8301650	Work Experience OJT		multiple credits	2	

*(Graduation Requirement Abbreviations- EQ= Equally Rigorous Science, PA= Practical Arts, EC= Economics)*

**Florida Standards for Technical Subjects**

*Florida Standards (FS) for English Language Arts and Literacy in History/Social Studies, Science, and Technical Subjects are the critical reading and writing literacy standards designed for grade 6 and above. These standards are predicated on teachers of history/social studies, science, and technical subjects using their content area expertise to help students meet the particular challenges of reading, writing, speaking, listening, and language in their respective fields. The FS for Mathematical Practices are designed for grades K-12 and describe varieties of expertise that educators at all levels should seek to develop in their students. These practices rest on important “processes and proficiencies” with longstanding importance in mathematics education.*

**Instructors must incorporate the Florida Standards for Technical Subjects and Mathematical Practices throughout instruction of this CTE program.**

**Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

## **Common Career Technical Core – Career Ready Practices**

Career Ready Practices describe the career-ready skills that educators should seek to develop in their students. These practices are not exclusive to a Career Pathway, program of study, discipline or level of education. Career Ready Practices should be taught and reinforced in all career exploration and preparation programs with increasingly higher levels of complexity and expectation as a student advances through a program of study.

1. Act as a responsible and contributing citizen and employee.
2. Apply appropriate academic and technical skills.
3. Attend to personal health and financial well-being.
4. Communicate clearly, effectively and with reason.
5. Consider the environmental, social and economic impacts of decisions.
6. Demonstrate creativity and innovation.
7. Employ valid and reliable research strategies.
8. Utilize critical thinking to make sense of problems and persevere in solving them.
9. Model integrity, ethical leadership and effective management.
10. Plan education and career path aligned to personal goals.
11. Use technology to enhance productivity.
12. Work productively in teams while using cultural/global competence.



## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Explain the importance of employability and entrepreneurship skills.
- 02.0 Demonstrate the importance of health, safety, and environmental management systems in organizations and the relationship of these systems to organizational performance and regulatory compliance.
- 03.0 Use oral and written communication skills to create, express, and interpret information and ideas.
- 04.0 Define, demonstrate proficiency, and analyze the ability to apply mathematical skills.
- 05.0 Define, demonstrate, and maintain personal hygiene and health.
- 06.0 Demonstrate money-management concepts, procedures, and strategies.
- 07.0 Demonstrate the leadership and teamwork skills needed to accomplish team goals and objectives.
- 08.0 Define, demonstrate, and assess techniques to maintain professionalism.
- 09.0 Define, demonstrate, and assess cognitive skills.
- 10.0 Define, demonstrate, and assess interpersonal and intrapersonal skills.
- 11.0 Use information technology tools.
- 12.0 Define, demonstrate, and evaluate understanding of economic and entrepreneurial principles.
- 13.0 Define, demonstrate, and assess the importance of determining career options.
- 14.0 Explain the importance of employability and entrepreneurship skills.
- 15.0 Demonstrate the importance of health, safety, and environmental management systems in organizations and the relationship of these systems to organizational performance and regulatory compliance.
- 16.0 Use oral and written communication skills to create, express, and interpret information and ideas.
- 17.0 Define, demonstrate proficiency, and analyze the ability to apply mathematical skills.
- 18.0 Demonstrate money-management concepts, procedures, and strategies.
- 19.0 Demonstrate the leadership and teamwork skills needed to accomplish team goals and objectives.
- 20.0 Define, demonstrate, and assess techniques to maintain professionalism.
- 21.0 Define, demonstrate, and assess cognitive skills.
- 22.0 Define, demonstrate, and assess interpersonal and intrapersonal skills.
- 23.0 Use information technology tools.
- 24.0 Define, demonstrate, and assess the importance of determining career options.
- 25.0 Perform designated job skills.
- 26.0 Describe the importance of professional ethics and legal responsibilities.
- 27.0 Perform designated recordkeeping skills.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Work Experience 1  
**Course Number:** 8301610  
**Course Credit:** 1

**Course Description:**

This course is designed to meet the minimum student performance standards as outlined in the program framework and to provide remedial instruction when needed. Students first entering the program begin with this course.

**Abbreviations:**

FS-M/LA = Florida Standards for Math/Language Arts  
 NGSSS-Sci = Next Generation Sunshine State Standards for Science

*Note: This course is pending alignment in the following categories: FS-M/LA and NGSSS-Sci.*

<b>CTE Standards and Benchmarks</b>		<b>FS-M/LA</b>	<b>NGSSS-Sci</b>
01.0	Explain the importance of employability and entrepreneurship skills. The student will be able to:		
01.01	Identify and demonstrate positive work behaviors needed to be employable.		
01.02	Develop personal career plan that includes goals, objectives, and strategies.		
01.03	Examine licensing, certification, and industry credentialing requirements.		
01.04	Maintain a career portfolio to document knowledge, skills, and experience.		
01.05	Evaluate and compare employment opportunities that match career goals.		
01.06	Identify and exhibit traits for retaining employment.		
01.07	Identify opportunities and research requirements for career advancement.		
01.08	Research the benefits of ongoing professional development.		
01.09	Examine and describe entrepreneurship opportunities as a career planning option.		
02.0	Demonstrate the importance of health, safety, and environmental management systems in organizations and the relationship of these systems to organizational performance and		

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
regulatory compliance. The student will be able to:		
02.01 Describe personal and jobsite safety rules and regulations that maintain safe and healthy work environments.		
02.02 Explain emergency procedures to follow in response to workplace accidents.		
02.03 Create a disaster and/or emergency response plan.		
03.0 Use oral and written communication skills to create, express, and interpret information and ideas. The student will be able to:		
03.01 Select and employ appropriate communication concepts and strategies to enhance oral and written communication in the workplace.		
03.02 Locate, organize and reference written information from various sources.		
03.03 Design, develop and deliver formal and informal presentations using appropriate media to engage and inform diverse audiences.		
03.04 Interpret verbal and nonverbal cues/behaviors that enhance communication.		
03.05 Apply active listening skills to obtain and clarify information.		
03.06 Develop and interpret tables and charts to support written and oral communications.		
03.07 Exhibit public relations skills that aid in achieving customer satisfaction.		
04.0 Define, demonstrate proficiency, and analyze the ability to apply mathematical skills. The student will be able to:		
04.01 Compute weekly and annual wages.		
04.02 Compute wages when overtime is worked.		
04.03 Determine wages for jobs when piecework or tips are involved.		
04.04 Compute annual salary.		
04.05 Use rounding to determine salary in a pay period.		
04.06 Use percentages and decimals to compute commissions.		
04.07 Identify differences between gross and net pay.		
04.08 Change prices from cents to dollars and from dollars to cents.		
04.09 Compute the cost of single and multiple items.		

CTE Standards and Benchmarks		FS-M/LA	NGSSS-Sci
04.10	Compute change and count back correctly.		
04.11	Use information on coupons to determine the cost of an item when a coupon is used.		
04.12	Create a coupon.		
04.13	Compute and compare unit prices.		
04.14	Complete a 1040EZ federal income tax form.		
05.0	Define, demonstrate, and maintain personal hygiene and health. The student will be able to:		
05.01	Identify advantages of a healthy life style.		
05.02	Identify factors that influence wellness.		
05.03	Assess importance of emotional mental health.		
05.04	Demonstrate types of exercises designed to enhance health/wellness.		
05.05	Identify benefits of good nutrition, proper rest, and exercise.		
06.0	Demonstrate money-management concepts, procedures, and strategies. The student will be able to:		
06.01	Identify and describe the services and legal responsibilities of financial institutions.		
06.02	Describe the effect of money management on personal and career goals.		
06.03	Develop a personal budget and financial goals.		
06.04	Complete financial instruments for making deposits and withdrawals.		
06.05	Maintain financial records.		
06.06	Read and reconcile financial statements.		
06.07	Research, compare and contrast investment opportunities.		
07.0	Demonstrate the leadership and teamwork skills needed to accomplish team goals and objectives. The student will be able to:		
07.01	Employ leadership skills to accomplish organizational goals and objectives.		
07.02	Establish and maintain effective working relationships with others in order to accomplish objectives and tasks.		

<b>CTE Standards and Benchmarks</b>		<b>FS-M/LA</b>	<b>NGSSS-Sci</b>
07.03	Conduct and participate in meetings to accomplish work tasks.		
07.04	Employ mentoring skills to inspire and teach others.		
08.0	Define, demonstrate, and assess techniques to maintain professionalism. The student will be able to:		
08.01	Identify items to be included in an employment orientation.		
08.02	Identify work-related terminology.		
08.03	Role-play the importance of respect for the rights of others in the maintenance of a positive working environment.		
08.04	Demonstrate methods of displaying a positive work attitude.		
08.05	Explain initiative and resourcefulness.		
08.06	Demonstrate appropriate workplace social behavior including ability to remain calm and in control in challenging situations.		
08.07	Define and practice compassion, fairness, honesty, integrity, perseverance, courtesy, respect, responsibility, self-discipline, and trustworthiness.		
09.0	Define, demonstrate, and assess cognitive skills. The student will be able to:		
09.01	Describe the importance of time management to complete tasks accurately and on time.		
09.02	Outline strategies for effective time management.		
09.03	Describe role and relationship between values, aptitudes, abilities, goal setting, and attainment of academic and occupational skills.		
09.04	Set personal goals and develop a plan of action to achieve those goals.		
09.05	Identify problems and consequences of meeting goals.		
09.06	Describe ways to deal with success and failure.		
09.07	Exhibit awareness of and respect for others.		
09.08	Demonstrate ways to improve test-taking skills, including preparing for standardized tests.		
10.0	Define, demonstrate, and assess interpersonal and intrapersonal skills. The student will be able to:		
10.01	Describe the basic nature of self-understanding.		

<b>CTE Standards and Benchmarks</b>		<b>FS-M/LA</b>	<b>NGSSS-Sci</b>
10.02	Identify and demonstrate positive personality traits.		
10.03	Using interpersonal skills, demonstrate the ability to appropriately express feelings, reactions, ideas, opinions, wants, and needs.		
10.04	Role-play behaviors that will promote effective human relations.		
10.05	Practice the skills of communicating with customers to identify their needs and expectations.		
10.06	Practice the ability to work cooperatively with others as a team member.		
10.07	Demonstrate ability to adjust one's behavior to fit the dynamics of a situation.		
10.08	Demonstrate respect for the opinions, customs, and individual differences of others.		
10.09	Interact in a socially appropriate manner.		
10.10	Practice assuming responsibility for decisions and actions.		
10.11	Channel and control emotional reactions professionally.		
10.12	Practice setting personal priorities.		
10.13	Identify the differences between assertiveness and aggressiveness.		
10.14	Describe acceptable ways to deal with success and failure.		
11.0	Use information technology tools. The student will be able to:		
11.01	Use personal information management (PIM) applications to increase workplace efficiency.		
11.02	Employ technological tools to expedite workflow including word processing, databases, reports, spreadsheets, multimedia presentations, electronic calendar, contacts, email, and Internet applications.		
11.03	Employ computer operations applications to access, create, manage, integrate, and store information.		
11.04	Employ collaborative/groupware applications to facilitate group work.		
13.0	Define, demonstrate, and assess the importance of determining career options. The student will be able to:		
13.01	Use a variety of sources and methods to determine career interests and abilities.		
13.02	Identify and describe personal skills, interests, values, experiences, personality traits, and academic abilities.		

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
13.03 Identify non-traditional career options.		
13.04 Debate how educational level affects career choice.		
13.05 Explain importance of networking when researching occupations.		
13.06 Identify advantages of attending a trade or technical school.		
13.07 Identify career training available in the military services.		

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Work Experience 2  
**Course Number:** 8301620  
**Course Credit:** 1

**Course Description:**

This course is designed for the second year returning Work Experience student and will provide remediation when needed.

**Abbreviations:**

FS-M/LA = Florida Standards for Math/Language Arts  
 NGSSS-Sci = Next Generation Sunshine State Standards for Science

*Note: This course is pending alignment in the following categories: FS-M/LA and NGSSS-Sci.*

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
01.0 Explain the importance of employability and entrepreneurship skills. The student will be able to:		
01.01 Identify and demonstrate positive work behaviors needed to be employable.		
01.02 Develop personal career plan that includes goals, objectives, and strategies.		
01.03 Examine licensing, certification, and industry credentialing requirements.		
01.04 Maintain a career portfolio to document knowledge, skills, and experience.		
01.05 Evaluate and compare employment opportunities that match career goals.		
01.06 Identify and exhibit traits for retaining employment.		
01.07 Identify opportunities and research requirements for career advancement.		
01.08 Research the benefits of ongoing professional development.		
01.09 Examine and describe entrepreneurship opportunities as a career planning option.		
02.0 Demonstrate the importance of health, safety, and environmental management systems in organizations and the relationship of these systems to organizational performance and regulatory compliance. The student will be able to:		



<b>CTE Standards and Benchmarks</b>		<b>FS-M/LA</b>	<b>NGSSS-Sci</b>
02.01	Describe personal and jobsite safety rules and regulations that maintain safe and healthy work environments.		
02.02	Explain emergency procedures to follow in response to workplace accidents.		
02.03	Create a disaster and/or emergency response plan.		
03.0	Use oral and written communication skills to create, express, and interpret information and ideas. The student will be able to:		
03.01	Select and employ appropriate communication concepts and strategies to enhance oral and written communication in the workplace.		
03.02	Locate, organize and reference written information from various sources.		
03.03	Design, develop and deliver formal and informal presentations using appropriate media to engage and inform diverse audiences.		
03.04	Interpret verbal and nonverbal cues/behaviors that enhance communication.		
03.05	Apply active listening skills to obtain and clarify information.		
03.06	Develop and interpret tables and charts to support written and oral communications.		
03.07	Exhibit public relations skills that aid in achieving customer satisfaction.		
04.0	Define, demonstrate proficiency, and analyze the ability to apply mathematical skills. The student will be able to:		
04.15	Interpret quantitative information from tables, charts, and graphs as related to the workplace.		
04.16	Compute ratios and percentages as related to the workplace.		
04.17	Calculate distance, weight, area, volume, and/or time problems as related to the workplace.		
04.18	Determine costs, time, and resources needed to complete a task within the workplace.		
04.19	Use an advertisement to determine the total cost of several items with different quantities.		
05.0	Define, demonstrate, and maintain personal hygiene and health. The student will be able to:		
05.06	Plan a menu that includes all the major food groups.		
05.07	Identify available counseling and community services.		
05.08	Summarize need for preventive medical practices.		

CTE Standards and Benchmarks		FS-M/LA	NGSSS-Sci
05.09	Identify the physiological and social implications of personal hygiene practices.		
05.10	Demonstrate knowledge of basic first aid for self-care.		
06.0	Demonstrate money-management concepts, procedures, and strategies. The student will be able to:		
06.01	Identify and describe the services and legal responsibilities of financial institutions.		
06.02	Describe the effect of money management on personal and career goals.		
06.03	Develop a personal budget and financial goals.		
06.04	Complete financial instruments for making deposits and withdrawals.		
06.05	Maintain financial records.		
06.06	Read and reconcile financial statements.		
06.07	Research, compare and contrast investment opportunities.		
07.0	Demonstrate the leadership and teamwork skills needed to accomplish team goals and objectives. The student will be able to:		
07.01	Employ leadership skills to accomplish organizational goals and objectives.		
07.02	Establish and maintain effective working relationships with others in order to accomplish objectives and tasks.		
07.03	Conduct and participate in meetings to accomplish work tasks.		
07.04	Employ mentoring skills to inspire and teach others.		
08.0	Define, demonstrate, and assess techniques to maintain professionalism. The student will be able to:		
08.08	Demonstrate ability to take direction, accept constructive criticism, and adjust behavior to fit the dynamics of a situation.		
08.09	Define <i>ethics</i> as applicable to the workplace.		
08.10	Establish a personal code of ethics.		
08.11	Explain importance of maintaining quality standards, regular work habits, and pride in work accomplished.		
08.12	Demonstrate ability to work cooperatively in a group to resolve challenges and make decisions.		

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
08.13 Identify how individuals from diverse backgrounds offer unique contributions.		
09.0 Define, demonstrate, and assess cognitive skills. The student will be able to:		
09.09 Explain the steps involved in decision-making.		
09.10 Identify the process involved in problem-solving.		
09.11 Develop an action plan for solving problems and making decisions using critical thinking skills.		
09.12 Identify strategies for building self-esteem and enhancing decision-making skills.		
09.13 Demonstrate knowledge of the planning process.		
10.0 Define, demonstrate, and assess interpersonal and intrapersonal skills. The student will be able to:		
10.15 Demonstrate the ability to offer and accept constructive criticism.		
10.16 Identify areas where personal change and adjustment may be necessary.		
10.17 Exhibit open-mindedness towards ideas and opinions different from your own.		
11.0 Use information technology tools. The student will be able to:		
11.01 Use personal information management (PIM) applications to increase workplace efficiency.		
11.02 Employ technological tools to expedite workflow including word processing, databases, reports, spreadsheets, multimedia presentations, electronic calendar, contacts, email, and Internet applications.		
11.03 Employ computer operations applications to access, create, manage, integrate, and store information.		
11.04 Employ collaborative/groupware applications to facilitate group work.		
12.0 Define, demonstrate, and evaluate understanding of economic and entrepreneurial principles. The student will be able to:		
12.01 Define economy, free enterprise, producers, consumers, and marketplace.		
12.02 Debate why prices fluctuate as a result of supply and demand, production costs, and competition.		
12.03 Explain the impact of unemployment and underemployment on the economy.		
12.04 Define entrepreneur and entrepreneurship.		

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
12.05 Evaluate available types of business opportunities compatible with your skills and career interests.		
12.06 List advantages and disadvantages of entrepreneurship.		
12.07 Identify the behaviors and attitudes commonly found in entrepreneurs.		
12.08 Explain the primary means of going into business.		
12.09 Describe the different legal forms of business ownership.		
12.10 Identify key factors in selecting a business location.		
12.11 Compare and contrast owning a business with being an employee.		
13.0 Define, demonstrate, and assess the importance of determining career options. The student will be able to:		
13.08 Select an occupational area and identify its career opportunities, employment prospects, educational requirements, and advancement opportunities.		
13.09 Evaluate personal strengths and weaknesses in relation to the selected occupational area.		
13.10 Explain the influence of life roles on career choice.		
13.11 Analyze changes occurring in the workplace.		
13.12 Identify and locate local employment agencies and web-based job search sites.		
13.13 Review the importance of updating occupational skills and knowledge through training, continuing education, and life-long learning.		

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Work Experience 3  
**Course Number:** 8301630  
**Course Credit:** 1

**Course Description:**

This course is designed for the third year returning Work Experience student and will provide remediation when needed.

**Abbreviations:**

FS-M/LA = Florida Standards for Math/Language Arts  
 NGSSS-Sci = Next Generation Sunshine State Standards for Science

*Note: This course is pending alignment in the following categories: FS-M/LA and NGSSS-Sci.*

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
14.0 Explain the importance of employability and entrepreneurship skills. The student will be able to:		
14.01 Identify and demonstrate positive work behaviors needed to be employable.		
14.02 Develop personal career plan that includes goals, objectives, and strategies.		
14.03 Examine licensing, certification, and industry credentialing requirements.		
14.04 Maintain a career portfolio to document knowledge, skills, and experience.		
14.05 Evaluate and compare employment opportunities that match career goals.		
14.06 Identify and exhibit traits for retaining employment.		
14.07 Identify opportunities and research requirements for career advancement.		
14.08 Research the benefits of ongoing professional development.		
14.09 Examine and describe entrepreneurship opportunities as a career planning option.		
15.0 Demonstrate the importance of health, safety, and environmental management systems in organizations and the relationship of these systems to organizational performance and regulatory compliance. The student will be able to:		

<b>CTE Standards and Benchmarks</b>		<b>FS-M/LA</b>	<b>NGSSS-Sci</b>
15.01	Describe personal and jobsite safety rules and regulations that maintain safe and healthy work environments.		
15.02	Explain emergency procedures to follow in response to workplace accidents.		
15.03	Create a disaster and/or emergency response plan.		
16.0	Use oral and written communication skills to create, express, and interpret information and ideas. The student will be able to:		
16.01	Select and employ appropriate communication concepts and strategies to enhance oral and written communication in the workplace.		
16.02	Locate, organize and reference written information from various sources.		
16.03	Design, develop and deliver formal and informal presentations using appropriate media to engage and inform diverse audiences.		
16.04	Interpret verbal and nonverbal cues/behaviors that enhance communication.		
16.05	Apply active listening skills to obtain and clarify information.		
16.06	Develop and interpret tables and charts to support written and oral communications.		
16.07	Exhibit public relations skills that aid in achieving customer satisfaction.		
17.0	Define, demonstrate proficiency, and analyze the ability to apply mathematical skills. The student will be able to:		
17.01	Calculate the areas of surface and complete an accurate estimate of the cost of materials for covering those surfaces.		
17.02	Use ratios, proportions, and a scale to calculate distance on a map and calculate the square footage of rooms in a building using a scaled plan.		
17.03	Explain the "Renter's Rule."		
17.04	List the costs associated with buying a home.		
17.05	Explain the "Banker's Rule."		
17.06	Identify several different types of home mortgage loans.		
18.0	Demonstrate money-management concepts, procedures, and strategies. The student will be able to:		
18.01	Identify and describe the services and legal responsibilities of financial institutions.		
18.02	Describe the effect of money management on personal and career goals.		

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
18.03 Develop a personal budget and financial goals.		
18.04 Complete financial instruments for making deposits and withdrawals.		
18.05 Maintain financial records.		
18.06 Read and reconcile financial statements.		
18.07 Research, compare and contrast investment opportunities.		
19.0 Demonstrate the leadership and teamwork skills needed to accomplish team goals and objectives. The student will be able to:		
19.01 Employ leadership skills to accomplish organizational goals and objectives.		
19.02 Establish and maintain effective working relationships with others in order to accomplish objectives and tasks.		
19.03 Conduct and participate in meetings to accomplish work tasks.		
19.04 Employ mentoring skills to inspire and teach others.		
20.0 Define, demonstrate, and assess techniques to maintain professionalism. The student will be able to:		
20.01 Demonstrate ways to improve service to internal and external customers.		
20.02 Identify ways to develop and improve skills and traits important to the job and to the organization.		
20.03 Role-play types and methods of dealing with peer pressure.		
20.04 Demonstrate self-control when minimum direction and supervision are provided.		
20.05 Debate importance of planning to meet deadlines.		
20.06 Maintain quality standards, regular work habits, and pride in one's work.		
21.0 Define, demonstrate, and assess cognitive skills. The student will be able to:		
21.01 Demonstrate ability to think creatively and generate new ideas.		
21.02 Demonstrate the ability to conduct a systematic analysis of personal strengths and weaknesses.		
21.03 Analyze managerial skills necessary for decision making in different work related situations.		

<b>CTE Standards and Benchmarks</b>		<b>FS-M/LA</b>	<b>NGSSS-Sci</b>
22.0	Define, demonstrate, and assess interpersonal and intrapersonal skills. The student will be able to:		
22.01	Demonstrate appropriate etiquette.		
22.02	Practice stress management techniques.		
22.03	Demonstrate loyalty to the team and show commitment to the team's growth and improvement.		
22.04	Help fellow team members accomplish their tasks.		
23.0	Use information technology tools. The student will be able to:		
23.01	Use personal information management (PIM) applications to increase workplace efficiency.		
23.02	Employ technological tools to expedite workflow including word processing, databases, reports, spreadsheets, multimedia presentations, electronic calendar, contacts, email, and Internet applications.		
23.03	Employ computer operations applications to access, create, manage, integrate, and store information.		
23.04	Employ collaborative/groupware applications to facilitate group work.		
24.0	Define, demonstrate, and assess the importance of determining career options. The student will be able to:		
24.01	Identify sources of financial assistance for postsecondary education and training.		
24.02	Describe the requirements and procedures for obtaining different types of financial assistance.		
24.03	Discuss the role of professional organizations in workforce development.		
24.04	Describe apprenticeship programs.		
24.05	Develop an education and career plan.		



**Florida Department of Education  
Student Performance Standards**

**Course Title:** Work Experience 4  
**Course Number:** 8301640  
**Course Credit:** 1

**Course Description:**

This course is designed for the fourth year returning Work Experience students and will provide remediation when needed.

**Abbreviations:**

FS-M/LA = Florida Standards for Math/Language Arts  
 NGSSS-Sci = Next Generation Sunshine State Standards for Science

*Note: This course is pending alignment in the following categories: FS-M/LA and NGSSS-Sci.*

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
15.0 Demonstrate the importance of health, safety, and environmental management systems in organizations and the relationship of these systems to organizational performance and regulatory compliance. The student will be able to:		
15.01 Describe personal and jobsite safety rules and regulations that maintain safe and healthy work environments.		
15.02 Explain emergency procedures to follow in response to workplace accidents.		
15.03 Create a disaster and/or emergency response plan.		
16.0 Use oral and written communication skills to create, express, and interpret information and ideas. The student will be able to:		
16.01 Select and employ appropriate communication concepts and strategies to enhance oral and written communication in the workplace.		
16.02 Locate, organize and reference written information from various sources.		
16.03 Design, develop and deliver formal and informal presentations using appropriate media to engage and inform diverse audiences.		
16.04 Interpret verbal and nonverbal cues/behaviors that enhance communication.		
16.05 Apply active listening skills to obtain and clarify information.		

<b>CTE Standards and Benchmarks</b>		<b>FS-M/LA</b>	<b>NGSSS-Sci</b>
16.06	Develop and interpret tables and charts to support written and oral communications.		
16.07	Exhibit public relations skills that aid in achieving customer satisfaction.		
17.0	Define, demonstrate proficiency, and analyze the ability to apply mathematical skills. The student will be able to:		
17.07	Compute payments for purchases of items, including comparing and computing regular price, discount rate, and sale price.		
17.08	Use elapsed time to determine date of payment.		
17.09	Read maps and compute distances.		
17.10	Compute travel fares and hotel expenses.		
17.11	Find the exchange rate between the U.S. dollar and a variety of foreign currencies.		
17.12	Compute cost of car rentals and parking charges.		
17.13	Compare time in different time zones.		
17.14	Calculate flight times between different time zones.		
17.15	Demonstrate how to complete an expense account form.		
17.16	Explain personal allowances, withholding, dependents, exemptions, and deductions per the Internal Revenue Service.		
17.17	Complete a 1040A and a 1040 federal income tax form.		
18.0	Demonstrate money-management concepts, procedures, and strategies. The student will be able to:		
18.01	Identify and describe the services and legal responsibilities of financial institutions.		
18.02	Describe the effect of money management on personal and career goals.		
18.03	Develop a personal budget and financial goals.		
18.04	Complete financial instruments for making deposits and withdrawals.		
18.05	Maintain financial records.		
18.06	Read and reconcile financial statements.		
18.07	Research, compare and contrast investment opportunities.		

<b>CTE Standards and Benchmarks</b>		<b>FS-M/LA</b>	<b>NGSSS-Sci</b>
19.0	Demonstrate the leadership and teamwork skills needed to accomplish team goals and objectives. The student will be able to:		
19.01	Employ leadership skills to accomplish organizational goals and objectives.		
19.02	Establish and maintain effective working relationships with others in order to accomplish objectives and tasks.		
19.03	Conduct and participate in meetings to accomplish work tasks.		
19.04	Employ mentoring skills to inspire and teach others.		
21.0	Define, demonstrate, and assess cognitive skills. The student will be able to:		
21.04	Gather and use data and other information to identify causes of problems and develop appropriate strategies for solutions.		
21.05	Identify and analyze the rule or principle underlying the relationship between two or more objects for use in future applications.		
21.06	Illustrate how the ability to learn is a lifelong skill.		
22.0	Define, demonstrate, and assess interpersonal and intrapersonal skills. The student will be able to:		
22.05	Demonstrate ability to work with individuals from different cultures.		
22.06	Explain importance of being socially flexible and receptive to new ideas.		
23.0	Use information technology tools. The student will be able to:		
23.01	Use personal information management (PIM) applications to increase workplace efficiency.		
23.02	Employ technological tools to expedite workflow including word processing, databases, reports, spreadsheets, multimedia presentations, electronic calendar, contacts, email, and Internet applications.		
23.03	Employ computer operations applications to access, create, manage, integrate, and store information.		
23.04	Employ collaborative/groupware applications to facilitate group work.		
24.0	Define, demonstrate, and assess the importance of determining career options. The student will be able to:		
24.06	Discuss sex equity in terms of career choice.		
24.07	Assess differences in wages, annual income, and job opportunities based on geographic location, gender, ethnicity, and age.		

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
24.08 Explain the process for obtaining school transcripts.		
24.09 Demonstrate ability to make career decisions based on self-awareness and an awareness of various career clusters and occupations.		
24.10 Assess and use information to develop a lifelong career plan and identify problems that may interfere with the plan.		
24.11 Assess plan for gaining mentors and obtaining knowledge of opportunities for continuing education, cross-training, retraining, and additional certification and degrees.		

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Work Experience OJT  
**Course Number:** 8301650  
**Course Credit:** Multiple

**Course Description:**

This course is designed to provide students with realistic on-the-job training experience to acquire and apply knowledge, skills, and attitudes in an occupational field. The respective cooperative teacher and employer provide on-the-job supervision. This on-the-job portion of the program may be repeated for credit. Specific job skills must be identified on a job skills form. Selected job skills will be evaluated a minimum of once during each grading period.

**Abbreviations:**

FS-M/LA = Florida Standards for Math/Language Arts  
 NGSSS-Sci = Next Generation Sunshine State Standards for Science

*Note: This course is pending alignment in the following categories: FS-M/LA and NGSSS-Sci.*

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
25.0 Perform designated job skills. The student will be able to:		
25.01 Demonstrate job performance skills as outlined on the job skills form.		
25.02 Apply safety procedures while on the job.		
25.03 Display an acceptable level of productivity and quality control.		
25.04 Demonstrate appropriate dress and grooming habits.		
25.05 Demonstrate reacting to feedback in a positive manner.		
25.06 Communicate effectively with customers, co-workers, and management.		
25.07 Demonstrate decision-making and problem-solving skills.		
25.08 Demonstrate punctuality and reliability by working as scheduled.		
25.09 Demonstrate pride in work by completing work correctly and quickly.		

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
25.10 Demonstrate personal management skills (self-directed and self-controlled) including intrinsic motivation.		
25.11 Display an understanding and appreciation for the dignity and worth of honest labor.		
25.12 Demonstrate flexibility, creativity, innovation, and adaptability.		
25.13 Demonstrate ability to interpret and comply with employer rules and regulations.		
25.14 Demonstrate an understanding of the organizational structure of the workplace.		
25.15 Demonstrate flexibility and the ability to perform a wide range of functions.		
26.0 Describe the importance of professional ethics and legal responsibilities. The student will be able to:		
26.01 Evaluate and justify decisions based on ethical reasoning.		
26.02 Evaluate alternative responses to workplace situations based on personal, professional, ethical, legal responsibilities, and employer policies.		
26.03 Identify and explain personal and long-term consequences of unethical or illegal behaviors in the workplace.		
26.04 Interpret and explain written organizational policies and procedures.		
27.0 Perform designated recordkeeping skills. The student will be able to:		
27.01 List the job skills to be performed in the specified occupation.		
27.02 Maintain appropriate employment records (training agreement, time card, and job skills form).		

## Additional Information

### Laboratory Activities

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### Special Notes

The following criteria are to be used in the development of admission procedures for each student prior to entry into the program:

- The student has a truancy problem.
- The student needs to work in order to continue his/her education.
- The student is economically disadvantaged.
- The student is academically disadvantaged.
- The student has a negative attitude toward work, school, and/or society.
- The student has a poor self-concept.
- The student feels alienated.
- The student lacks self-discipline.
- The student has a limited attention span.
- The student is overage in grade level.
- The student has trouble relating to class work.
- The student has a lack of interest in school.
- The student needs to be supervised at the work location.
- Other (specify) \_\_\_\_\_.

An individual guidance plan identifying admission criteria should be developed for each student prior to entry into the program, and should include the Work Experience course number, school year, and date of entry. Job counseling sessions between the teacher/coordinator and each student should be documented for each grading period. Flexible scheduling can be implemented, as agreed upon by the teacher/coordinator and guidance personnel, when such scheduling is found to be needed to meet the student's needs.

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

## **Career and Technical Student Organization (CTSO)**

The following list identifies the appropriate career and technical student organizations for providing leadership training and reinforcing specific career and technical skills: Business Professionals of America (BPA); DECA; Family, Career and Community Leaders of America (FCCLA); FFA; Florida Public Service Association (FPSA); Florida Technology Student Association (FL-TSA); Future Business Leaders of America – Phi Beta Lambda (FBLA-PBL); HOSA – Future Health Professionals (HOSA); SkillsUSA. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

## **Cooperative Training – OJT**

On-the-job training is appropriate but not required for this program. Whenever offered, the rules, guidelines, and requirements specified in the OJT framework apply.

## **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Some secondary students with disabilities (ESE) may need additional time (i.e., longer than the regular school year), to master the student performance standards associated with a regular course or a modified course. If needed, a student may enroll in the same career and technical course more than once. Documentation should be included in the IEP that clearly indicates that it is anticipated that the student may need an additional year to complete a Career and Technical Education (CTE) course. The student should work on different competencies and new applications of competencies each year toward completion of the CTE course. After achieving the competencies identified for the year, the student earns credit for the course. It is important to ensure that credits earned by students are reported accurately. The district's information system must be designed to accept multiple credits for the same course number for eligible students with disabilities.



Florida Department of Education  
Curriculum Framework

**Program Title:** Diversified Career Technology  
**Program Type:** Career Preparatory  
**Career Cluster:** Diversified Education

**Secondary – Career Preparatory**

Program Number	8303000
CIP Number	10988610CP
Grade Level	9-12, 30, 31
Standard Length	Multiple credits
Teacher Certification	Refer to the <b><u>Program Structure</u></b> section.
CTSO	BPA, DECA, FBLA-PBL, FCCLA, FFA, FL-TSA, FPSA, HOSA, SkillsUSA
SOC Codes (all applicable)	N/A

**Purpose**

This program offers a sequence of courses that provides coherent and rigorous content aligned with challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and careers in Diversified Education; provides technical skill proficiency, and includes competency-based applied learning that contributes to the academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, general employability skills, technical skills, and occupation-specific skills, and knowledge of all aspects of the Diversified Education career cluster. This program offers a broad foundation of knowledge and skills to prepare students for employment in the selected occupational area.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Program Structure**

This program is a planned sequence of instruction consisting of four courses.

To teach the courses listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the secondary program structure:

Course Number	Course Title	Teacher Certification	Length	SOC Code	Level	Graduation Requirement
8303010	Diversified Career Technology Principles	ANY FIELD WHEN CERT REFLECTS BACHELOR OR HIGHER ANY VOC FIELD OR COVERAGE COOP TEACH @7 COOR DCT @4 @7 COOR WK EXP @7 7G MKTG 1@2	1 credit	N/A	2	
8300410	Diversified Career Technology - OJT		multiple credits	N/A	2	
8303020	Diversified Career Technology Applications		1 credit	N/A	2	
8303030	Diversified Career Technology Management		1 credit	N/A	2	

(Graduation Requirement Abbreviations- EQ= Equally Rigorous Science, PA= Practical Arts, EC= Economics)

### **Florida Standards for Technical Subjects**

*Florida Standards (FS) for English Language Arts and Literacy in History/Social Studies, Science, and Technical Subjects are the critical reading and writing literacy standards designed for grade 6 and above. These standards are predicated on teachers of history/social studies, science, and technical subjects using their content area expertise to help students meet the particular challenges of reading, writing, speaking, listening, and language in their respective fields. The FS for Mathematical Practices are designed for grades K-12 and describe varieties of expertise that educators at all levels should seek to develop in their students. These practices rest on important “processes and proficiencies” with longstanding importance in mathematics education.*

**Instructors must incorporate the Florida Standards for Technical Subjects and Mathematical Practices throughout instruction of this CTE program.**

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL’s need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

## **Common Career Technical Core – Career Ready Practices**

Career Ready Practices describe the career-ready skills that educators should seek to develop in their students. These practices are not exclusive to a Career Pathway, program of study, discipline or level of education. Career Ready Practices should be taught and reinforced in all career exploration and preparation programs with increasingly higher levels of complexity and expectation as a student advances through a program of study.

1. Act as a responsible and contributing citizen and employee.
2. Apply appropriate academic and technical skills.
3. Attend to personal health and financial well-being.
4. Communicate clearly, effectively and with reason.
5. Consider the environmental, social and economic impacts of decisions.
6. Demonstrate creativity and innovation.
7. Employ valid and reliable research strategies.
8. Utilize critical thinking to make sense of problems and persevere in solving them.
9. Model integrity, ethical leadership and effective management.
10. Plan education and career path aligned to personal goals.
11. Use technology to enhance productivity.
12. Work productively in teams while using cultural/global competence.

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate knowledge and application of workplace employability skills.
- 02.0 Demonstrate, apply, and implement knowledge of environmental, health, and safety issues.
- 03.0 Demonstrate, apply, and implement an understanding of professional, legal, and ethical responsibilities.
- 04.0 Demonstrate, apply, and implement knowledge of financial skills and planning.
- 05.0 Demonstrate, apply, and implement leadership skills.
- 06.0 Demonstrate, apply, and implement proficiency in communication skills.
- 07.0 Demonstrate knowledge of human resources and labor issues as well as the social, legal, and economic aspects of employment.
- 08.0 Demonstrate an understanding of national and international economic principles.
- 09.0 Assess personal strengths and weaknesses as they relate to job objectives, career exploration, personal development, and life goals.
- 10.0 Demonstrate an understanding and application of technology in the workplace.
- 11.0 Demonstrate an understanding of the role of management and marketing in the decision making process for different work situations.
- 12.0 Demonstrate and apply an understanding of entrepreneurship principles.
- 13.0 Demonstrate competencies in a specific career.
- 14.0 Demonstrate legal and ethical behavior within the role and scope of specific job responsibilities.
- 15.0 Perform designated recordkeeping skills.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Diversified Career Technology Principles  
**Course Number:** 8303010  
**Course Credit:** 1

**Course Description:**

This course is designed to enable each student to demonstrate employability skills; environmental, health, and safety skills; professional, legal, and ethical responsibilities; financial skills; leadership skills; communication skills; human resources and labor skills; America’s economic principles; entrepreneurship principles; relate planning methods to life and career goals; and use of industry/technology principles in the workplace.

**Abbreviations:**

FS-M/LA = Florida Standards for Math/Language Arts  
 NGSSS-Sci = Next Generation Sunshine State Standards for Science

*Note: This course is pending alignment in the following categories: FS-M/LA and NGSSS-Sci.*

<b>CTE Standards and Benchmarks</b>		<b>FS-M/LA</b>	<b>NGSSS-Sci</b>
01.0	Demonstrate knowledge and application of workplace employability skills. The student will be able to:		
01.01	Identify resources used in a job search (e.g., newspaper, Internet, networking).		
01.02	Discuss importance of drug tests and criminal background checks in identifying possible employment opportunities.		
01.03	Identify steps of the job application process including arranging for references and proper documentation (e.g., green card).		
01.04	Identify procedures and documents required when applying for a job (e.g., application, W-4, I-9).		
01.05	Prepare a résumé (electronic and traditional), letter of application, follow-up letter, acceptance/rejection letter, letter of resignation, and letter of recommendation.		
01.06	Demonstrate appropriate dress and grooming for employment.		
01.07	Demonstrate effective interviewing skills (behavioral).		
01.08	Describe methods for handling illegal interview and application questions.		
01.09	Discuss state and federal labor laws regulating the workplace (e.g., Child Labor Law,		

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
sexual harassment, EEOC, ADA, FMLA).		
01.10 Identify positive work attitudes and behaviors such as honesty, compassion, respect, responsibility, fairness, trustworthiness, and caring.		
01.11 Describe importance of producing quality work and meeting performance standards.		
01.12 Identify qualities typically required for promotion (e.g., productivity, dependability, responsibility).		
01.13 Identify how to prepare for job separation and re-employment.		
01.14 Write a job description that includes the responsibilities of an entry-level position.		
01.15 Prepare a classified ad for an entry-level position.		
01.16 Create a list of interview questions for an entry-level position.		
02.0 Demonstrate, apply, and implement knowledge of environmental, health, and safety issues. The student will be able to:		
02.01 Identify health and safety regulatory agencies responsible for overseeing the work environment and the functions they perform (e.g., OSHA, EPA).		
02.02 Describe importance of complying with federal, state, and local agency regulations.		
02.03 Explain purpose of Workers' Compensation.		
02.04 Identify types of hazards in the workplace.		
02.05 Describe types of personal protective equipment.		
02.06 Describe necessary emergency evacuation procedures.		
02.07 Identify hazardous chemicals and their characteristics.		
02.08 Define meaning of "drug-free workplace."		
02.09 Identify causes of accidents on the job (e.g., human error).		
02.10 Identify routine security precautions in the workplace.		
02.11 Report on violence in the workplace.		
02.12 Identify basic safety training techniques to deal with medical emergencies in the workplace.		
03.0 Demonstrate, apply, and implement an understanding of professional, legal, and ethical		

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
responsibilities. The student will be able to:		
03.01 Describe workplace codes of professional/business conduct.		
03.02 Identify ways to work cooperatively in various settings with diverse populations.		
03.03 Explain importance of self-control and initiative when minimum direction and supervision are given.		
03.04 Explain concepts of integrity, credibility, and reliability.		
03.05 Demonstrate such interpersonal skills as courtesy, loyalty, and being a team player.		
03.06 Define and discuss issues involving gender equity, disability, age, and sexual harassment.		
03.07 Demonstrate importance of adhering to schedules and deadlines.		
03.08 Define ethics and describe several ethical situations that could arise within a school or workplace setting.		
03.09 Identify and define friendliness, adaptability, empathy, and politeness as relates to group settings.		
03.10 Identify key ways a company can benefit its community.		
03.11 Describe importance of volunteerism.		
03.12 Describe importance of providing access for the physically challenged.		
04.0 Demonstrate, apply, and implement knowledge of financial skills and planning. The student will be able to:		
04.01 Compute and compare gross pay, net pay, overtime pay, and specific payroll deductions.		
04.02 Compute different methods of monetary compensation (e.g., annual salary, hourly wages, commission, piecework).		
04.03 Prepare a month's budget based on income and expenses.		
04.04 Describe importance of long-term personal financial planning.		
04.05 Evaluate various investment opportunities for financial growth.		
04.06 Calculate exemptions, deductions, and taxable income and use tax tables to prepare a federal income tax form.		
04.07 Describe importance of maintaining an accurate checkbook balance.		

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
04.08 Compare personal insurance costs using a variety of deductibles and coverages.		
04.09 Identify, compare, and contrast a variety of available housing options.		
04.10 Perform mathematical calculations appropriate to a specific occupation (e.g., ratios, proportions, scales).		
05.0 Demonstrate, apply, and implement leadership skills. The student will be able to:		
05.01 Describe qualities of an effective leader.		
05.02 Describe different methods of leadership.		
05.03 Identify opportunities available for development of leadership skills in a career and technology student organization.		
05.04 Demonstrate use of workplace etiquette.		
05.05 Demonstrate use of parliamentary procedure.		
05.06 Identify purposes and functions of professional/trade and student organizations.		
05.07 Identify roles and responsibilities of organization members.		
05.08 Develop a list of qualities necessary for being an effective team player.		
05.09 Work cooperatively within a group to achieve organizational goals.		
06.0 Demonstrate, apply, and implement proficiency in communication skills. The student will be able to:		
06.01 Explain importance of effective written and verbal communication.		
06.02 Read and comprehend written communications.		
06.03 Compare and contrast different forms of written business communication as utilized in the workplace.		
06.04 Prepare a business letter, memorandum, fax, and e-mail.		
06.05 Identify and utilize methods to improve oral communication skills.		
06.06 Prepare and deliver an introductory speech to an audience.		
06.07 Identify and utilize methods to improve listening strategies.		
06.08 Identify means of nonverbal communication.		



CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
06.09 Demonstrate proper businesslike methods of placing/receiving telephone calls and recording telephone messages.		
06.10 Demonstrate ability to listen to and follow directions.		
06.11 Discuss importance of developing networking skills to expand business contacts.		
06.12 Discuss importance of providing clear directions, descriptions, and explanations.		
06.13 Demonstrate ability to locate, understand, and interpret information found in contracts, trade journals, manuals, graphs, schedules, charts, diagrams, tables of contents, indexes, labels, and Internet resources.		
07.0 Demonstrate knowledge of human resources and labor issues as well as the social, legal, and economic aspects of employment. The student will be able to:		
07.01 Explain importance of a written job description.		
07.02 Describe various work schedules (e.g., flex scheduling).		
07.03 Describe workplace usage of teams to increase productivity and product quality.		
07.04 Identify and discuss the role of the employee as a team member.		
07.05 Describe employee recognition systems for individuals and teams.		
07.06 Compare advantages and disadvantages of self-employment (independent contractor) and employment by a company.		
07.07 Explain the change in the role and purpose of labor unions from their inception in the early 1900's to the present day.		
08.0 Demonstrate an understanding of national and international economic principles. The student will be able to:		
08.01 Explain principles of America's economic system.		
08.02 Describe government's involvement in the economy.		
08.03 Identify and describe economic impact of employment.		
08.04 Explain interaction between supply and demand and its effect on the economy.		
08.05 Analyze and discuss the role of Social Security.		
08.06 Discuss impact of the economy on the stock market and private enterprise.		
08.07 Discuss examples of how the economy impacts business and industry.		

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
08.08 Describe elements and economic implications of the Consumer Price Index (CPI).		
09.0 Assess personal strengths and weaknesses as they relate to job objectives, career exploration, personal development, and life goals. The student will be able to:		
09.01 Identify job skills and personal characteristics necessary for career success.		
09.02 Identify high skill/high wage occupations requiring specialized training with growth potential for future employment.		
09.03 Explain relationship between life roles and job and career roles.		
09.04 Differentiate between traditional and non-traditional career options.		
09.05 Explain how changes in one's personal and professional life affect career decisions.		
09.06 Explain importance of updating occupational skills and knowledge through continued education and training and the use of learning-to-learn techniques.		
09.07 Describe steps involved in planning for education, career, and life goals.		
09.08 List sources of career information.		
09.09 Complete and analyze a personal traits inventory and use the results to select a career goal.		
09.10 Match desires, abilities, temperaments, and assets to a career goal.		
10.0 Demonstrate an understanding and application of technology in the workplace. The student will be able to:		
10.01 Identify types of technology used in the workplace.		
10.02 Describe applications of technology in the workplace.		
10.03 Identify emerging technologies and market trend changes.		
10.04 Discuss ethical issues involving use of technology.		
10.05 Describe importance of acquiring, analyzing, and managing information efficiently and effectively.		
10.06 Discuss importance of cross-training.		
11.0 Demonstrate an understanding of the role of management and marketing in the decision making process for different work situations. The student will be able to:		
11.01 Describe roles, functions, levels, and types of managers.		

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
11.02 Discuss evolution of management from the Industrial Revolution to current philosophies and theories.		
11.03 Identify a variety of management styles.		
11.04 Cite examples of how workers adjust to different management styles.		
11.05 Identify a variety of corporate organizational structures.		
11.06 Identify how a corporate “chain of command” works.		
11.07 Describe significance of a company's “corporate culture.”		
11.08 Describe importance of achieving internal and external customer satisfaction.		
11.09 Identify examples of how cultural diversity can affect the workplace.		
11.10 List reasons why written policies are needed in the workplace.		
11.11 Discuss role of ethics and morality in management.		
11.12 Describe how a company's marketing efforts can affect employees and customers.		
12.0 Demonstrate and apply an understanding of entrepreneurship principles.		

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Diversified Career Technology – OJT  
**Course Number:** 8300410  
**Course Credit:** Multiple

**Course Description:**

This course is designed to enable each student to demonstrate competencies in a specific career and to demonstrate legal and ethical behavior within the role and scope of job responsibilities through a realistic, on-the-job training experience. An individualized training plan is developed and utilized to ensure that training is provided which will develop the necessary competencies/skills in order for the student to become competent in the occupation for which he/she is being trained. The training plan is the "curriculum" for the on-the-job training and the time card is the attendance record.

**Abbreviations:**

FS-M/LA = Florida Standards for Math/Language Arts  
 NGSSS-Sci = Next Generation Sunshine State Standards for Science

*Note: This course is pending alignment in the following categories: FS-M/LA and NGSSS-Sci.*

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
13.0 Demonstrate competencies in a specific career – the student will able to:		
13.01 Demonstrate job performance skills as outlined in training plan.		
13.02 Exhibit effective workplace safety practices including use of protective devices.		
13.03 Display an acceptable level of productivity and quality control.		
13.04 Demonstrate effective written and oral communication and listening skills when interacting with customers, co-workers, and managers.		
13.05 Demonstrate decision-making and problem-solving processes and techniques used in the workplace.		
13.06 Demonstrate acceptable work habits and conduct in the workplace as defined by company policy.		
13.07 Demonstrate an understanding of the company’s vision and mission statements.		
13.08 Demonstrate an understanding of a company’s goals and objectives.		

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
13.09 Demonstrate familiarity with the company's products and services.		
13.10 Demonstrate the ability to identify authority, rights, and responsibilities of both employers and employees.		
14.0 Demonstrate legal and ethical behavior within the role and scope of specific job responsibilities. The student will be able to:		
14.01 Demonstrate legal and ethical behavior within the scope of job responsibilities.		
14.02 Demonstrate the ability to resolve customer, employee, and employee/employer problems and concerns.		
14.03 Follow policies and procedures affecting the safety, health, and well-being of all members of a workplace setting.		
14.04 Exhibit behavior supporting and promoting cultural and ethnic diversity.		
14.05 Recognize and report signs of substance abuse.		
14.06 Demonstrate interpersonal skills, which enhance team productivity and foster positive work ethics.		
14.07 Demonstrate appropriate dress and grooming habits for the workplace environment.		
15.0 Perform designated recordkeeping skills. The student will be able to:		
15.01 Identify job tasks that presently are and will be in the future performed in the specified occupation (training plan).		
15.02 Indicate on a training plan as competencies are mastered.		
15.03 Maintain a record of employment hours and wages for auditing and budgetary purposes (e.g., time cards, budget sheets).		
15.04 Maintain an up-to-date, signed training agreement.		

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Diversified Career Technology Applications  
**Course Number:** 8303020  
**Course Credit:** 1

**Course Description:**

This course is designed to enable each student to apply environmental, health, and safety skills; professional, legal, and ethical responsibilities; financial management skills; leadership skills; social, legal, and economic aspects of employment; international economic principles; components of a business plan; decision-making skills to life and career goals; technical skills; and the functions of management.

**Abbreviations:**

FS-M/LA = Florida Standards for Math/Language Arts  
 NGSSS-Sci = Next Generation Sunshine State Standards for Science

*Note: This course is pending alignment in the following categories: FS-M/LA and NGSSS-Sci.*

<b>CTE Standards and Benchmarks</b>		<b>FS-M/LA</b>	<b>NGSSS-Sci</b>
01.0	Demonstrate knowledge and application of workplace employability skills. The student will be able to:		
01.17	Develop a detailed strategy for applying for a job in a specific career.		
01.18	Create a portfolio of employment opportunities for a specific career (e.g., newspaper, Internet, magazines).		
01.19	Create a portfolio of documents for job placement (e.g., résumé, letters of recommendation, employer evaluations, awards, evidence of participation in school, community, volunteer activities).		
01.20	Explain importance of understanding corporate policy.		
01.21	Explain importance of staying up-to-date on social, technical, and economic changes.		
02.0	Demonstrate, apply, and implement knowledge of environmental, health, and safety issues. The student will be able to:		
02.13	Demonstrate knowledge of types of industrial waste streams and treatments (e.g., air emissions, hazardous wastes, recycling programs).		
02.14	Analyze safety and health precautions of a business.		

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
02.15 Identify potentially hazardous situations and apply appropriate solutions.		
02.16 Develop an action plan for participating in a health and recreation program.		
02.17 Explain importance of CPR and emergency first aid training.		
03.0 Demonstrate, apply, and implement an understanding of professional, legal, and ethical responsibilities. The student will be able to:		
03.13 Analyze and discuss codes of ethics for a workplace.		
03.14 Describe self-management techniques in both work and life roles.		
03.15 Describe methods used to encourage both ethical and social responsibility in an organization.		
03.16 Describe why the public's perception of a company is important.		
03.17 Report on a legal issue regarding a violation of ethical behavior using current resources.		
03.18 Identify an example of how a political decision can effect standard business practices.		
03.19 Describe importance of an EAP (Employee Assistance Program).		
03.20 Describe a will, health-care power of attorney, and living will.		
04.0 Demonstrate, apply, and implement financial skills and planning. The student will be able to:		
04.11 Identify and analyze various financial data located in current publications.		
04.12 Compute and discuss a variety of business-related financial calculations (e.g., payroll, interest rates, profit margins).		
04.13 Develop a cash flow projection of personal income and expenses.		
04.14 Identify various types of contracts (e.g., lease agreement, contract for purchase of real estate, bank loan application).		
04.15 Demonstrate knowledge of investing via a simulation activity (e.g., stocks, real estate, collectibles, IRA).		
04.16 Identify types of insurance applicable to the workplace.		
04.17 Describe importance of accounting in a business.		
04.18 Describe advantages and disadvantages to a business of granting credit.		

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
05.0 Demonstrate, apply, and implement leadership skills. The student will be able to:		
05.10 Create and communicate a vision/mission statement for a student organization.		
05.11 Demonstrate ability to use creative problem solving, decision making, and critical thinking strategies.		
05.12 Demonstrate effective team building skills.		
05.13 Demonstrate respect for opinions, customs, and individual differences of others.		
05.14 Participate in a community or school service project.		
05.15 Develop a public relations strategy to communicate the positive community impact of cooperative education.		
06.0 Demonstrate, apply, and implement proficiency in communication skills. The student will be able to:		
06.14 Design personal and business letterhead, memo, and fax forms.		
06.15 Interview and prepare a vitae of a community leader or business person.		
06.16 Evaluate a speech or sales presentation, identifying effective communication techniques.		
06.17 Identify obstacles to communication.		
06.18 Deliver a speech using visual aids.		
06.19 Demonstrate effective negotiation skills.		
06.20 Demonstrate conflict and dispute resolution techniques.		
07.0 Demonstrate knowledge of human resources and labor issues as well as the social, legal and economic aspects of employment. The student will be able to:		
07.08 Describe training and development programs available in the workplace.		
07.09 Demonstrate an understanding of the business environment (e.g., corporate culture, goals, values).		
07.10 Describe the importance of cultural sensitivity.		
07.11 Define, compare, and contrast several company policies regarding raises and promotions.		
07.12 Compare and contrast roles and responsibilities of the union-member employee and the non-union manager.		



CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
07.13 Explain the impact of worker productivity, downsizing, rightsizing, outsourcing, contract employment, and layoffs in terms of recent trends in employment.		
07.14 Analyze current labor market, its structure, its constituents, its level of unemployment and underemployment.		
07.15 Define risk management in terms of employer liability.		
07.16 Describe differences between today's typical employee benefit package and that of 25 years ago.		
07.17 Discuss the collective bargaining process and the issues negotiated between management and labor.		
08.0 Demonstrate an understanding of national and international economic principles. The student will be able to:		
08.09 List, describe, and compare the characteristics of selected global economic systems.		
08.10 List, describe, and compare the characteristics of diverse cultures and their impact on business.		
08.11 Identify reasons for and methods of promoting international trade.		
08.12 Explain the term "balance of trade" and its impact on a country's economy.		
08.13 Describe circular flow of economic activity.		
08.14 Identify environmental and social problems associated with economic growth.		
08.15 Identify, describe, and analyze role of regulatory agencies.		
09.0 Assess personal strengths and weaknesses as they relate to job objectives, career exploration, and personal development, and life goals. The student will be able to:		
09.11 Prepare a five-year education and career development plan.		
09.12 Prepare a five-paragraph essay on a specific career.		
09.13 Interview and create a report on the career goals of an entry-level and of a management level employee.		
09.14 Analyze relationship between career planning and goal attainment.		
09.15 Shadow a professional in a specific career.		
09.16 Maintain a journal on specific career-related experiences.		
10.0 Demonstrate an understanding and application of technology in the workplace. The student will be able to:		

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
10.07 Prepare a document using database software.		
10.08 Prepare a document using spreadsheet software.		
10.09 Produce a report, which includes graphs, charts, and/or tables.		
10.10 Evaluate a specific company's policy for insuring security and protection of computerized data.		
10.11 Compare and contrast emerging technologies.		
11.0 Demonstrate an understanding of the role of management and marketing in the decision making process for different work situations. The student will be able to:		
11.13 Explain impact on and uses of the Internet in marketing products and services.		
11.14 Describe differences between horizontally and vertically (traditionally) organized companies.		
11.15 Describe how a company organizes its departments/divisions.		
11.16 Differentiate between roles and responsibilities of top executives and those of lower-level managers.		
11.17 Identify and describe the four basic categories of resources management is responsible for coordinating (e.g., human, financial, material, information).		
11.18 Name and define functions of management (e.g., planning, organizing, staffing, directing, controlling).		
11.19 Analyze management techniques used by effective managers.		
11.20 Identify, compare, and contrast various employee motivational programs.		
11.21 Explain how motivation, leadership, and communication influence people within an organization.		
11.22 Describe methods used in training and development.		
11.23 Discuss importance of a manager's philosophy of management in creating a positive work environment.		
11.24 Discuss role and importance of a performance appraisal.		
11.25 Identify key components of a company's "mission statement."		
12.0 Demonstrate and apply an understanding of entrepreneurship principles. The student will be able to:		
12.01 Define entrepreneurship and explain its role in the free enterprise system.		

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
12.02 Identify various types of business ownership and list the advantages and disadvantages of each.		
12.03 Identify and discuss the personality traits and abilities of a successful entrepreneur (e.g., versatility, adaptability).		
12.04 Interpret meaning of achievement motivation and the importance of independence to the entrepreneur.		
12.05 Identify risks affecting the entrepreneur.		
12.06 Identify strategies and methods for generating a business idea.		
12.07 Identify principles of marketing, selling, financing, and pricing pertinent to entrepreneurship.		
12.08 Identify steps necessary to plan and start a business (e.g., evaluate need, site selection, marketing plan, financial plan, management plan).		
12.09 Identify resources available to assist the new entrepreneur [e.g., Small Business Administration (SBA), Service Corp. of Retired Executives (SCORE)]		
12.10 Identify types and sources of government regulations and taxes that may affect a business.		
12.11 Identify communication and technology skills used in entrepreneurship.		
12.12 Compare business failure/success rates in different industries.		

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Diversified Career Technology Management  
**Course Number:** 8303030  
**Course Credit:** 1

**Course Description:**

This course is designed to enable each student to implement competency and mastery in the areas of employability (human resource); environmental, health, and safety; professional, legal and ethical workplace responsibilities; financial planning; leadership skills; communication skills; labor and human resource issues related to the workplace; global and economic issues; a business plan; employability skills related to life and career goals; managerial/supervisory uses of technology; the five functions of management; the role of the manager; and technical and production skills.

**Abbreviations:**

FS-M/LA = Florida Standards for Math/Language Arts  
 NGSSS-Sci = Next Generation Sunshine State Standards for Science

*Note: This course is pending alignment in the following categories: FS-M/LA and NGSSS-Sci.*

<b>CTE Standards and Benchmarks</b>		<b>FS-M/LA</b>	<b>NGSSS-Sci</b>
01.0	Demonstrate knowledge and application of workplace employability skills. The student will be able to:		
01.22	Network with individuals in a specific career field and report findings.		
01.23	Write a job description, which includes the responsibilities of a managerial position.		
01.24	Prepare a classified ad for a managerial level position.		
01.25	Develop a list of criteria to evaluate applicant résumés.		
01.26	Prepare a form letter for a specific business listing application procedures for employment.		
01.27	Create a list of interview questions for a managerial-level position.		
01.28	Create an evaluation measurement tool to be used to rate applicants.		
01.29	Develop a company policy outlining dress and grooming standards.		

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
01.30 Create an evaluation form to rate employee performance.		
02.0 Demonstrate, apply, and implement knowledge of environmental, health, and safety issues. The student will be able to:		
02.18 Prepare a safety plan and checklist for a small business.		
02.19 Create a map designating emergency exits and evacuation routes for a small business.		
03.0 Demonstrate, apply, and implement an understanding of professional, legal, and ethical workplace responsibilities. The student will be able to:		
03.21 Develop a code of ethics for a workplace.		
03.22 Develop an outline explaining the role of an EAP (Employee Assistance Program) representative and list the services he/she might provide.		
04.0 Demonstrate, apply, and implement knowledge of financial skills and planning. The student will be able to:		
04.19 Prepare an analysis of a current business utilizing its annual report.		
04.20 Identify sources of funding for a business.		
04.21 Describe how a company estimates and bids for a contract.		
04.22 Describe importance of cost containment in a company.		
04.23 Evaluate insurance needs for a specific business.		
05.0 Demonstrate, apply, and implement leadership skills. The student will be able to:		
05.16 Plan, implement, and evaluate a fund raising event.		
05.17 Develop, implement, and evaluate a public relations project (e.g., student organization function, school-wide project, community project).		
06.0 Demonstrate, apply, and implement proficiency in communication skills. The student will be able to:		
06.21 Create a presentation using current technology.		
06.22 Create a measurement tool for evaluating telephone communications.		
06.23 Develop a company policy regarding employee use of company telecommunications (e.g., fax, e-mail, Internet).		
07.0 Demonstrate knowledge of human resources and labor issues as well as the social, legal, and economic aspects of employment. The student will be able to:		

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
07.18 Design an employee compensation schedule and benefits package.		
07.19 Compute economic value of a company paid benefit package.		
07.20 Create a job rotation schedule for a specific company.		
07.21 Develop a vision/mission statement for a company.		
08.0 Demonstrate an understanding of national and international economic principles. The student will be able to:		
08.16 Analyze current events concerning issues relevant to international business.		
08.17 Compute exchange rates and buying power of various foreign currencies including the Euro.		
08.18 Explain impacts of the aging populations of Western countries and the rapidly growing populations of developing countries.		
08.19 Discuss economic effects of the rate of growth in developed and developing nations.		
08.20 Explain movement toward globalization and the reasons behind this economic trend.		
10.0 Demonstrate an understanding and application of technology in the workplace. The student will be able to:		
10.12 Demonstrate uses of equipment to communicate instructions to employees.		
10.13 Demonstrate uses of equipment to process information (e.g., 10-key, electronic cash register, OCR scanner, financial calculator, computer).		
10.14 Research and compare currently available software packages.		
10.15 Create an employee database to be used for scheduling and payroll.		
10.16 Create a customer/client database (e.g., mail merge, labels).		
10.17 Create a project using an integrated software package.		
10.18 Create a presentation utilizing a multimedia software package.		
10.19 Demonstrate methods of using trouble-shooting techniques for technology-related problems.		
10.20 Determine costs, time, and resources needed to complete a task within the workplace.		
10.21 Select and use a variety of electronic media, such as the Internet, information services, and desktop-publishing software programs to create, revise, retrieve, and verify information.		

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
10.22 Analyze a “quality improvement process” for labor and/or equipment.		
11.0 Demonstrate an understanding of the role of management and marketing in the decision making process for different work situations. The student will be able to:		
11.26 Identify and describe steps in the planning process.		
11.27 Define Management By Objectives (MBO).		
11.28 Develop an organization chart to illustrate line and staff relationships.		
11.29 Identify how to plan personnel needs and how to find employees for specific positions.		
11.30 Explain how a self-managing team interacts in manufacturing and service corporations (e.g., marketing, operations, finance, and human resources).		
11.31 Describe responsibilities for selecting, training, and appraising employees.		
11.32 Describe uses and effects of “job rotation,” “job enlargement,” “job enrichment,” and “participative management.”		
11.33 Identify steps for avoiding difficulties resulting from delegation.		
11.34 Define principles of <i>chain of command</i> and <i>span of control</i> .		
11.35 Justify the importance of accountability.		
11.36 Evaluate one theory of management and discuss its implementation in a particular workplace.		
11.37 Develop an outline explaining the role of the manager in conflict management.		
11.38 Design a potential management conflict resolution strategy for a specific workplace problem.		
11.39 Develop an employee motivational program for an organization.		
11.40 Evaluate effect of profit and loss on a business and how it affects the manager's productivity rating.		
11.41 Explain Total Quality Management (TQM) and the strategy of continuous improvement.		
11.42 Differentiate between data processing and Management Information Systems (MIS).		
11.43 Analyze types of data and reports utilized by supervisors and managers.		
11.44 Analyze data, draw conclusions, and present recommendations.		

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
11.45 Identify federal, state, and local government regulations with which management should be familiar.		
12.0 Demonstrate and apply an understanding of entrepreneurship principles. The student will be able to:		
12.13 Formulate a business plan to include a marketable product or service, a marketing management plan, a personnel management plan, a financial management plan, and an executive summary.		



## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Special Notes**

The occupational standards and benchmarks outlined in this secondary program correlate to the standards and benchmarks of the postsecondary program with the same Classification of Instructional Programs (CIP) number.

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

The purpose of this program is to provide students with “student-centered” (as opposed to “teacher-centered”) selected occupational skills through employment related instruction and paid, on-the-job training supervised by an employer and a teacher/coordinator. This method of delivery enables students to develop a variety of workplace competencies and transferable skills as well as develop students who will be motivated, self-disciplined individuals; caring, responsible, life-long learners; flexible and committed to technical competence; and skillful at social interactions, leadership, and problem-solving.

Employment related instruction is in-school instruction which develops competencies in health, safety, and environmental issues; professional, legal, and ethical issues; finance; leadership; communication; labor and human resources; economics; entrepreneurship; career planning; technology; management; and technical and production skills.

Supervised on-the-job training provides opportunities for planned instructional activities and student evaluations in a specified job setting. A student may not enroll in DCT-OJT (8300410) without previous completion of or concurrent enrollment in either DCT Principles or DCT Applications. DCT Principles does not require enrollment in a concurrent OJT course. The student must be paid for work performed.

### **Career and Technical Student Organization (CTSO)**

The following list identifies the appropriate career and technical student organizations for providing leadership training and reinforcing specific career and technical skills: Business Professionals of America (BPA); DECA; Family, Career and Community Leaders of America (FCCLA); FFA; Florida Public Service Association (FPSA); Florida Technology Student Association (FL-TSA); Future Business Leaders of America – Phi Beta Lambda (FBLA-PBL); HOSA – Future Health Professionals (HOSA); SkillsUSA. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

## **Cooperative Training – OJT**

On-the-job training is appropriate but not required for this program. Whenever offered, the rules, guidelines, and requirements specified in the OJT framework apply.

## **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Some secondary students with disabilities (ESE) may need additional time (i.e., longer than the regular school year), to master the student performance standards associated with a regular course or a modified course. If needed, a student may enroll in the same career and technical course more than once. Documentation should be included in the IEP that clearly indicates that it is anticipated that the student may need an additional year to complete a Career and Technical Education (CTE) course. The student should work on different competencies and new applications of competencies each year toward completion of the CTE course. After achieving the competencies identified for the year, the student earns credit for the course. It is important to ensure that credits earned by students are reported accurately. The district's information system must be designed to accept multiple credits for the same course number for eligible students with disabilities.

Florida Department of Education  
Curriculum Framework

**Program Title:** Career and Technical Related Basic Skills  
**Program Type:** Career Preparatory  
**Career Cluster:** Diversified Education

**PSAV**

Program Number	D886700
CIP Number	1098867000
Grade Level	30, 31
Standard Length	Multiple Hours
Teacher Certification	Refer to the <b><u>Program Structure</u></b> section.
CTSO	BPA, DECA, FBLA-PBL, FCCLA, FFA, FL-TSA, FPSA, HOSA, SkillsUSA
SOC Codes (all applicable)	N/A
Basic Skills Level	N/A

**Purpose**

This program offers a sequence of courses that provides coherent and rigorous content aligned with challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and careers in Diversified Education; provides technical skill proficiency, and includes competency-based applied learning that contributes to the academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, general employability skills, technical skills, and occupation-specific skills, and knowledge of all aspects of Diversified Education.

To provide students enrolled in career and technical job preparatory programs with the needed supportive instruction in math, science, and communications in an applied setting, in order to complement the instruction provided by the career and technical job preparatory instruction. This course provides pertinent supportive instruction and is not remedial in nature.

The content includes, but is not limited to, the math, science, and communications that are an integral part of the specific job preparatory career and technical programs.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

## Program Structure

This program is comprised of courses which have been assigned course numbers in the SCNS (Statewide Course Numbering System) in accordance with Section 1007.24 (1), F.S. Career and Technical credit shall be awarded to the student on a transcript in accordance with Section 1001.44(3)(b), F.S.

To teach the course listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the postsecondary program structure:

OCP	Course Number	Course Title	Teacher Certification	Length	SOC Code
N/A	D886700	Career and Technical Related Basic Skills	ANY VOCATIONAL FIELD OR COVERAGE ENGLISH 1 @4 MATH 1 @4 MG ENG C MG MATH C PHYSICS 1 @4 SCIENCE @4	Multiple Hours	N/A

## **Common Career Technical Core – Career Ready Practices**

Career Ready Practices describe the career-ready skills that educators should seek to develop in their students. These practices are not exclusive to a Career Pathway, program of study, discipline or level of education. Career Ready Practices should be taught and reinforced in all career exploration and preparation programs with increasingly higher levels of complexity and expectation as a student advances through a program of study.

1. Act as a responsible and contributing citizen and employee.
2. Apply appropriate academic and technical skills.
3. Attend to personal health and financial well-being.
4. Communicate clearly, effectively and with reason.
5. Consider the environmental, social and economic impacts of decisions.
6. Demonstrate creativity and innovation.
7. Employ valid and reliable research strategies.
8. Utilize critical thinking to make sense of problems and persevere in solving them.
9. Model integrity, ethical leadership and effective management.
10. Plan education and career path aligned to personal goals.
11. Use technology to enhance productivity.
12. Work productively in teams while using cultural/global competence.

## **Standards**

The intended Standards/outcomes of this course will be selected from the job preparatory career and technical program based on the needs of the student.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

The following list identifies the appropriate career and technical student organizations for providing leadership training and reinforcing specific career and technical skills: Business Professionals of America (BPA); DECA; Family, Career and Community Leaders of America (FCCLA); FFA; Florida Public Service Association (FPSA); Florida Technology Student Association (FL-TSA); Future Business Leaders of America – Phi Beta Lambda (FBLA-PBL); HOSA – Future Health Professionals (HOSA); SkillsUSA. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Cooperative Training – OJT**

On-the-job training is appropriate but not required for this program. Whenever offered, the rules, guidelines, and requirements specified in the OJT framework apply.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities to meet individual needs and ensure equal access. Postsecondary students with disabilities must self-identify, present documentation, request accommodations if needed, and develop a plan with their counselor and/or instructors. Accommodations received in postsecondary education may differ from those received in secondary education. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Program Title:** Vocational Employability Skills for Youth and Career Planning  
**Program Type:** Non Career Preparatory  
**Career Cluster:** Instructional Support Services

Secondary – Non Career Preparatory	
Program Number	9001820
CIP Number	11990007CE
Grade Level	6-12
Standard Length	.5/multiple credits
Teacher Certification	Refer to the Program Structure section.
CTSO	NA

**Purpose**

This program offers a course that provides coherent and rigorous content aligned with challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and careers; provides technical skill proficiency, and includes competency-based applied learning that contributes to the academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, general employability skills, technical skills, and occupation-specific skills.

The purpose of this program is to provide career and technical education competencies for youth being served by Department of Juvenile Justice programs. Basic practical and job preparatory instruction is provided in the competencies necessary for a better understanding of the world of work and for entry-level employment. The specific program content includes measurable components from any of the career and technical program areas with heavy emphasis on work ethics and employability skills.

The content includes but is not limited to employability and technical skills.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Program Structure**

This program is intended to provide short-term occupational education for individuals being served by Department of Juvenile Justice programs. The objective is to provide a foundation of survival skills for a transition into entry-level employment and/or additional on-the-job training.



The following table illustrates the secondary program structure:

Course Number	Course Title	Teacher Certification	Length	Level	Graduation Requirement
9001820	Vocational Employability Skills for Youth and Career Planning	ANY CTE FIELD OR COVERAGE ANY FIELD WHEN CERT REFLECTS BACHELOR OR HIGHER	.5 (Credit is not awarded at middle school level)	NA	

**Common Career Technical Core – Career Ready Practices**

Career Ready Practices describe the career-ready skills that educators should seek to develop in their students. These practices are not exclusive to a Career Pathway, program of study, discipline or level of education. Career Ready Practices should be taught and reinforced in all career exploration and preparation programs with increasingly higher levels of complexity and expectation as a student advances through a program of study.

1. Act as a responsible and contributing citizen and employee.
2. Apply appropriate academic and technical skills.
3. Attend to personal health and financial well-being.
4. Communicate clearly, effectively and with reason.
5. Consider the environmental, social and economic impacts of decisions.
6. Demonstrate creativity and innovation.
7. Employ valid and reliable research strategies.
8. Utilize critical thinking to make sense of problems and persevere in solving them.
9. Model integrity, ethical leadership and effective management.
10. Plan education and career path aligned to personal goals.
11. Use technology to enhance productivity.
12. Work productively in teams while using cultural/global competence.

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate realistic employment goals.
- 02.0 Describe human relations skills necessary for success in the workforce.
- 03.0 Identify types of communication skills necessary for successful employment.
- 04.0 Demonstrate leadership and teamwork skills needed to accomplish team goals and objectives.
- 05.0 Use oral and written communication skills in creating, expressing and interpreting information and ideas.
- 06.0 Describe the duties and responsibilities of a successful employee.
- 07.0 Demonstrate the competencies of employability and career development.
- 08.0 Use information technology tools.
- 09.0 Demonstrate the importance of health, safety, and environmental management systems in organizational performance and regulatory compliance.
- 10.0 Describe the roles within teams, work units, departments, organizations, inter-organizational systems and the larger environment.
- 11.0 Discuss the role of the entrepreneur.
- 12.0 Discuss entrepreneurship as a career choice.
- 13.0 Identify the basic economic principles of entrepreneurship.
- 14.0 Describe the importance of professional ethics and legal responsibilities.
- 15.0 Solve problems using critical thinking skills, creativity and innovation.
- 16.0 Demonstrate personal money-management concepts, procedures and strategies.
- 17.0 Use appropriate equipment and supplies safely and correctly.
- 18.0 Demonstrate competencies identified for a specific program component.

Listed below are the eight career and education planning course standards.

- 19.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.
- 20.0 Develop skills to locate, evaluate, and interpret career information.
- 21.0 Identify and demonstrate processes for making short and long term goals.
- 22.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
- 23.0 Understand the relationship between educational achievement and career choices/postsecondary options.
- 24.0 Identify a career cluster and related pathways through an interest assessment that match career and education goals.
- 25.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
- 26.0 Demonstrate knowledge of technology and its application in career fields/clusters.

## **OPTIONAL**

- 27.0 Demonstrate acquired skills through on-the-job training.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Vocational Employability Skills for Youth and Career Planning  
**Course Number:** 9001820  
**Course Credit:** .5

**Course Description:**

This course is designed to develop competencies in employability skills and to provide short-term occupational education for youth being served by Department of Juvenile Justice programs, usually for a duration of four (4) to twelve (12) months. The objective is to provide a foundation of survival skills for a transition into entry-level employment and/or additional on-the-job training.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate realistic employment goals. The student will be able to:
01.01	Express personal strengths and weaknesses, including social adjustments and cognitive abilities.
01.02	Match interests and abilities with potential careers.
02.0	Describe human relations skills necessary for success in the workforce. The student will be able to:
02.01	Define punctuality, initiative, courtesy, loyalty, honesty, respect, responsibility, fairness, and trustworthiness.
02.02	Identify and discuss the role of an employee as a team member in the workplace.
02.03	Describe the use of teams in the workplace to increase productivity and product quality.
02.04	Discuss the importance of human relations to success in the workplace.
02.05	Define empathy, compassion, caring, enthusiasm, positive attitude, and self-motivation.
02.06	Explain the importance of working effectively with diverse populations.
02.07	Explain importance of self-management when minimum direction and supervision are given.
02.08	Describe ethical situations in the world of work
02.09	Describe importance and benefits of time management.
02.10	Identify and demonstrate steps necessary for solving problems and making decisions.

## CTE Standards and Benchmarks

02.11 Analyze future consequences of current decisions.

02.12 Discuss the value of emotional self-control in the workplace

02.13 Explain “conflict resolution” and “dispute resolution” techniques and apply to a simulated work related problem.

02.14 Identify and practice stress management and relaxation techniques.

02.15 Discuss importance of practicing positive customer service skills.

03.0 Identify types of communication skills necessary for successful employment. The student will be able to:

03.01 Describe the importance of the proper use of grammar, vocabulary, and diction.

03.02 Identify the appropriate way to address people.

03.03 Identify appropriate conversation for work related settings.

03.04 Describe listening, speaking, and nonverbal skills necessary to determine customer needs.

03.05 List professional vocabulary appropriate for the work environment

03.06 Demonstrate ability to communicate in a multicultural setting

03.07 Identify and define commonly used customer service terms such as complaints, internal and external customers.

03.08 Demonstrate the ability to listen to, follow, and provide directions

03.09 Demonstrate the placing/receiving of telephone calls in a businesslike manner.

03.10 Demonstrate ability to locate, understand, and interpret information found in trade manuals, schedules, charts, diagrams, tables of contents, indexes, labels, and Internet resources.

04.0 Demonstrate leadership and teamwork skills needed to accomplish team goals and objective. The students will be able to:

04.01 Employ leadership skills to accomplish organizational goals and objectives.

04.02 Establish and maintain effective working relationships with others in order to accomplish objectives and tasks.

04.03 Conduct and participate in meetings to accomplish work tasks.

04.04 Employ mentoring skills to inspire and teach others.

05.0 Use oral and written communication skills in creating, expressing and interpreting information and ideas. The students will be able to:

05.01 Select and employ appropriate communication concepts and strategies to enhance oral and written communication in the workplace.

## CTE Standards and Benchmarks

05.02 Locate, organize and reference written information from various sources.

05.03 Design, develop and deliver formal and informal presentations using appropriate media to engage and inform diverse audiences.

05.04 Interpret verbal and nonverbal cues/behaviors that enhance communication.

05.05 Apply active listening skills to obtain and clarify information.

05.06 Develop and interpret tables and charts to support written and oral communications.

05.07 Exhibit public relations skills that aid in achieving customer satisfaction.

06.0 Describe the duties and responsibilities of a successful employee. The student will be able to:

06.01 Explain how to handle customer inquiries/complaints.

06.02 Explain how to handle difficult internal and external customers

06.03 Explain how to interpret policies to internal and external customers.

06.04 Classify customer services according to nature and characteristics of the activity.

06.05 Review methods to resolve customer problems through clarifying and explaining policies and procedures.

06.06 Explain the importance of stress management and relaxation techniques as they relate to job performance.

06.07 Demonstrate an understanding of gender, age, disability, and cultural courtesy.

06.08 Describe workplace codes of professional/business conduct.

06.09 Explain the concepts of integrity, credibility, reliability, and perseverance.

06.10 List the responsibilities an employer has for his/her employees (ethical, social, legal).

07.0 Demonstrate the competencies of employability and career development –Explain the importance of employability skills and entrepreneurship skills. The student will be able to:

07.01 Identify and demonstrate positive work behaviors needed to be employable.

07.02 Develop personal career plan that includes goals, objectives, and strategies.

07.03 Examine licensing, certification, and industry credentialing requirements.

07.04 Maintain a career portfolio to document knowledge, skills, and experience.

07.05 Evaluate and compare employment opportunities that match career goals.

## CTE Standards and Benchmarks

07.06 Identify and exhibit traits for retaining employment.

07.07 Identify opportunities and research requirements for career advancement.

07.08 Research the benefits of ongoing professional development.

07.09 Examine and describe entrepreneurship opportunities as a career planning option.

08.0 Use information technology tools. The students will be able to:

08.01 Use personal information management (PIM) applications to increase workplace efficiency.

08.02 Employ technological tools to expedite workflow including word processing, databases, reports, spreadsheets, multimedia presentations, electronic calendar, contacts, email, and internet applications.

08.03 Employ computer operations applications to access, create, manage, integrate, and store information.

08.04 Employ collaborative/groupware applications to facilitate group work.

09.0 Demonstrate the importance of health, safety, and environmental management systems in organizations and their importance to organizational performance and regulatory compliance. The student will be able to:

09.01 Describe personal and jobsite safety rules and regulations that maintain safe and healthy work environments.

09.02 Explain emergency procedures to follow in response to workplace accidents.

09.03 Create a disaster and/or emergency response plan.

10.0 Describe the roles within teams, work units, departments, organizations, inter-organizational systems, and the larger environment. The student will be able to:

10.01 Describe the nature and types of business organizations.

10.02 Explain the effect of key organizational systems on performance and quality.

10.03 List and describe quality control systems and/or practices common to the workplace.

10.04 Explain the impact of the global economy on business organizations.

11.0 Discuss the role of the entrepreneur. The student will be able to:

11.01 Define *entrepreneurship*.

11.02 Research innovations and the names and biographies of famous entrepreneurs, past and present.

11.03 Discuss the evolution of entrepreneurship.

## CTE Standards and Benchmarks

11.04 Describe the differences between a product-based business and a service-based business.

11.05 Identify the contributions of entrepreneurs to the economic growth of the United States.

11.06 Discuss future prospects for entrepreneurship and its anticipated impact on the economy.

11.07 Discuss the role of the entrepreneur in his/her local community (e.g., mentoring, philanthropy).

12.0 Discuss entrepreneurship as a career choice. The student will be able to:

12.01 Describe reasons for becoming an entrepreneur.

12.02 Identify characteristics common to successful entrepreneurs; research famous entrepreneurs.

12.03 Identify the education, aptitudes, and skills recommended for entrepreneurs.

12.04 Discuss the advantages and disadvantages of self-employment.

12.05 Discuss entrepreneurship as a personal goal.

12.06 Assess personal potential for entrepreneurship.

12.07 Identify career paths in supervisory, management, and small business environments.

13.0 Identify the basic economic principles of entrepreneurship. The student will be able to:

13.01 Identify the role of small businesses in the global economy.

13.02 Define and discuss *profit motive* and its impact on business.

13.03 Identify the different types of competition and explain the impact of competition on businesses (e.g., direct, indirect, price, non-price, competitive position).

13.04 Describe the differences between industrial and consumer goods.

13.05 Define *land, labor, capital, and entrepreneurship* as factors of production.

13.06 Discuss form, place, time, possession, and information utility.

13.07 Explain the meaning and causes of scarcity.

13.08 Identify the components of the Law of Supply and Demand in a free enterprise system.

13.09 Identify the stages of the product life cycle and the characteristics of each stage.

13.10 Identify the roles and types of producers, distributors, and services in the current business economy.



## CTE Standards and Benchmarks

13.11	Discuss major fields of business activity (e.g., extractive, subcontracting, manufacturing, wholesaling, retailing, services, cottage industries, urban street sales).
13.12	Discuss the four parts of a business (production, finance, marketing, customer service).
13.13	Identify factors that contribute to the success of a small business.
13.14	Describe the process of starting a small business.
13.15	Explain the procedures for registering a sole proprietorship and obtaining a sales tax identification number.
13.16	Discuss reasons for small business failure; develop an exit strategy and plan.
13.17	Recognize opportunities for small businesses in the global marketplace.
14.0	Describe the importance of professional ethics and legal responsibilities. The student will be able to:
14.01	Evaluate and justify decisions based on ethical reasoning.
14.02	Evaluate alternative responses to workplace situations based on personal, professional, ethical, legal responsibilities, and employer policies.
14.03	Identify and explain personal and long-term consequences of unethical or illegal behaviors in the workplace.
14.04	Interpret and explain written organizational policies and procedures.
15.0	Solve problems using critical thinking skills, creativity and innovation. The student will be able to:
15.01	Employ critical thinking skills independently and in teams to solve problems and make decisions.
15.02	Employ critical thinking and interpersonal skills to resolve conflicts.
15.03	Identify and document workplace performance goals and monitor progress toward those goals.
15.04	Conduct technical research to gather information necessary for decision-making.
16.0	Demonstrate personal money-management concepts, procedures, and strategies. The student will be able to:
16.01	Identify and describe the services and legal responsibilities of financial institutions.
16.02	Describe the effect of money management on personal and career goals.
16.03	Develop a personal budget and financial goals.
16.04	Complete financial instruments for making deposits and withdrawals.
16.05	Maintain financial records.

## CTE Standards and Benchmarks

16.06 Read and reconcile financial statements

16.07 Research, compare and contrast investment opportunities.

17.0 Use appropriate equipment and supplies safely and correctly. The student will be able to:

17.01 These student performance standards are job specific and correspond to the job preparatory program in which the student is enrolled.

18.0 Demonstrate competencies identified for a specific program component. The student will be able to:

18.01 These student performance standards are job specific and correspond to the job preparatory program in which the student is enrolled.

### **OPTIONAL**

19.0 Demonstrate acquired skills through On-The-Job training. The student will be able to:

19.01 Display a positive attitude toward a job.

19.02 Demonstrate job performance skills.

19.03 Display expected level of productivity.

19.04 Use evaluations to improve own performance.

19.05 Identify, organize, plan and allocate resources.

19.06 Work cooperatively with others.

19.07 Acquire and use information including using computers.

19.08 Work effectively within the context of complex interrelationships.

19.09 Work with a variety of technologies.

19.10 Perform basic computer operations.

### **Listed below are the eight career and education planning course standards:**

The student will be able to:

20.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.

21.0 Develop skills to locate, evaluate, and interpret career information.

## CTE Standards and Benchmarks

22.0	Identify and demonstrate processes for making short and long term goals.
23.0	Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
24.0	Understand the relationship between educational achievement and career choices/postsecondary options.
25.0	Identify a career cluster and related pathways that match career and education goals.
26.0	Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
27.0	Demonstrate knowledge of technology and its application in career fields/clusters.

## Additional Information

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Academic Alignment**

Secondary Career and Technical Education courses are pending alignment to the B.E.S.T. (Benchmarks for Excellent Student Thinking) Standards for English Language Arts (ELA) and Mathematics that were adopted by the State Board of Education in February 2020. Academic alignment is an ongoing, collaborative effort of professional educators that provide clear expectations for progression year-to-year through course alignment. This initiative supports CTE programs by improving student performance through the integration of academic content within CTE courses.

### **Cooperative Training – OJT**

On-the-job training is appropriate but not required for this program. Whenever offered, the rules, guidelines, and requirements specified in the OJT framework apply.

### **Special Notes**

The career and education planning course required by Section 1003.4156, Florida Statutes, has been integrated into this course. This course must include career exploration using CHOICES or a comparable cost-effective program and educational planning using the online student advising system known as Florida Academic Counseling and Tracking for Students at the Internet website FACTS.org; and shall result in the completion of a personalized academic and career plan.

\*The information appearing after standard #7 is new to this course and allows districts to integrate the middle school Career Exploration and Decision Making course as required by Section 1003.4156, Florida Statutes.

Primary emphasis will be given to the diagnosis of the individual's interest and aptitude, followed by involvement in appropriate occupational competencies, consistent with the individual's education level. This program is designed to allow the institution's career and technical education department in cooperation with the Division of Career and adult Education to develop student performance standards for specific instructional components based upon identified occupational titles in any of the career clusters of Agriculture, Food and Natural Resources; Architecture and Construction; Arts, A/V Technology and Communication; Business, Management and Administration; Education and Training; Finance; Government and Public Administration; Health Science; Hospitality and Tourism; Human Services; Information Technology; Law, Public Safety and Security; Manufacturing; Marketing, Sales and Services; Science, Technology, Engineering and Mathematics (STEM); and Transportation, Distribution and Logistics. This curriculum framework and the adopted student performance standards will be the basis for program operation and program review. The specialized student performance standards will be based upon:

- 1) Serving the special needs of institution's clients with an average commitment time of four (4) to six (6) months.
- 2) Organized instruction provided by a qualified instructor.
- 3) Input from a program advisory committee composed of representatives of business and industry.
- 4) Documentation for evaluation and accountability purposes.

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career Planning**

**Effective July 1, 2019, per Section 1003.4156, Florida Statutes (F.S.), for students to meet middle grades promotion requirements, a Career and Education Planning course must be completed in either sixth, seventh, or eighth grade.** These courses should be taught integrating the eight career and education planning course standards. The MyCareerShines powered by Kuder® career planning system is available free of charge to all Florida middle and high schools to assist students in completing research-based career assessments, exploring career options and developing an online academic and career plan.

### **English Language Development ELD Standards Special Notes Section**

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate information, ideas and concepts for academic success in the content area of Language Arts. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. To access an ELL supporting document which delineates performance definitions and descriptors.

For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition at.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Some secondary students with disabilities (ESE) may need additional time (i.e., longer than the regular school year), to master the student performance standards associated with a regular Occupational Completion Point (OCP) or a Modified Occupational Completion Point (MOCP). If needed, a student may enroll in the same career and technical course more than once. Documentation should be included in the IEP that clearly indicates that it is anticipated that the student may need an additional year to complete an OCP/MOCP. The student should work on different competencies and new applications of competencies each year toward completion of the OCP/MOCP. After achieving the competencies identified for the year, the student earns credit for the course. It is important to ensure that credits earned by students are reported accurately. The district's information system must be designed to accept multiple credits for the same course number for eligible students with disabilities.

Florida Department of Education  
Curriculum Framework

**Program Title:** Vocational Employability Skills for Youth  
**Program Type:** Non Career Preparatory  
**Career Cluster:** Instructional Support Services

**Secondary – Non Career Preparatory**

Program Number	9001920
CIP Number	11990007SN
Grade Level	6-12
Standard Length	.5/multiple credits
Teacher Certification	Refer to the Program Structure section.
CTSO	NA

**Purpose**

This program offers a course that provides coherent and rigorous content aligned with challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and careers; provides technical skill proficiency, and includes competency-based applied learning that contributes to the academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, general employability skills, technical skills, and occupation-specific skills.

The purpose of this program is to provide career and technical education competencies for youth being served by Department of Juvenile Justice programs. Basic practical and job preparatory instruction is provided in the competencies necessary for a better understanding of the world of work and for entry-level employment. The specific program content includes measurable components from any of the career and technical program areas with heavy emphasis on work ethics and employability skills.

The content includes but is not limited to employability and technical skills.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Program Structure**

This program is intended to provide short-term occupational education for individuals being served by Department of Juvenile Justice programs. The objective is to provide a foundation of survival skills for a transition into entry-level employment and/or additional on-the-job training.

The following table illustrates the secondary program structure:

Course Number	Course Title	Teacher Certification	Length	Level	Graduation Requirement
9001920	Vocational Employability Skills for Youth	ANY CTE FIELD OR COVERAGE ANY FIELD WHEN CERT REFLECTS BACHELOR OR HIGHER	.5 (Credit is not awarded at middle school level)	NA	



## **Common Career Technical Core – Career Ready Practices**

Career Ready Practices describe the career-ready skills that educators should seek to develop in their students. These practices are not exclusive to a Career Pathway, program of study, discipline or level of education. Career Ready Practices should be taught and reinforced in all career exploration and preparation programs with increasingly higher levels of complexity and expectation as a student advances through a program of study.

1. Act as a responsible and contributing citizen and employee.
2. Apply appropriate academic and technical skills.
3. Attend to personal health and financial well-being.
4. Communicate clearly, effectively and with reason.
5. Consider the environmental, social and economic impacts of decisions.
6. Demonstrate creativity and innovation.
7. Employ valid and reliable research strategies.
8. Utilize critical thinking to make sense of problems and persevere in solving them.
9. Model integrity, ethical leadership and effective management.
10. Plan education and career path aligned to personal goals.
11. Use technology to enhance productivity.
12. Work productively in teams while using cultural/global competence.

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate realistic employment goals.
- 02.0 Describe human relations skills necessary for success in the workforce.
- 03.0 Identify types of communication skills necessary for successful employment.
- 04.0 Demonstrate leadership and teamwork skills needed to accomplish team goals and objectives.
- 05.0 Use oral and written communication skills in creating, expressing and interpreting information and ideas.
- 06.0 Describe the duties and responsibilities of a successful employee.
- 07.0 Demonstrate the competencies of employability and career development.
- 08.0 Use information technology tools.
- 09.0 Demonstrate the importance of health, safety, and environmental management systems in organizational performance and regulatory compliance.
- 10.0 Describe the roles within teams, work units, departments, organizations, inter-organizational systems and the larger environment.
- 11.0 Discuss the role of the entrepreneur.
- 12.0 Discuss entrepreneurship as a career choice.
- 13.0 Identify the basic economic principles of entrepreneurship.
- 14.0 Describe the importance of professional ethics and legal responsibilities.
- 15.0 Solve problems using critical thinking skills, creativity and innovation.
- 16.0 Demonstrate personal money-management concepts, procedures and strategies.
- 17.0 Use appropriate equipment and supplies safely and correctly.
- 18.0 Demonstrate competencies identified for a specific program component.

## **OPTIONAL**

- 19.0 Demonstrate acquired skills through on-the-job training.

Florida Department of Education  
Student Performance Standards

**Course Title:** Vocational Employability Skills for Youth  
**Course Number:** 9001920  
**Course Credit:** .5

**Course Description:**

This course is designed to develop competencies in employability skills and to provide short-term occupational education for youth being served by Department of Juvenile Justice programs, usually for a duration of four (4) to twelve (12) months. The objective is to provide a foundation of survival skills for a transition into entry-level employment and/or additional on-the-job training.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate realistic employment goals. The student will be able to:
01.01	Express personal strengths and weaknesses, including social adjustments and cognitive abilities.
01.02	Match interests and abilities with potential careers.
02.0	Describe human relations skills necessary for success in the workforce. The student will be able to:
02.01	Define punctuality, initiative, courtesy, loyalty, honesty, respect, responsibility, fairness, and trustworthiness.
02.02	Identify and discuss the role of an employee as a team member in the workplace.
02.03	Describe the use of teams in the workplace to increase productivity and product quality.
02.04	Discuss the importance of human relations to success in the workplace.
02.05	Define empathy, compassion, caring, enthusiasm, positive attitude, and self-motivation.
02.06	Explain the importance of working effectively with diverse populations.
02.07	Explain importance of self-management when minimum direction and supervision are given.
02.08	Describe ethical situations in the world of work
02.09	Describe importance and benefits of time management.

## CTE Standards and Benchmarks

02.10	Identify and demonstrate steps necessary for solving problems and making decisions.
02.11	Analyze future consequences of current decisions.
02.12	Discuss the value of emotional self-control in the workplace
02.13	Explain “conflict resolution” and “dispute resolution” techniques and apply to a simulated work related problem.
02.14	Identify and practice stress management and relaxation techniques.
02.15	Discuss importance of practicing positive customer service skills.
03.0	Identify types of communication skills necessary for successful employment. The student will be able to:
03.01	Describe the importance of the proper use of grammar, vocabulary, and diction.
03.02	Identify the appropriate way to address people.
03.03	Identify appropriate conversation for work related settings.
03.04	Describe listening, speaking, and nonverbal skills necessary to determine customer needs.
03.05	List professional vocabulary appropriate for the work environment
03.06	Demonstrate ability to communicate in a multicultural setting
03.07	Identify and define commonly used customer service terms such as complaints, internal and external customers.
03.08	Demonstrate the ability to listen to, follow, and provide directions
03.09	Demonstrate the placing/receiving of telephone calls in a businesslike manner.
03.10	Demonstrate ability to locate, understand, and interpret information found in trade manuals, schedules, charts, diagrams, tables of contents, indexes, labels, and Internet resources.
04.0	Demonstrate leadership and teamwork skills needed to accomplish team goals and objectives. The student will be able to:
04.01	Employ leadership skills to accomplish organizational goals and objectives.
04.02	Establish and maintain effective working relationships with others in order to accomplish objectives and tasks.
04.03	Conduct and participate in meetings to accomplish work tasks.
04.04	Employ mentoring skills to inspire and teach others.
05.0	Use oral and written communication skills in creating, expressing and interpreting information and ideas. The student will be able to:

## CTE Standards and Benchmarks

05.01	Select and employ appropriate communication concepts and strategies to enhance oral and written communication in the workplace.
05.02	Locate, organize and reference written information from various sources.
05.03	Design, develop and deliver formal and informal presentations using appropriate media to engage and inform diverse audiences.
05.04	Interpret verbal and nonverbal cues/behaviors that enhance communication.
05.05	Apply active listening skills to obtain and clarify information.
05.06	Develop and interpret tables and charts to support written and oral communications.
05.07	Exhibit public relations skills that aid in achieving customer satisfaction.
06.0	Describe the duties and responsibilities of a successful employee. The student will be able to:
06.01	Explain how to handle customer inquiries/complaints.
06.02	Explain how to handle difficult internal and external customers
06.03	Explain how to interpret policies to internal and external customers.
06.04	Classify customer services according to nature and characteristics of the activity.
06.05	Review methods to resolve customer problems through clarifying and explaining policies and procedures.
06.06	Explain the importance of stress management and relaxation techniques as they relate to job performance.
06.07	Demonstrate an understanding of gender, age, disability, and cultural courtesy.
06.08	Describe workplace codes of professional/business conduct.
06.09	Explain the concepts of integrity, credibility, reliability, and perseverance.
06.10	List the responsibilities an employer has for his/her employees (ethical, social, legal).
07.0	Demonstrate the competencies of employability and career development –Explain the importance of employability skills and entrepreneurship skills. The student will be able to:
07.01	Identify and demonstrate positive work behaviors needed to be employable.
07.02	Develop personal career plan that includes goals, objectives, and strategies.
07.03	Examine licensing, certification, and industry credentialing requirements.
07.04	Maintain a career portfolio to document knowledge, skills, and experience.

## CTE Standards and Benchmarks

07.05	Evaluate and compare employment opportunities that match career goals.
07.06	Identify and exhibit traits for retaining employment.
07.07	Identify opportunities and research requirements for career advancement.
07.08	Research the benefits of ongoing professional development.
07.09	Examine and describe entrepreneurship opportunities as a career planning option.
08.0	Use information technology tools. The student will be able to:
08.01	Use personal information management (PIM) applications to increase workplace efficiency.
08.02	Employ technological tools to expedite workflow including word processing, databases, reports, spreadsheets, multimedia presentations, electronic calendar, contacts, email, and internet applications.
08.03	Employ computer operations applications to access, create, manage, integrate, and store information.
08.04	Employ collaborative/groupware applications to facilitate group work.
09.0	Demonstrate the importance of health, safety, and environmental management systems in organizations and their importance to organizational performance and regulatory compliance. The student will be able to:
09.01	Describe personal and jobsite safety rules and regulations that maintain safe and healthy work environments.
09.02	Explain emergency procedures to follow in response to workplace accidents.
09.03	Create a disaster and/or emergency response plan.
10.0	Describe the roles within teams, work units, departments, organizations, inter-organizational systems, and the larger environment. The student will be able to:
10.01	Describe the nature and types of business organizations.
10.02	Explain the effect of key organizational systems on performance and quality.
10.03	List and describe quality control systems and/or practices common to the workplace.
10.04	Explain the impact of the global economy on business organizations.
11.0	Discuss the role of the entrepreneur. The student will be able to:
11.01	Define <i>entrepreneurship</i> .
11.02	Research innovations and the names and biographies of famous entrepreneurs, past and present.

## CTE Standards and Benchmarks

11.03	Discuss the evolution of entrepreneurship.
11.04	Describe the differences between a product-based business and a service-based business.
11.05	Identify the contributions of entrepreneurs to the economic growth of the United States.
11.06	Discuss future prospects for entrepreneurship and its anticipated impact on the economy.
11.07	Discuss the role of the entrepreneur in his/her local community (e.g., mentoring, philanthropy).
12.0	Discuss entrepreneurship as a career choice. The student will be able to:
12.01	Describe reasons for becoming an entrepreneur.
12.02	Identify characteristics common to successful entrepreneurs; research famous entrepreneurs.
12.03	Identify the education, aptitudes, and skills recommended for entrepreneurs.
12.04	Discuss the advantages and disadvantages of self-employment.
12.05	Discuss entrepreneurship as a personal goal.
12.06	Assess personal potential for entrepreneurship.
12.07	Identify career paths in supervisory, management, and small business environments.
13.0	Identify the basic economic principles of entrepreneurship. The student will be able to:
13.01	Identify the role of small businesses in the global economy.
13.02	Define and discuss <i>profit motive</i> and its impact on business.
13.03	Identify the different types of competition and explain the impact of competition on businesses (e.g., direct, indirect, price, non-price, competitive position).
13.04	Describe the differences between industrial and consumer goods.
13.05	Define <i>land, labor, capital, and entrepreneurship</i> as factors of production.
13.06	Discuss form, place, time, possession, and information utility.
13.07	Explain the meaning and causes of scarcity.
13.08	Identify the components of the Law of Supply and Demand in a free enterprise system.
13.09	Identify the stages of the product life cycle and the characteristics of each stage.

## CTE Standards and Benchmarks

13.10	Identify the roles and types of producers, distributors, and services in the current business economy.
13.11	Discuss major fields of business activity (e.g., extractive, subcontracting, manufacturing, wholesaling, retailing, services, cottage industries, urban street sales).
13.12	Discuss the four parts of a business (production, finance, marketing, customer service).
13.13	Identify factors that contribute to the success of a small business.
13.14	Describe the process of starting a small business.
13.15	Explain the procedures for registering a sole proprietorship and obtaining a sales tax identification number.
13.16	Discuss reasons for small business failure; develop an exit strategy and plan.
13.17	Recognize opportunities for small businesses in the global marketplace.
14.0	Describe the importance of professional ethics and legal responsibilities. The student will be able to:
14.01	Evaluate and justify decisions based on ethical reasoning.
14.02	Evaluate alternative responses to workplace situations based on personal, professional, ethical, legal responsibilities, and employer policies.
14.03	Identify and explain personal and long-term consequences of unethical or illegal behaviors in the workplace.
14.04	Interpret and explain written organizational policies and procedures.
15.0	Solve problems using critical thinking skills, creativity and innovation. The student will be able to:
15.01	Employ critical thinking skills independently and in teams to solve problems and make decisions.
15.02	Employ critical thinking and interpersonal skills to resolve conflicts.
15.03	Identify and document workplace performance goals and monitor progress toward those goals.
15.04	Conduct technical research to gather information necessary for decision-making.
16.0	Demonstrate personal money-management concepts, procedures, and strategies. The student will be able to:
16.01	Identify and describe the services and legal responsibilities of financial institutions.
16.02	Describe the effect of money management on personal and career goals.
16.03	Develop a personal budget and financial goals.
16.04	Complete financial instruments for making deposits and withdrawals.



## CTE Standards and Benchmarks

16.05 Maintain financial records.

16.06 Read and reconcile financial statements

16.07 Research, compare and contrast investment opportunities.

17.0 Use appropriate equipment and supplies safely and correctly. The student will be able to:

17.01 These student performance standards are job specific and correspond to the job preparatory program in which the student is enrolled.

18.0 Demonstrate competencies identified for a specific program component. The student will be able to:

18.01 These student performance standards are job specific and correspond to the job preparatory program in which the student is enrolled.

### **OPTIONAL**

19.0 Demonstrate acquired skills through On-The-Job training. The student will be able to:

19.01 Display a positive attitude toward a job.

19.02 Demonstrate job performance skills.

19.03 Display expected level of productivity.

19.04 Use evaluations to improve own performance.

19.05 Identify, organize, plan and allocate resources.

19.06 Work cooperatively with others.

19.07 Acquire and use information including using computers.

19.08 Work effectively within the context of complex interrelationships.

19.09 Work with a variety of technologies.

19.10 Perform basic computer operations.

## Additional Information

## **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

## **Academic Alignment**

Secondary Career and Technical Education courses are pending alignment to the B.E.S.T. (Benchmarks for Excellent Student Thinking) Standards for English Language Arts (ELA) and Mathematics that were adopted by the State Board of Education in February 2020. Academic alignment is an ongoing, collaborative effort of professional educators that provide clear expectations for progression year-to-year through course alignment. This initiative supports CTE programs by improving student performance through the integration of academic content within CTE courses.

## **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills.

For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

## **Cooperative Training – OJT**

On-the-job training is appropriate but not required for this program. Whenever offered, the rules, guidelines, and requirements specified in the OJT framework apply.

## **Special Notes**

Primary emphasis will be given to the diagnosis of the individual's interest and aptitude, followed by involvement in appropriate occupational competencies, consistent with the individual's education level. This program is designed to allow the institution's career and technical education department in cooperation with the Division of Career and adult Education to develop student performance standards for specific instructional components based upon identified occupational titles in any of the career clusters of Agriculture, Food and Natural Resources; Architecture and Construction; Arts, A/V Technology and Communication; Business, Management and Administration; Education and Training; Finance; Government and Public Administration; Health Science; Hospitality and Tourism; Human Services; Information Technology; Law, Public Safety and Security; Manufacturing; Marketing, Sales and Services; Science, Technology, Engineering and Mathematics (STEM); and Transportation, Distribution and

Logistics. This curriculum framework and the adopted student performance standards will be the basis for program operation and program review. The specialized student performance standards will be based upon:

- 1) Serving the special needs of institution's clients with an average commitment time of four (4) to six (6) months.
- 2) Organized instruction provided by a qualified instructor.
- 3) Input from a program advisory committee composed of representatives of business and industry.
- 4) Documentation for evaluation and accountability purposes.

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Some secondary students with disabilities (ESE) may need additional time (i.e., longer than the regular school year), to master the student performance standards associated with a regular Occupational Completion Point (OCP) or a Modified Occupational Completion Point (MOCP). If needed, a student may enroll in the same career and technical course more than once. Documentation should be included in the IEP that clearly indicates that it is anticipated that the student may need an additional year to complete an OCP/MOCP. The student should work on different competencies and new applications of competencies each year toward completion of the OCP/MOCP. After achieving the competencies identified for the year, the student earns credit for the course. It is important to ensure that credits earned by students are reported accurately. The district's information system must be designed to accept multiple credits for the same course number for eligible students with disabilities.

Florida Department of Education  
Curriculum Framework

**Program Title:** Career Education Services for Students with Disabilities  
**Program Type:** Career Preparatory  
**Career Cluster:** Instructional Support Services

**Secondary – Career Preparatory**

Program Number	9603100
CIP Number	S9900005SN
Grade Level	6-12
Standard Length	8 CR
Teacher Certification	Refer to the <b><u>Program Structure</u></b> section.
CTSO	CTSO Applicable to related CTE program
SOC Codes (all applicable)	SOC applicable to related CTE program

**Purpose**

This program offers a sequence of courses that provide coherent and rigorous content aligned with challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and careers; provides technical skill proficiency, and includes competency-based applied learning that contributes to the academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, general employability skills, technical skills, and occupation-specific skills. Once the OCP is earned for a completed course, the student must move to the next course with a new set of objectives as listed in the IEP or 504 plan.

This program provides specialized career education for students with disabilities. Competencies in job preparatory instruction are provided that will prepare students for competitive employment in an occupation for which they have been trained. The program is individualized for each student through the Individual Educational Plan (IEP) process and includes selected competencies from one or more of the career areas. This allows the student with disability the opportunity to prepare for an industry certification as stated in the IEP. This program is only to be used with students with a disability who have an IEP or 504 plan.

The content includes but is not limited to determining employment goals, demonstrating employability skills, demonstrating self-advocacy skills, the use of technology, tools, equipment and supplies. Each course must incorporate competencies from one or more career and technical education program.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

## Program Structure

This program is a planned sequence of instruction consisting of multiple courses that are completed as specified on an individual plan for each student. The courses are designed to reflect the wide range of abilities within the population of students with disabilities. The courses integrate selected program standards from one or more Career and Technical Education Programs. The particular outcomes and student performance standards which the secondary student must master to earn credit must be specified on an individual basis. When the student masters the individually determined student performance objectives in the IEP, the student is reported as a completer of the OCP in which they are enrolled. The student IEP would then be updated to include competencies for the next OCP.

A student may earn multiple credits. Multiple credits may be earned sequentially or simultaneously, to a maximum of 8 credits. The particular outcomes and student performance standards which the secondary student must master to earn credit must be specified on an individual basis. A student earns a credit when the student performance standards stated on the IEP are mastered. When the student completes one OCP and enrolls in the next course, a new IEP must be written with new student performance standards to be mastered. The job or jobs for which the student is being trained should be reflected in the student's desired post-school outcome statement on the Transition Individual Educational Plan (Transition IEP). Documentation of mastery of the student performance standards must be maintained

The following table illustrates the secondary program structure:

OCP	Course Number	Course Title	Teacher Certification	Length	SOC Code	Level	Graduation Requirement
A	9603110	Career Education Services for Students with Disabilities 1	ANY CTE FIELD OR COVERAGE	1 CR	SOC applicable to related CTE program	NA	
B	9603120	Career Education Services for Students with Disabilities 2		1 CR	SOC applicable to related CTE program	NA	
C	9603130	Career Education Services for Students with Disabilities 3		1 CR	SOC applicable to related CTE program	NA	
D	9603140	Career Education Services for Students with Disabilities 4		1 CR	SOC applicable to related CTE program	NA	
E	9603150	Career Education Services for Students with Disabilities 5		1 CR	SOC applicable to related CTE program	NA	
F	9603160	Career Education Services for Students		1 CR	SOC	NA	

		with Disabilities 6			applicable to related CTE program		
G	9603170	Career Education Services for Students with Disabilities 7		1 CR	SOC applicable to related CTE program	NA	
H	9603180	Career Education Services for Students with Disabilities 8		1 CR	SOC applicable to related CTE program	NA	

**Common Career Technical Core – Career Ready Practices**

Career Ready Practices describe the career-ready skills that educators should seek to develop in their students. These practices are not exclusive to a Career Pathway, program of study, discipline or level of education. Career Ready Practices should be taught and reinforced in all career exploration and preparation programs with increasingly higher levels of complexity and expectation as a student advances through a program of study.

1. Act as a responsible and contributing citizen and employee.
2. Apply appropriate academic and technical skills.
3. Attend to personal health and financial well-being.
4. Communicate clearly, effectively and with reason.
5. Consider the environmental, social and economic impacts of decisions.
6. Demonstrate creativity and innovation.
7. Employ valid and reliable research strategies.
8. Utilize critical thinking to make sense of problems and persevere in solving them.
9. Model integrity, ethical leadership and effective management.
10. Plan education and career path aligned to personal goals.
11. Use technology to enhance productivity.
12. Work productively in teams while using cultural/global competence.

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate realistic employment goals.
- 02.0 Describe human relations skills necessary for success in the workforce.
- 03.0 Develop a familiarity with the information technology.
- 04.0 Develop individualized education and career plans.
- 05.0 Develop a familiarity with the information technology.
- 06.0 Identify the educational requirements, tasks performed, and employment opportunities for individuals who wish to enter occupations related to the field of study in which the student is enrolled.
- 07.0 Practice quality performance.
- 08.0 Demonstrate and incorporate workplace safety procedures.
- 09.0 Identify and demonstrate processes for making short and long term goals.
- 10.0 Explain the impact of technology on occupations related to the field of study in which the student is enrolled.
- 11.0 Demonstrate proper and safe procedures while working with tools, equipment, systems and materials.
- 12.0 Identify terminology related to the chosen occupation.
- 13.0 Demonstrate job seeking and employability skills.
- 14.0 Demonstrate an understanding of workplace safety.
- 15.0 Demonstrate an understanding of workplace organization.
- 16.0 Describe leadership and organizational skills.
- 17.0 Describe the roles within teams, work units, departments, organizations and the larger environment.
- 18.0 Discuss individual interests, aptitudes, and opportunities as they relate to the chosen career.
- 19.0 Identify career and employment opportunities.
- 20.0 Demonstrate personal productivity.
- 21.0 Describe the duties and responsibilities of a successful employee.
- 22.0 Use oral and written communication skills in creating, expressing and interpreting information and ideas.
- 23.0 Identify types of mathematical skills necessary for successful employment.
- 24.0 Demonstrate industry related mathematical skills based on CTE competencies.
- 25.0 Demonstrate industry related science knowledge and skills based on CTE competencies.
- 26.0 Demonstrate industry related language arts skills based on CTE competencies.
- 27.0 Identify types of communication skills necessary for successful employment.
- 28.0 Solve problems using critical thinking skills, creativity and innovation.
- 29.0 Use information technology tools.
- 30.0 Identify a career cluster and related pathways that match career and education goals.
- 31.0 Demonstrate leadership and teamwork skills needed to accomplish team goals and objectives.
- 32.0 Apply leadership and communication skills.
- 33.0 Exhibit positive human relations and leadership skills.
- 34.0 Demonstrate leadership and teamwork skills needed to accomplish team goals and objectives.
- 35.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
- 36.0 Develop an awareness of management functions and organizational structures as they relate to today's workplace and employer/employee



roles.

- 37.0 Demonstrate the competencies of employability and career development.
- 38.0 Demonstrate the importance of health, safety, and environmental management systems in organizational performance and regulatory compliance.
- 39.0 Describe the importance of professional ethics and legal responsibilities.
- 40.0 Use appropriate equipment and supplies safely and correctly.
- 41.0 Demonstrate competencies identified for a specific program component.
- 42.0 Demonstrate knowledge of job accommodations and apply skills related to self-determination and self-advocacy.
- 43.0 Demonstrate personal money-management concepts, procedures and strategies.
- 44.0 Research and discuss career and employment opportunities.
- 45.0 Describe the rights, responsibilities and benefits of employment.
- 46.0 Understand the benefits of disclosure.
- 47.0 Understand how to request job accommodations.
- 48.0 Demonstrate a knowledge of self-advocacy.
- 49.0 Develop skills to locate, evaluate, and interpret career information.
- 50.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.
- 51.0 Develop skills to locate, evaluate, and interpret career information.
- 52.0 Identify and demonstrate processes for making short and long term goals.
- 53.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
- 54.0 Understand the relationship between educational achievement and career choices/postsecondary options.
- 55.0 Identify a career cluster and related pathways that match career and education goals.
- 56.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
- 57.0 Demonstrate knowledge of technology and its application in the chosen career fields/clusters.

#### OPTIONAL

- 58.0 Demonstrate acquired skills through On-The-Job training.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Career Education Services for Students with Disabilities 1  
**Course Number:** 9603110  
**Course Credit:** 1 CR

**Course Description:**

This course is designed to develop realistic employment goals; to develop employability skills appropriate to the workplace, and to develop skills necessary to the chosen career path.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate realistic employment goals. The student will be able to:
01.01	Express personal strengths and weaknesses, including social adjustments and cognitive abilities.
01.02	Match interests and abilities with potential careers.
02.0	Describe human relations skills necessary for success in the workforce. The student will be able to:
02.01	Define punctuality, initiative, courtesy, loyalty, honesty, respect, responsibility, fairness, and trustworthiness.
02.02	Identify and discuss the role of an employee as a team member in the workplace.
02.03	Describe the use of teams in the workplace to increase productivity and product quality.
02.04	Discuss the importance of human relations to success in the workplace.
02.05	Define empathy, compassion, caring, enthusiasm, positive attitude, and self-motivation.
03.0	Develop a familiarity with information technology. The student will be able to:
03.01	Develop keyboarding skills to enter and manipulate text and data.
03.02	Use reference materials such as on-line help, vendor bulletin boards, tutorials, and manuals available for application software.
04.0	Develop individualized education and career plans. The student will be able to:
04.01	Describe the steps involved in planning for education, career, and life goals.

**CTE Standards and Benchmarks**

04.02 Use a variety of sources and methods to determine career interests and abilities.

04.03 Identify and describe personal skills, interests, values, experiences, personality traits, and academic abilities.

04.04 Identify non-traditional career options.

04.05 Develop a career plan to include training/education requirements, tasks/responsibilities, employment prospects, and career/advancement opportunities.

Competencies from one or more CTE programs must be included in this coursework.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Career Education Services for Students with Disabilities 2  
**Course Number:** 9603120  
**Course Credit:** 1 CR

**Course Description:**

This course is designed to develop realistic employment goals; to develop employability skills appropriate to the workplace, and to develop skills necessary to the chosen career path.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate realistic employment goals. The student will be able to:
01.03	Identify knowledge and additional skills necessary for job or career of interest
01.04	Determine time-frame for achieving necessary skills for desired job or career of interest
05.0	Develop a familiarity with information technology. The student will be able to:
05.01	Demonstrate proper work-related internet use and security.
05.02	Select and use appropriate devices, services, and applications for telecommunications.
05.03	Utilize presentation software to communicate ideas to a group.
05.04	Utilize word processing software to produce workplace documents.
05.05	Utilize spreadsheet software to create meaningful workplace records.
05.06	Identify the functions of web browsers, and use them to access the World Wide Web and other computer resources.
05.07	Use different types of web search engines effectively to locate information.
05.08	Demonstrate ways to communicate effectively using Internet technology.
05.09	Employ computer operations applications to access, create, manage, integrate, and store information.
05.10	Employ technological tools to expedite workflow including word processing, databases, reports, spreadsheets, multimedia presentations, electronic calendar, contacts, email, and internet applications.
06.0	Identify the educational requirements, tasks performed, and employment opportunities for individuals who wish to enter occupations related to

**CTE Standards and Benchmarks**

the field of study in which the student is enrolled. The student will be able to:

06.01 Identify the career area of study in which they wish to enroll.

06.02 Research and identify the educational requirements of the occupation in which they wish to work.

06.03 Identify the job tasks that the occupation will require.

07.0 Practice quality performance. The student will be able to:

07.01 Maintains an organized work area.

07.02 Uses equipment, technology, and work strategies to improve workflow.

07.03 Carries out written and verbal directions accurately.

07.04 Completes work efficiently and effectively.

07.05 Adheres to worksite regulations and practices.

08.0 Demonstrate and incorporate workplace safety procedures. The student will be able to:

08.01 Describe how to follow workplace procedures for hazards and incidents.

08.02 Describe the procedure for identifying, dealing with, or reporting a hazard.

08.03 Describe how to assess and control risks.

09.0 Identify and demonstrate processes for making short and long term goals. The student will be able to:

09.01 Identify short term goals and how to reach them.

09.02 Identify long-term goals and set up a time line to meet the goals.

09.03 Demonstrate the ability to categorize goals into area of importance and urgency.

Competencies from one or more CTE programs must be included in this coursework.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Career Education Services for Students with Disabilities 3  
**Course Number:** 9603130  
**Course Credit:** 1 CR

**Course Description:**

This course is designed to develop realistic employment goals; to develop employability skills appropriate to the workplace, and to develop skills necessary to the chosen career path.

<b>CTE Standards and Benchmarks</b>	
10.0	Explain the impact of technology on occupations related to the field of study in which the student is enrolled. The student will be able to:
10.01	Create a project using an integrated software package.
10.02	Create a presentation utilizing a multimedia software package.
10.03	Evaluate a specific company's policy for insuring security and protection of computerized data.
10.04	Demonstrate uses of equipment to process information (e.g., 10-key, electronic cash register, OCR scanner, financial calculator, computer).
04.0	Develop individualized education and career plans. The student will be able to:
04.06	Identify what courses of study will be needed to reach their educational goal.
04.07	Identify courses of study that must be completed to reach their employment goal.
04.08	Develop a time line to show which courses will be taken during high school and which will be taken as postsecondary coursework.
11.0	Demonstrate proper and safe procedures while working with tools, equipment, systems and materials. The student will be able to:
11.01	Inspect personal protective equipment (PPE) to determine if it is safe to use.
11.02	Visually inspect tools or equipment to determine if they are safe to use.
11.03	Properly don and remove PPE.
11.04	Demonstrate how to keep work area tidy and properly store equipment.

## CTE Standards and Benchmarks

12.0 Identify terminology related to the chosen occupation. The student will be able to:

12.01 Identify vocabulary specific to their career field.

12.02 Use the proper vocabulary when discussing their chosen career.

13.0 Demonstrate job seeking and employability skills. The student will be able to:

13.01 Identify resources used in a job search (e.g., newspaper, Internet, networking).

13.02 Discuss importance of drug tests and criminal background checks in identifying possible employment opportunities.

13.03 Identify steps of the job application process including arranging for references and proper documentation (e.g., green card).

13.04 Identify procedures and documents required when applying for a job (e.g., application, W-4, I-9).

13.05 Prepare a resume (electronic and traditional), letter of application, follow-up letter, acceptance/rejection letter, letter of resignation, and letter of recommendation.

13.06 Demonstrate appropriate dress and grooming for employment.

13.07 Demonstrate effective interviewing skills (behavioral).

13.08 Describe methods for handling illegal interview and application questions.

13.09 Discuss state and federal labor laws regulating the workplace (e.g., Child Labor Law, sexual harassment, EEOC, ADA, FMLA).

13.10 Identify positive work attitudes and behaviors such as honesty, compassion, respect, responsibility, fairness, trustworthiness, and caring.

13.11 Describe importance of producing quality work and meeting performance standards.

13.12 Identify qualities typically required for promotion (e.g., productivity, dependability, responsibility).

13.13 Identify how to prepare for job separation and re-employment.

13.14 Write a job description that includes the responsibilities of an entry-level position.

13.15 Prepare a classified ad for an entry-level position.

13.16 Create a list of interview questions for an entry-level position.

Competencies from one or more CTE programs must be included in this coursework

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Career Education Services for Students with Disabilities 4  
**Course Number:** 9603140  
**Course Credit:** 1 CR

**Course Description:**

This course is designed to develop realistic employment goals; to develop employability skills appropriate to the workplace, and to develop skills necessary to the chosen career path.

<b>CTE Standards and Benchmarks</b>	
14.0	Demonstrate an understanding of workplace safety. The student will be able to:
14.01	Communicate that workers must follow instruction and act in a way that does not place at risk their own health or safety or that of any other person.
14.02	Design a chart that illustrates safety guidelines.
15.0	Demonstrate an understanding of workplace organization. The student will be able to:
15.01	Identify role in family, circle of friends, school, and other groups/committees.
15.02	Illustrate the hierarchy of a company.
15.03	Define vision and mission statements.
16.0	Describe leadership and organizational skills. The student will be able to:
16.01	Employ leadership skills to accomplish organizational goals and objectives.
16.02	Establish and maintain effective working relationships with others in order to accomplish objectives and tasks.
16.03	Conduct and participate in meetings to accomplish work tasks.
16.04	Employ mentoring skills to inspire and teach others.
17.0	Describe the roles within teams, work units, departments, organizations and the larger environment. The student will be able to:
17.01	Define teamwork.
17.02	Employ teamwork in working towards a common goal.



## CTE Standards and Benchmarks

17.03 Analyze how own actions impact the overall organization.

18.0 Discuss individual interests, aptitudes, and opportunities as they relate to the chosen career. The student will be able to:

18.01 Use a variety of sources and methods to determine career interests and abilities.

18.02 Identify and describe personal skills, interests, values, experiences, personality traits, and academic abilities.

18.03 Identify non-traditional career options.

18.04 Debate how educational level affects career choice.

18.05 Explain importance of networking when researching occupations.

18.06 Identify advantages of attending a trade or technical school.

18.07 Identify career training available in the military services.

19.0 Identify career and employment opportunities. The student will be able to:

19.01 Research and identify job opportunities in their chosen career.

19.02 Research and identify starting and average salaries for their chosen career.

20.0 Demonstrate personal productivity. The student will be able to:

20.01 Models behaviors that demonstrate self-discipline, reliability, and dependability

20.02 Acts in a professional, respectful, and non-offensive manner while under pressure

20.03 Employs critical thinking skills to determine the best options or outcomes when faced with a challenging situation

20.04 Respond to situations and/or requests in a timely manner

21.0 Describe the duties and responsibilities of a successful employee. The student will be able to:

21.01 Explain how to handle customer inquiries/complaints.

21.02 Explain how to handle difficult internal and external customers

21.03 Explain how to interpret policies to internal and external customers.

21.04 Classify customer services according to nature and characteristics of the activity.

## CTE Standards and Benchmarks

21.05 Review methods to resolve customer problems through clarifying and explaining policies and procedures.

21.06 Explain the importance of stress management and relaxation techniques as they relate to job performance.

21.07 Demonstrate an understanding of gender, age, disability, and cultural courtesy.

21.08 Describe workplace codes of professional/business conduct.

21.09 Explain the concepts of integrity, credibility, reliability, and perseverance.

21.10 List the responsibilities an employer has for his/her employees (ethical, social, legal.)

Competencies from one or more CTE programs must be included in this coursework

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Career Education Services for Students with Disabilities 5  
**Course Number:** 9603150  
**Course Credit:** 1 CR

**Course Description:**

This course is designed to develop realistic employment goals; to develop employability skills appropriate to the workplace, and to develop skills necessary to the chosen career path.

<b>CTE Standards and Benchmarks</b>	
22.0	Use oral and written communication skills in creating, expressing and interpreting information and ideas. The student will be able to:
22.01	Select and employ appropriate communication concepts and strategies to enhance oral and written communication in the workplace.
22.02	Locate, organize and reference written information from various sources.
22.03	Design, develop and deliver formal and informal presentations using appropriate media to engage and inform diverse audiences
22.04	Interpret verbal and nonverbal cues/behaviors that enhance communication.
22.05	Apply active listening skills to obtain and clarify information.
22.06	Develop and interpret tables and charts to support written and oral communications.
22.07	Exhibit public relations skills that aid in achieving customer satisfaction.
22.08	Develop and interpret tables and charts to support written and oral communications.
22.09	Describe the importance of the proper use of grammar, vocabulary, and diction.
22.10	Interpret verbal and nonverbal cues/behaviors that enhance communication.
22.11	Apply active listening skills to obtain and clarify information.
22.12	Demonstrate ability to communicate in a multicultural setting.
22.13	Select and employ appropriate communication concepts and strategies to enhance oral and written communication in the workplace.
22.14	Develop and interpret tables and charts to support written and oral communications.

## CTE Standards and Benchmarks

22.15 Design, develop and deliver formal and informal presentations using appropriate media to engage and inform diverse audiences.

22.16 Design, develop and deliver formal and informal presentations using appropriate media to engage and inform diverse audiences.

23.0 Identify types of mathematical skills necessary for successful employment. The student will be able to:

23.01 Compute and compare gross pay, net pay, overtime pay, and specific payroll deductions.

23.02 Compute different methods of monetary compensation (e.g., annual salary, hourly wage, commission, piecework).

23.03 Calculate exemptions, deductions, and taxable income and use tax tables to prepare a federal income tax form.

23.04 Prepare a balanced budget based on income and expenses.

23.05 Describe importance of maintaining an accurate checkbook balance.

23.06 Identify mathematical skills used by employees in a variety of career fields (e.g., electricians and apply electrical formulas to calculate watts, amps, ohms, or volts).

24.0 Demonstrate industry related mathematics knowledge and skills based on CTE competencies. The student will be able to:

24.01 Demonstrate knowledge of arithmetic operations.

24.02 Analyze and apply data and measurements to solve problems and interpret documents.

24.03 Construct charts/tables/graphs using functions and data.

25.0 Demonstrate industry related science knowledge and skills based on CTE competencies. The student will be able to:

25.01 Discuss the role of creativity in constructing scientific questions, methods and explanations.

25.02 Formulate scientifically investigable questions, construct investigations, collect and evaluate data, and develop scientific recommendations based on findings.

26.0 Demonstrate industry related language arts knowledge and skills based on CTE competencies. The student will be able to:

26.01 Locate, comprehend and evaluate key elements of oral and written information.

26.02 Draft, revise, and edit written documents using correct grammar, punctuation and vocabulary.

26.03 Present information formally and informally for specific purposes and audiences.

27.0 Identify types of communication skills necessary for successful employment. The student will be able to:

27.01 Describe the importance of the proper use of grammar, vocabulary, and diction.

## CTE Standards and Benchmarks

27.02	Identify the appropriate way to address people.
27.03	Identify appropriate conversation for work related settings.
27.04	Describe listening, speaking, and nonverbal skills necessary to determine customer needs.
27.05	List professional vocabulary appropriate for the work environment
27.06	Demonstrate ability to communicate in a multicultural setting
27.07	Identify and define commonly used customer service terms such as complaints, internal and external customers.
27.08	Demonstrate the ability to listen to, follow, and provide directions
27.09	Demonstrate the placing/receiving of telephone calls in a businesslike manner.
27.10	Demonstrate ability to locate, understand, and interpret information found in trade manuals, schedules, charts, diagrams, tables of contents, indexes, labels, and Internet resources.
28.0	Solve problems using critical thinking skills, creativity and innovation. The student will be able to:
28.01	Employ critical thinking skills independently and in teams to solve problems and make decisions.
28.02	Employ critical thinking and interpersonal skills to resolve conflicts.
28.03	Identify and document workplace performance goals and monitor progress toward those goals.
28.04	Conduct technical research to gather information necessary for decision-making.
29.0	Use information technology tools. The student will be able to:
29.01	Use personal information management (PIM) applications to increase workplace efficiency.
29.02	Employ technological tools to expedite workflow including word processing, databases, reports, spreadsheets, multimedia presentations, electronic calendar, contacts, email, and internet applications.
29.03	Employ computer operations applications to access, create, manage, integrate, and store information.
29.04	Employ collaborative/groupware applications to facilitate group work.
30.0	Identify a career cluster and related pathways that match career and education goals. The student will be able to:
30.01	List Florida's seventeen career clusters.
30.02	Research the national career clusters website

## CTE Standards and Benchmarks

30.03 Identify a career cluster and related pathways through an interest assessment that match career and education goals.

30.04 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals

Competencies from one or more CTE programs must be included in this coursework.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Career Education Services for Students with Disabilities 6  
**Course Number:** 9603160  
**Course Credit:** 1 CR

**Course Description:**

This course is designed to develop realistic employment goals; to develop employability skills appropriate to the workplace, and to develop skills necessary to the chosen career path.

<b>CTE Standards and Benchmarks</b>	
31.0	Demonstrate leadership and teamwork skills needed to accomplish team goals and objectives. The student will be able to:
31.01	Employ leadership skills to accomplish organizational goals and objectives.
31.02	Establish and maintain effective working relationships with others in order to accomplish objectives and tasks.
31.03	Conduct and participate in meetings to accomplish work tasks.
31.04	Employ mentoring skills to inspire and teach others.
32.0	Apply leadership and communication skills. The student will be able to:
32.01	Employ leadership skills to accomplish organizational goals and objectives.
32.02	Establish and maintain effective working relationships with others in order to accomplish objectives and tasks.
32.03	Conduct and participate in meetings to accomplish work tasks.
32.04	Employ mentoring skills to inspire and teach others.
33.0	Exhibit positive human relations and leadership skills. The student will be able to:
33.01	Describe the basic nature of self-understanding.
33.02	Identify and demonstrate positive personality traits.
33.03	Using interpersonal skills, demonstrate the ability to appropriately express feelings, reactions, ideas, opinions, wants, and needs.
33.04	Define and practice compassion, fairness, honesty, integrity, perseverance, courtesy, respect, responsibility, self-discipline, and

## CTE Standards and Benchmarks

trustworthiness.

33.05 Role-play behaviors that will promote effective human relations.

34.0 Demonstrate leadership and teamwork skills needed to accomplish team goals and objectives. The student will be able to:

34.01 Employ leadership skills to accomplish organizational goals and objectives.

34.02 Establish and maintain effective working relationships with others in order to accomplish objectives and tasks.

34.03 Conduct and participate in meetings to accomplish work tasks.

34.04 Employ mentoring skills to inspire and teach others.

35.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship. The student will be able to:

35.01 Identify and demonstrate positive work behaviors needed to be employable.

35.02 Develop personal career plan that includes goals, objectives, and strategies.

35.03 Examine licensing, certification, and industry credentialing requirements.

35.04 Maintain a career portfolio to document knowledge, skills, and experience.

35.05 Evaluate and compare employment opportunities that match career goals.

35.06 Identify and exhibit traits for retaining employment.

35.07 Identify opportunities and research requirements for career advancement.

35.08 Research the benefits of ongoing professional development.

35.09 Examine and describe entrepreneurship opportunities as a career planning option.

Competencies from one or more CTE programs must be included in this coursework.



**Florida Department of Education  
Student Performance Standards**

**Course Title:** Career Education Services for Students with Disabilities 7  
**Course Number:** 9603170  
**Course Credit:** 1 CR

**Course Description:**

This course is designed to develop realistic employment goals; to develop employability skills appropriate to the workplace, and to develop skills necessary to the chosen career path.

<b>CTE Standards and Benchmarks</b>	
36.0	Develop an awareness of management functions and organizational structures as they relate to today's workplace and employer/employee roles. The student will be able to:
36.01	Describe roles, functions, levels, and types of managers.
36.02	Discuss evolution of management from the Industrial Revolution to current philosophies and theories.
36.03	Identify a variety of management styles.
36.04	Cite examples of how workers adjust to different management styles.
36.05	Identify a variety of corporate organizational structures.
36.06	Identify how a corporate "chain of command" works.
36.07	Describe significance of a company's "corporate culture."
36.08	Describe importance of achieving internal and external customer satisfaction.
36.09	Identify examples of how cultural diversity can affect the workplace.
36.10	List reasons why written policies are needed in the workplace.
36.11	Discuss role of ethics and morality in management.
36.12	Describe how a company's marketing efforts can affect employees and customers.
37.0	Demonstrate the competencies of employability and career development. The student will be able to:
37.01	Participation in required career-related training and/or education program

## CTE Standards and Benchmarks

37.02 Passing certification tests to qualify for licensure and/or certification

37.03 Participation in company training or orientation

38.0 Demonstrate the importance of health, safety, and environmental management systems in organizational performance and regulatory compliance. The student will be able to:

38.01 Describe personal and jobsite safety rules and regulations that maintain safe and healthy work environments.

38.02 Explain emergency procedures to follow in response to workplace accidents.

38.03 Create a disaster and/or emergency response plan.

39.0 Describe the importance of professional ethics and legal responsibilities. The student will be able to:

39.01 Evaluate and justify decisions based on ethical reasoning.

39.02 Evaluate alternative responses to workplace situations based on personal, professional, ethical, legal responsibilities, and employer policies.

39.03 Identify and explain personal and long-term consequences of unethical or illegal behaviors in the workplace.

39.04 Interpret and explain written organizational policies and procedures.

40.0 Use appropriate equipment and supplies safely and correctly. The student will be able to:

40.01 These student performance standards are job specific and correspond to the job preparatory program in which the student is enrolled.

41.0 Demonstrate competencies identified for a specific program component. The student will be able to:

41.01 These student performance standards are job specific and correspond to the job preparatory program in which the student is enrolled.

Competencies from one or more CTE programs must be included in this coursework.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Career Education Services for Students with Disabilities 8  
**Course Number:** 9603180  
**Course Credit:** 1 CR

**Course Description:**

This course is designed to develop realistic employment goals; to develop employability skills appropriate to the workplace, and to develop skills necessary to the chosen career path.

<b>CTE Standards and Benchmarks</b>	
42.0	Demonstrate knowledge of job accommodations and apply skills related to self-determination and self-advocacy. The student will be able to:
42.01	Describe the definition of job accommodations
42.02	Identify basic duties that an employee must be able to perform with or without reasonable accommodations
42.03	Identify the tasks and job functions that a person with a disability cannot fully perform without some type of accommodation
42.04	Identify the modification that will solve the problem
42.05	Describe who is responsible for identifying an appropriate accommodation and when to request it
42.06	Describe options if employer refuses to provide a reasonable accommodation
43.0	Demonstrate personal money-management concepts, procedures and strategies. The student will be able to:
43.01	Identify and describe the services and legal responsibilities of financial institutions.
43.02	Describe the effect of money management on personal and career goals.
43.03	Develop a personal budget and financial goals.
43.04	Complete financial instruments for making deposits and withdrawals.
43.05	Maintain financial records.
43.06	Read and reconcile financial statements

## CTE Standards and Benchmarks

43.07 Research, compare and contrast investment opportunities.

44.0 Research and discuss career and employment opportunities. The student will be able to:

44.01 Explain importance of staying up-to-date on social, technical, and economic changes.

44.02 Evaluate and compare employment opportunities that match career goals

44.03 Identify opportunities and research requirements for career advancement.

45.0 Describe the rights, responsibilities and benefits of employment. The student will be able to:

45.01 Communicate his/her responsibilities as an employee.

45.02 Explain the benefits related to of employment, such as health insurance, leave time, worker's compensation, retirement plans and Social Security.

45.03 Describe legal rights that apply to persons with disabilities in school, community, and workplace, including the Americans with Disabilities Act, the Rehabilitation Act, the Fair Labor Standards Act (FLSA), and child labor laws.

45.04 Understand steps that may be taken when rights have been violated.

46.0 Understand the benefits of disclosure. The student will be able to:

46.01 Communicate the definition of disclosure.

46.02 Identify appropriateness of disclosing disability in some situations and not others.

46.03 Evaluate the pros and cons when considering disclosure.

46.04 Communicate how disclosure provides legal protection against discrimination

47.0 Understand how to request job accommodations. The student will be able to:

47.01 Identify and describe the legal responsibilities of employers and employees in the work place.

47.02 Identify work-related reasonable accommodations.

47.03 Demonstrate ability to communicate necessary job accommodations to perspective employers.

47.04 Employ technological tools to research federal, state and local job accommodation resources.

47.05 Understand disability discrimination and harassment in the workplace.

48.0 Demonstrate a knowledge of self-advocacy. The student will be able to:

## CTE Standards and Benchmarks

48.01 Communicate disability, needs, skills, and abilities.

48.02 Communicate legal rights as a person with a disability.

48.03 Analyze work space, method of communication with others, and tasks

48.04 Research the range of accommodations and choose one.

49.0 Develop skills to locate, evaluate, and interpret career information. The student will be able to:

49.01 Use a variety of sources and methods to determine career interests and abilities.

49.02 Identify and describe personal skills, interests, values, experiences, personality traits, and academic abilities.

49.03 Identify non-traditional career options.

49.04 Debate how educational level affects career choice.

49.05 Explain importance of networking when researching occupations.

49.06 Identify advantages of attending a trade or technical school.

49.07 Identify sources of financial assistance for postsecondary education and training.

49.08 Describe the requirements and procedures for obtaining different types of financial assistance.

49.09 Develop an education and career plan.

49.10 Select an occupational area and identify its career opportunities, employment prospects, educational requirements, and advancement opportunities

49.11 Evaluate personal strengths and weaknesses in relation to the selected occupational area.

49.12 Explain the influence of life roles on career choice.

49.13 Review the importance of updating occupational skills and knowledge through training, continuing education, and life-long learning.

49.14 Demonstrate job performance skills.

49.15 Display expected level of productivity.

49.16 Use evaluations to improve own performance.

49.17 Identify, organize, plan and allocate resources.

## CTE Standards and Benchmarks

49.18 Work cooperatively with others

49.19 Acquire and use information including using computers.

49.20 Work effectively within the context of complex interrelationships.

49.21 Work with a variety of technologies.

49.22 Perform basic computer operations.

Competencies from one or more CTE programs must be included in this coursework.

### **Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes.**

The student will be able to:

50.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.

51.0 Develop skills to locate, evaluate, and interpret career information.

52.0 Identify and demonstrate processes for making short and long term goals.

53.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.

54.0 Understand the relationship between educational achievement and career choices/postsecondary options.

55.0 Identify a career cluster and related pathways that match career and education goals.

56.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.

57.0 Demonstrate knowledge of technology and its application in the chosen career fields/clusters.

OPTIONAL

58.0 Demonstrate acquired skills through On-The-Job training.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Academic Alignment**

Secondary Career and Technical Education courses are pending alignment to the B.E.S.T. (Benchmarks for Excellent Student Thinking) Standards for English Language Arts (ELA) and Mathematics that were adopted by the State Board of Education in February 2020. Academic alignment is an ongoing, collaborative effort of professional educators that provide clear expectations for progression year-to-year through course alignment. This initiative supports CTE programs by improving student performance through the integration of academic content within CTE courses.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Cooperative Training – OJT**

On-the-job training is appropriate but not required for this program. Whenever offered, the rules, guidelines, and requirements specified in the OJT framework apply.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Postsecondary students with disabilities must self-identify, present documentation, request accommodations if needed, and develop a plan with their counselor and/or instructors. Accommodations received in postsecondary education may differ from those received in secondary education. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional

methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Some secondary students with disabilities (ESE) may need additional time (i.e., longer than the regular school year), to master the student performance standards associated with a regular Occupational Completion Point (OCP) or a Modified Occupational Completion Point (MOCP). If needed, a student may enroll in the same career and technical course more than once. Documentation should be included in the IEP that clearly indicates that it is anticipated that the student may need an additional year to complete an OCP/MOCP. The student should work on different competencies and new applications of competencies each year toward completion of the OCP/MOCP. After achieving the competencies identified for the year, the student earns credit for the course. It is important to ensure that credits earned by students are reported accurately. The district's information system must be designed to accept multiple credits for the same course number for eligible students with disabilities.



Florida Department of Education  
Curriculum Framework

**Program Title:** Specialized Career Education, Basic  
**Program Type:** Career Preparatory  
**Career Cluster:** Instructional Support Services

**Career Certificate Program**

Program Number	S990005
CIP Number	13990005SN
Grade Level	30, 31
Standard Length	450 hours
Teacher Certification	Refer to the <b><u>Program Structure</u></b> section.
CTSO	CTSO applicable to related CTE program
SOC Codes (all applicable)	SOC applicable to related CTE program

**Purpose**

This program offers a sequence of courses that provides coherent and rigorous content aligned with challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and careers in the Instructional Support Services career cluster; provides technical skill proficiency, and includes competency-based applied learning that contributes to the academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, general employability skills, technical skills, and occupation-specific skills, and knowledge of all aspects of the related career cluster.

The purpose of this individualized job preparatory program is to provide specialized career education for students with significant cognitive/learning disabilities who, in addition to instructional accommodations, require modifications to the CTE program in order to meet individual interests, abilities, and learning needs. The goal is integrated competitive employment in the student’s chosen occupation. The program is individualized for each student and documented in an individualized plan of study (IPS). Instruction is competency-based with integrated academic, technical, and problem-solving skills. The IPS consists of standards and benchmarks selected from one or more CTE programs to create an individualized plan of study for each student. Students, who have already completed equivalent coursework (standards and benchmarks) at the secondary level (9001810), should be enrolled in Specialized Career Education, Advanced (S990006). Documentation of standards and benchmarks previously mastered should be reviewed in order to develop an individualized plan of study that further guides the student toward his or her employment goals.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

## Program Structure

This program is divided into a series of three courses that comprise an Occupational Completion Point (OCP). Each course includes standards and benchmarks (selected on an individual basis) from one or more of the Career and Technical Education Programs. These standards and benchmarks must be taught in an industry certified environment or using industry standard equipment. Course content includes but is not limited to: determining employment goals; demonstrating employability and self-advocacy skills; using technology, tools, equipment, and supplies safely and correctly; and, demonstrating personal productivity. Each course may include Job Shadowing, OJT, and Internships to further strengthen the student's learning experience throughout the career decision-making and job preparation process.

The particular outcomes and student performance standards which the student must master to complete each course must be specified on the IPS on an individualized basis. This instruction provides each student the opportunity to prepare for industry certification as stated in his/her IPS.

Once the individualized standards and benchmarks are met for a course, the student is reported as a completer. After completion, the student may either enter employment or move to the next course with a new set of individualized performance standards listed in the IPS. A student who is not able to complete the standards and benchmarks listed in his or her IPS in one semester may re-enroll in the same course the following semester in order to master the required standards and benchmarks. The IPS should be reviewed on a regular basis to determine student progress and/or the need for revision. This is a terminal program; therefore, once all three courses are completed, an OCP is awarded and the student would: enroll in Specialized Career Education, Advanced (S990006); enroll in a CTE program of his or her choice; or, transition to employment.

The three courses in this program have been assigned course numbers in the SCNS (Statewide Course Numbering System) in accordance with Section 1007.24 (1), F.S. Career and Technical credit shall be awarded to the student on a transcript in accordance with Section 1001.44(3)(b), F.S.

The following table illustrates the postsecondary program structure:

OCP	Course Number	Course Title	Teacher Certification	Length	SOC Code
A	SLS0460	Specialized Career Education, Basic 1	ANY CTE FIELD OR COVERAGE	150 hours	SOC applicable to related CTE program
	SLS0461	Specialized Career Education, Basic 2		150 hours	
	SLS0462	Specialized Career Education, Basic 3		150 hours	

## **Common Career Technical Core – Career Ready Practices**

Career Ready Practices describe the career-ready skills that educators should seek to develop in their students. These practices are not exclusive to a Career Pathway, program of study, discipline or level of education. Career Ready Practices should be taught and reinforced in all career exploration and preparation programs with increasingly higher levels of complexity and expectation as a student advances through a program of study.

1. Act as a responsible and contributing citizen and employee.
2. Apply appropriate academic and technical skills.
3. Attend to personal health and financial well-being.
4. Communicate clearly, effectively and with reason.
5. Consider the environmental, social and economic impacts of decisions.
6. Demonstrate creativity and innovation.
7. Employ valid and reliable research strategies.
8. Utilize critical thinking to make sense of problems and persevere in solving them.
9. Model integrity, ethical leadership and effective management.
10. Plan education and career path aligned to personal goals.
11. Use technology to enhance productivity.
12. Work productively in teams while using cultural/global competence.

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate self-advocacy and self-determination skills.
- 02.0 Discuss individual interests, aptitudes, and opportunities.
- 03.0 Review and discuss career and employment opportunities.
- 04.0 Determine realistic employment goals.
- 05.0 Demonstrate work-related skills.
- 06.0 Demonstrate mastery of selected standards and benchmarks from one or more job preparatory programs (not previously mastered).
- 07.0 Describe the rights, responsibilities and benefits of employment.
- 08.0 Manage interpersonal relationships.
- 09.0 Demonstrate job seeking and employability skills.
- 10.0 Demonstrate personal productivity.
- 11.0 Demonstrate employability and work-related skills appropriate to the workplace.
- 12.0 Demonstrate proper and safe procedures while working with tools, equipment, systems, and materials.
- 13.0 Demonstrate mastery of selected standards and benchmarks from one or more job preparatory programs (not previously mastered).
- 14.0 Describe the duties and responsibilities of a successful employee.
- 15.0 Demonstrate how to request job accommodations.
- 16.0 Define key terms related to the chosen occupation.
- 17.0 Demonstrate oral and written communication skills in creating, expressing and interpreting information and ideas.
- 18.0 Demonstrate industry related mathematical skills.
- 19.0 Demonstrate industry related science knowledge and skills based on CTE standards and benchmarks.
- 20.0 Demonstrate industry related language arts knowledge and skills based on CTE standards and benchmarks.
- 21.0 Demonstrate mastery of selected standards and benchmarks from one or more job preparatory programs (not previously mastered).

Florida Department of Education  
Student Performance Standards

Program Title: Specialized Career Education, Basic  
Career Certificate Program Number: S990005

<b>Course Number: SLS0460</b>	
<b>Occupational Completion Point: A</b>	
<b>Specialized Career Education, Basic 1 – 150 Hours – SOC Code N/A</b>	
01.0	Demonstrate self-advocacy and self-determination skills. The student will be able to:
01.01	Identify and evaluate personal needs, interests, and goals.
01.02	Describe abilities, skills, and individual needs related to disability.
01.03	Make plans based on personal and career choices.
01.04	Carry out plans and adjust to changing circumstances.
01.05	Explain legal rights as a person with a disability.
01.06	Define the term disclosure.
01.07	Identify appropriateness of disclosing disability in some situations and not others.
01.08	Evaluate the advantages and disadvantages of disclosure.
01.09	Explain how disclosure provides legal protection against discrimination.
01.10	Analyze work space, method of communication with others, and tasks.
01.11	Review the range of accommodations and choose the best one based on individual needs.
02.0	Discuss individual interests, aptitudes, and opportunities. The student will be able to:
02.01	Use a variety of resources and methods to determine career interests and abilities.
02.02	Identify and describe personal skills, interests, values, experiences, personality traits, and academic abilities.
02.03	Identify non-traditional career options.
02.04	Describe how educational level affects career choice.

02.05	Explain the importance of networking when exploring occupations.
02.06	Identify advantages of attending a career or technical center or college.
02.07	Explain the importance of updating occupational skills and knowledge through training, continuing education, and life-long learning.
03.0	Review and discuss career and employment opportunities. The student will be able to:
03.01	Explain the importance of staying up-to-date on social, technical, and economic changes.
03.02	Evaluate and compare employment opportunities that match career goals.
03.03	Identify opportunities and requirements for career advancement.
03.04	Identify what courses of study will be needed to reach his/her educational goal.
04.0	Determine realistic employment goals. The student will be able to:
04.01	Match interests and abilities with potential careers.
04.02	Compare personal strengths and weaknesses, including physical and cognitive abilities, to specific job requirements.
04.03	Collect information needed to determine realistic employment goals.
04.04	Identify potential careers available in the community.
04.05	Develop a career and education plan that includes short and long-term goals and postsecondary/career goals.
05.0	Demonstrate work-related skills. The student will be able to:
05.01	Demonstrate the ability to follow directions.
05.02	Demonstrate appropriate behaviors related to task completion.
05.03	Explain individual rights and responsibilities in the workplace.
05.04	Respond appropriately to constructive criticism.
05.05	Work cooperatively with others.
06.0	Demonstrate mastery of selected benchmarks from one or more job preparatory programs (not previously mastered). The student will be able to:
06.01	Perform tasks as they relate to specific job training performance.
06.02	Demonstrate safety standards and benchmarks related to specific job training.

Standards and benchmarks from one or more CTE programs must be included in this coursework. This may include Internship, Job Shadowing and/or OJT.

**Course Number: SLS0461**  
**Occupational Completion Point: A**  
**Specialized Career Education, Basic 2 – 150 Hours – SOC Code N/A**

07.0 Describe the rights, responsibilities and benefits of employment. The student will be able to:

07.01 Describe his/her responsibilities as an employee.

07.02 Explain the benefits of employment, such as health insurance, leave time, worker's compensation, retirement plans and Social Security.

07.03 Describe legal rights that apply to persons with disabilities in school, community, and workplace, including the Americans with Disabilities Act, the Rehabilitation Act, and the Fair Labor Standards Act (FLSA).

07.04 Describe steps that may be taken when rights have been violated.

08.0 Manage interpersonal relationships. The student will be able to:

08.01 Demonstrate appropriate relationships with peers.

08.02 Participate as a member of a team.

08.03 Demonstrate positive work attitudes.

08.04 Demonstrate characteristics of a good employee.

08.05 Maintain positive relationships with co-workers.

08.06 Maintain a positive relationship with a supervisor.

09.0 Demonstrate job seeking and employability skills. The student will be able to:

09.01 Identify resources used in a job search (e.g., newspaper, Internet, networking).

09.02 Discuss the importance of drug tests and criminal background checks when identifying possible employment opportunities.

09.03 Identify steps of the job application process, including arranging for references and proper documentation (e.g., green card, birth certificate, social security card).

09.04 Identify procedures and documents required when applying for a job (e.g., application, W-4, I-9).

09.05 Prepare a resume (electronic and traditional), letter of application, follow-up letter, acceptance/rejection letter, letter of resignation, and letter of recommendation.

09.06 Demonstrate appropriate dress and grooming for employment.

10.0	Demonstrate personal productivity. The student will be able to:
10.01	Demonstrate self-discipline, reliability, and dependability.
10.02	Act in a professional, respectful, and non-offensive manner while under pressure.
10.03	Determine the best options or outcomes when faced with a challenging situation.
10.04	Respond to situations and/or requests in a timely manner.
11.0	Demonstrate employability and work-related skills appropriate to the workplace. The student will be able to:
11.01	Participate in job search activities.
11.02	Complete an accurate job application.
11.03	Demonstrate effective job interviewing skills.
11.04	Demonstrate the ability to follow directions.
11.05	Demonstrate time management practices.
11.06	Access various modes of transportation.
12.0	Demonstrate proper and safe procedures while working with tools, equipment, systems and materials. The student will be able to:
12.01	Inspect personal protective equipment (PPE) to determine if it is safe to use.
12.02	Inspect tools or equipment to determine if they are safe to use.
12.03	Identify technology, tools, equipment, and supplies necessary for a specific work task.
12.04	Demonstrate how to keep work area tidy with equipment properly stored.
12.05	Locate technology, tools, equipment, and supplies required to complete a specific work task.
12.06	Use technology, tools, equipment, and supplies safely and correctly for a specific work task.
12.07	Clean and maintain technology, tools, and equipment.
12.08	Store technology, tools, equipment, and supplies correctly.
13.0	Demonstrate mastery of selected standards and benchmarks from one or more job preparatory programs (not previously mastered). The student will be able to:
13.01	Demonstrate mastery of selected standards and benchmarks that are job specific and correspond to the chosen career.



Standards and benchmarks from one or more CTE programs must be included in this coursework. This may include Internship, Job Shadowing and/or OJT.

**Course Number: SLS0462**  
**Occupational Completion Point: A**  
**Specialized Career Education, Basic 3 – 150 Hours – SOC Code N/A**

14.0 Describe the duties and responsibilities of a successful employee. The student will be able to:

14.01 Demonstrate how to handle customer inquiries/complaints.

14.02 Demonstrate how to handle difficult internal and external customers.

14.03 Demonstrate how to interpret policies to internal and external customers.

14.04 Classify customer services according to nature and characteristics of the activity.

14.05 Describe ways of resolving customer problems.

14.06 Explain the importance of stress management and relaxation techniques as they relate to job performance.

14.07 Describe workplace codes of professional/business conduct.

14.08 Explain the concepts of integrity, credibility, reliability, and perseverance.

15.0 Demonstrate how to request job accommodations. The student will be able to:

15.01 Identify and describe the legal responsibilities of employers and employees in the work place.

15.02 Identify work-related reasonable accommodations.

15.03 Request necessary job accommodations from prospective employers.

15.04 Employ technological tools to identify federal, state and local job accommodation resources.

15.05 Explain disability discrimination and harassment in the workplace.

16.0 Define key terms related to the chosen occupation. The student will be able to:

16.01 Identify vocabulary specific to his/her career field.

16.02 Use the proper vocabulary when discussing his/her chosen career.

17.0 Demonstrate oral and written communication skills in creating, expressing, and interpreting information and ideas. The student will be able to:

17.01 Describe the importance of the proper use of grammar, vocabulary, and diction.

17.02	Demonstrate appropriate oral and written communication techniques to communicate clearly and effectively in the workplace.
17.03	Identify appropriate conversation for work related settings.
17.04	Interpret verbal and nonverbal cues/behaviors that enhance communication.
17.05	Describe listening, speaking, and nonverbal skills necessary to determine customer needs.
17.06	Apply active listening skills to obtain and clarify information.
17.07	Demonstrate the appropriate way to address people.
17.08	List professional vocabulary appropriate for the work environment.
17.09	Demonstrate the ability to communicate in a multicultural setting.
17.10	Design, develop and deliver formal and informal presentations using appropriate media.
17.11	Develop and interpret tables and charts to support written and oral communication.
17.12	Identify and define commonly used customer service terms (e.g., complaints, internal and external customers).
17.13	Demonstrate the placing/receiving of telephone calls in a businesslike manner.
17.14	Demonstrate the ability to locate, understand, and interpret information from various sources (e.g., trade manuals, schedules, charts, diagrams, tables of contents, indexes, labels, Internet resources).
18.0	Demonstrate industry related mathematical skills. The student will be able to:
18.01	Compute and compare gross pay, net pay, overtime pay, and specific payroll deductions.
18.02	Compute different methods of monetary compensation (e.g., annual salary, hourly wage, commission, piecework).
18.03	Prepare a balanced budget based on income and expenses.
18.04	Describe the importance of maintaining an accurate checkbook balance.
18.05	Identify mathematical skills used by employees in various career fields.
18.06	Demonstrate arithmetic operations to complete work tasks.
18.07	Use data to solve problems and interpret documents.
19.0	Demonstrate industry related science knowledge and skills based on CTE standards and benchmarks. The student will be able to:
19.01	Discuss the role of creativity in constructing scientific questions, methods and explanations as it relates to the chosen career.

20.0	Demonstrate industry related language arts knowledge and skills based on CTE standards and benchmarks. The student will be able to:
20.01	Draft, revise, and edit written documents using correct grammar, punctuation, and vocabulary.
20.02	Present information formally and informally for specific purposes and audiences.
21.0	Demonstrate mastery of selected standards and benchmarks from one or more job preparatory programs (not previously mastered). The student will be able to:
21.01	Demonstrate mastery of selected standards and benchmarks that are job specific and correspond to the student's chosen career.
Standards and benchmarks from one or more CTE programs must be included in this coursework. This may include Internship, Job Shadowing and/or OJT.	

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Special Notes**

Documentation of mastery of the student performance standards must be maintained. An Individualized Plan of Study (IPS) must be maintained for audit purposes.

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

CTSOs are the intercurricular career and technical student organization(s) providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered. A student should be encouraged to join the related CTSO.

### **Cooperative Training – OJT**

On-the-job training is appropriate but not required for this program. Whenever offered, the rules, guidelines, and requirements specified in the OJT framework apply.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities to meet individual needs and ensure equal access. Postsecondary students with disabilities must self-identify, present documentation, request accommodations if needed, and develop a plan with their counselor and/or instructors. Accommodations received in postsecondary education may differ from those received in secondary education. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Program Title:** Specialized Career Education, Advanced  
**Program Type:** Career Preparatory  
**Career Cluster:** Instructional Support Services

**Career Certificate Program**

Program Number	S990006
CIP Number	13990006SN
Grade Level	30, 31
Standard Length	450 hours
Teacher Certification	Refer to the <b><u>Program Structure</u></b> section.
CTSO	CTSO applicable to related CTE program
SOC Codes (all applicable)	SOC applicable to related CTE program

**Purpose**

This program offers a sequence of courses that provides coherent and rigorous content aligned with challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and careers in the Instructional Support Services career cluster; provides technical skill proficiency, and includes competency-based applied learning that contributes to the academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, general employability skills, technical skills, and occupation-specific skills, and knowledge of all aspects of the related career cluster.

The purpose of this individualized job preparatory program is to provide specialized career education for students with significant cognitive/learning disabilities who, in addition to instructional accommodations, require modifications to the CTE program in order to meet individual interests, abilities, and learning needs. The goal is integrated competitive employment in the student’s chosen occupation. The program is individualized for each student and documented in an individualized plan of study (IPS). Instruction is competency-based with integrated academic, technical, and problem-solving skills. The IPS consists of standards and benchmarks selected from one or more CTE programs to create an individualized plan of study for each student. Students may have already completed coursework at the secondary level (9001810) or at the postsecondary level in Specialized Career Education, Basic (S990005). Documentation of standards and benchmarks previously mastered should be reviewed in order to develop an individualized plan of study that further guides the student toward his or her employment goals.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

## Program Structure

The program is divided into three courses that comprise one Occupational Completion Point (OCP). Each course includes standards and benchmarks (selected on an individual basis) from one or more of the Career and Technical Education Programs. These standards and benchmarks must be taught in an industry certified environment or using industry standard equipment. Course content includes but is not limited to: determining employment goals; demonstrating employability and self-advocacy skills; using technology, tools, equipment, and supplies safely and correctly; and, demonstrating personal productivity. Each course may include Job Shadowing, OJT, and Internships to further strengthen the student's learning experience throughout the career decision-making and job preparation process.

The performance standards and benchmarks which the student must master to complete each course must be specified on the IPS on an individualized basis. This instruction provides each student the opportunity to prepare for industry certification as stated in his or her IPS.

Once the individualized standards and benchmarks are met for a course, the student is reported as a completer. After completion, the student may either enter employment or move to the next course with a new set of individualized performance standards listed in the IPS. A student who is not able to complete the standards and benchmarks listed in his or her IPS in one semester may re-enroll in the same course the following semester in order to master the required standards and benchmarks. The IPS should be reviewed on a regular basis to determine student progress and/or the need for revision. This is a terminal program; therefore, once all three courses are completed, the student must transition to employment.

The three courses in this program have been assigned course numbers in the SCNS (Statewide Course Numbering System) in accordance with Section 1007.24 (1), F.S. Career and Technical credit shall be awarded to the student on a transcript in accordance with Section 1001.44(3)(b), F.S.

The following table illustrates the postsecondary program structure:

OCP	Course Number	Course Title	Teacher Certification	Length	SOC Code
A	SLS0463	Specialized Career Education, Advanced 1	ANY CTE FIELD OR COVERAGE	150 hours	SOC applicable to related CTE program
	SLS0464	Specialized Career Education, Advanced 2		150 hours	
	SLS0944	Specialized Career Education Internship		150 hours	

The third course in this program is an internship course where the student must be working in his or her field of study.

## **Common Career Technical Core – Career Ready Practices**

Career Ready Practices describe the career-ready skills that educators should seek to develop in their students. These practices are not exclusive to a Career Pathway, program of study, discipline or level of education. Career Ready Practices should be taught and reinforced in all career exploration and preparation programs with increasingly higher levels of complexity and expectation as a student advances through a program of study.

1. Act as a responsible and contributing citizen and employee.
2. Apply appropriate academic and technical skills.
3. Attend to personal health and financial well-being.
4. Communicate clearly, effectively and with reason.
5. Consider the environmental, social and economic impacts of decisions.
6. Demonstrate creativity and innovation.
7. Employ valid and reliable research strategies.
8. Utilize critical thinking to make sense of problems and persevere in solving them.
9. Model integrity, ethical leadership and effective management.
10. Plan education and career path aligned to personal goals.
11. Use technology to enhance productivity.
12. Work productively in teams while using cultural/global competence.

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate self-advocacy and self-determination skills.
- 02.0 Explain job accommodations as they relate to the workplace.
- 03.0 Demonstrate communication skills necessary for successful employment.
- 04.0 Demonstrate employability skills.
- 05.0 Demonstrate a familiarity with information technology.
- 06.0 Demonstrate workplace safety practices.
- 07.0 Demonstrate mastery of selected standards and benchmarks from one or more job preparatory programs (not previously mastered).
- 08.0 Demonstrate an understanding of workplace organization.
- 09.0 Describe the roles within teams, work units, departments, organizations, and the larger environment.
- 10.0 Explain the impact of technology on occupations related to the field of study in which the student is enrolled.
- 11.0 Demonstrate positive human relations and leadership skills.
- 12.0 Explain the importance of health, safety, and environmental management systems in organizational performance and regulatory compliance.
- 13.0 Solve problems using critical thinking skills, creativity, and innovation.
- 14.0 Demonstrate mastery of selected standards and benchmarks from one or more job preparatory programs (not previously mastered).
- 15.0 Demonstrate employability skills.
- 16.0 Use information technology tools.
- 17.0 Practice quality performance.
- 18.0 Demonstrate leadership and teamwork skills needed to accomplish team goals and objectives.
- 19.0 Describe the importance of professional ethics and legal responsibilities.
- 20.0 Demonstrate skills acquired through On-the-Job-Training (OJT).
- 21.0 Demonstrate mastery of selected standards and benchmarks from one or more job preparatory programs (not previously mastered).



Florida Department of Education  
Student Performance Standards

Program Title: Specialized Career Education, Advanced  
Career Certificate Program Number: S990006

**Course Number: SLS0463**  
**Occupational Completion Point: A**  
**Specialized Career Education, Advanced 1 – 150 Hours – SOC Code N/A**

01.0	Demonstrate self-advocacy and self-determination skills. The student will be able to:
01.01	Identify and evaluate personal needs, interests, and goals.
01.02	Make plans based on personal and career choices.
01.03	Describe entrepreneurship opportunities as a career planning option.
01.04	Carry out plans and adjust to changing circumstances.
01.05	Communicate disability, needs, skills, and abilities.
01.06	Communicate legal rights as a person with a disability.
01.07	Analyze work space, method of communication with others, and tasks.
01.08	Define the term <i>disclosure</i> .
01.09	Explain why disclosing disability may or may not be appropriate.
01.10	Evaluate the advantages and disadvantages of disclosure.
01.11	Explain how disclosure provides legal protection against discrimination.
02.0	Explain job accommodations as they relate to the workplace. The student will be able to:
02.01	Define the term job accommodations.
02.02	Identify basic duties that an employee must be able to perform with or without reasonable accommodations.
02.03	Identify examples of tasks and the related accommodation(s) that might be needed by a person with a specific disability.
02.04	Describe who is responsible for identifying an appropriate accommodation and when to request it.

02.05	Describe an employee's options if an employer refuses to provide a reasonable accommodation.
03.0	Demonstrate communication skills necessary for successful employment. The student will be able to:
03.01	Describe the importance of the proper use of grammar, vocabulary, and diction.
03.02	Demonstrate the appropriate way to address people.
03.03	Identify appropriate conversation for work-related settings.
03.04	Describe listening, speaking, and nonverbal skills necessary to determine customer needs.
03.05	List professional vocabulary appropriate for the work environment.
03.06	Demonstrate the ability to communicate in a multicultural setting.
03.07	Identify and define commonly used customer service terms (e.g., complaints, internal and external customers).
03.08	Demonstrate the ability to listen to, follow, and provide directions.
03.09	Demonstrate the placing/receiving of telephone calls in a businesslike manner.
03.10	Demonstrate the ability to locate, understand, and interpret information from various sources (e.g., trade manuals, schedules, charts, diagrams, tables of contents, indexes, labels, Internet resources).
04.0	Demonstrate employability skills. The student will be able to:
04.01	Describe methods for handling illegal interview and application questions.
04.02	Discuss state and federal labor laws regulating the workplace (e.g., Child Labor Law, sexual harassment, EEOC, ADA, FMLA).
04.03	Identify positive work attitudes and behaviors (e.g., honesty, compassion, respect, responsibility, fairness, trustworthiness, caring).
04.04	Identify qualities typically required for promotion (e.g., productivity, dependability, responsibility).
04.05	Explain how to prepare for job separation and re-employment.
04.06	Write a job description that includes the responsibilities of an entry-level position.
04.07	Prepare a classified ad for an entry-level position.
04.08	Create a list of interview questions for an entry-level position.
04.09	Complete various employment forms (application, W-4, insurance forms).
04.10	Create a resume.

05.0	Demonstrate a familiarity with information technology. The student will be able to:
05.01	Select and use appropriate devices, services, and applications for telecommunications.
05.02	Utilize presentation software to communicate ideas to a group.
05.03	Demonstrate proper work-related Internet use and security.
05.04	Utilize word processing software to produce workplace documents.
05.05	Utilize spreadsheet software to create meaningful workplace records.
05.06	Utilize web browsers to access the World Wide Web and other computer resources.
05.07	Use different types of web search engines effectively to locate information.
06.0	Demonstrate workplace safety practices. The student will be able to:
06.01	Identify technology, tools, equipment, and supplies necessary for a specific work task.
06.02	Locate technology, tools, equipment, and supplies required to complete a specific task.
06.03	Explain why workers must follow instructions and act in a way to promote safety.
06.04	Demonstrate required safety procedures related to the chosen career.
07.0	Demonstrate mastery of selected standards and benchmarks from one or more job preparatory programs (not previously mastered). The student will be able to:
07.01	Demonstrate mastery of selected standards and benchmarks that are job specific and correspond to the chosen career.
Standards and benchmarks from one or more CTE programs must be included in this coursework. This may include Internship, Job Shadowing and/or OJT.	

**Course Number: SLS0464**  
**Occupational Completion Point: A**  
**Specialized Career Education, Advanced 2 – 150 Hours – SOC Code N/A**

08.0	Demonstrate an understanding of workplace organization. The student will be able to:
08.01	Identify his/her role in family, circle of friends, school, and other groups/committees.
08.02	Illustrate the hierarchy of a company.
08.03	Define vision and mission statements.
09.0	Describe the roles within teams, work units, departments, organizations, and the larger environment. The student will be able to:

09.01	Define teamwork.
09.02	Employ teamwork in working towards a common goal.
09.03	Analyze and explain how one's own actions impact the overall organization.
10.0	Explain the impact of technology on occupations related to the field of study in which the student is enrolled. The student will be able to:
10.01	Describe a specific company's policy for ensuring security and protection of computerized data.
10.02	Demonstrate uses of equipment to process information (e.g., 10-key, electronic cash register, OCR scanner, financial calculator, computer).
11.0	Demonstrate positive human relations and leadership skills. The student will be able to:
11.01	Identify and demonstrate positive personality traits.
11.02	Demonstrate interpersonal skills to appropriately express feelings, reactions, ideas, opinions, wants, and needs.
11.03	Define and practice compassion, fairness, honesty, integrity, perseverance, courtesy, respect, responsibility, self-discipline, and trustworthiness.
11.04	Role-play behaviors that will promote effective human relations.
12.0	Explain the importance of health, safety, and environmental management systems in organizational performance and regulatory compliance. The student will be able to:
12.01	Describe personal and jobsite safety rules and regulations that maintain safe and healthy work environments.
12.02	Explain emergency procedures to follow in response to workplace accidents.
12.03	Create a disaster and/or emergency response plan.
13.0	Solve problems using critical thinking skills, creativity, and innovation. The student will be able to:
13.01	Use critical thinking skills independently and in teams to solve problems and make decisions.
13.02	Demonstrate the use of critical thinking and interpersonal skills to resolve conflicts.
13.03	Identify and document workplace performance goals and monitor progress toward those goals.
13.04	Identify and gather information necessary for decision-making.
14.0	Demonstrate mastery of selected standards and benchmarks from one or more job preparatory programs (not previously mastered). The student will be able to:
14.01	Demonstrate mastery of selected standards and benchmarks that are job specific and correspond to the chosen career.
Standards and benchmarks from one or more CTE programs must be included in this coursework. This may include Internship, Job Shadowing and/or OJT.	

**Course Number: SLS0944**  
**Occupational Completion Point: A**  
**Specialized Career Education Internship – 150 Hours – SOC Code N/A**

15.0	Demonstrate employability skills. The student will be able to:
15.01	Identify and demonstrate positive work behaviors needed to be employable.
15.02	Develop a personal career plan that includes strategies to reach personal goals and objectives.
15.03	Review licensing, certification, and industry credentialing requirements of chosen career.
15.04	Maintain a career portfolio to document knowledge, skills, and experience.
15.05	Explore and compare employment opportunities that match career goals.
15.06	Identify and exhibit traits for retaining employment.
15.07	Identify opportunities and requirements for career advancement.
15.08	Explain the benefits of ongoing professional development.
16.0	Use information technology tools. The student will be able to:
16.01	Use personal information management (PIM) applications to increase workplace efficiency.
16.02	Use technological tools to expedite workflow (e.g., word processing, electronic calendar, email, Internet applications).
16.03	Use computer operations applications to manage and store information.
16.04	Use collaborative/groupware applications to facilitate group work.
17.0	Practice quality performance. The student will be able to:
17.01	Maintain an organized work area.
17.02	Use equipment, technology, and work strategies to improve workflow.
17.03	Carry out written and verbal directions accurately.
17.04	Complete work efficiently and effectively.
17.05	Adhere to worksite regulations and practices.
18.0	Demonstrate leadership and teamwork skills needed to accomplish team goals and objectives. The student will be able to:
18.01	Demonstrate leadership skills to accomplish goals and objectives.

18.02	Establish and maintain effective working relationships with others in order to accomplish objectives and tasks.
18.03	Conduct and participate in meetings to accomplish work tasks.
18.04	Demonstrate mentoring skills to inspire and teach others.
19.0	Describe the importance of professional ethics and legal responsibilities. The student will be able to:
19.01	Evaluate and justify decisions based on ethical reasoning.
19.02	Evaluate alternative responses to workplace situations based on ethical and legal responsibilities, and employer policies.
19.03	Identify and explain consequences of unethical or illegal behaviors in the workplace.
19.04	Explain written organizational policies and procedures.
20.0	Demonstrate skills acquired through On-the-Job-Training (OJT). The student will be able to:
20.01	Maintain a positive attitude towards a job.
20.02	Demonstrate appropriate job performance skills.
20.03	Maintain a level of productivity required by the job.
20.04	Use evaluations to improve performance.
20.05	Comply with employee rules, regulations, and procedures.
20.06	Apply effective communication appropriate to the job.
20.07	Apply problem solving strategies to real life situations.
21.0	Demonstrate mastery of selected standards and benchmarks from one or more job preparatory programs (not previously mastered). The student will be able to:
21.01	Demonstrate mastery of selected standards and benchmarks that are job specific and correspond to the chosen career.
Standards and benchmarks from one or more CTE programs must be included in this coursework. This may include Job Shadowing and/or OJT.	

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Special Notes**

Documentation of mastery of the student performance standards must be maintained. An Individualized Plan of Study (IPS) must be maintained for audit purposes.

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

CTSOs are the intercurricular career and technical student organization(s) providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered. A student should be encouraged to join the related CTSO.

### **Cooperative Training – OJT**

On-the-job training is appropriate but not required for this program. Whenever offered, the rules, guidelines, and requirements specified in the OJT framework apply.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities to meet individual needs and ensure equal access. Postsecondary students with disabilities must self-identify, present documentation, request accommodations if needed, and develop a plan with their counselor and/or instructors. Accommodations received in postsecondary education may differ from those received in secondary education. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Course Title:** Introduction to Agriculture, Food, & Natural Resources  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Agriculture, Food, and Natural Resources

**Secondary – Middle School**

Course Number	8021100
CIP Number	148021100M
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b>Course Structure</b> section.
CTSO	FFA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Agriculture, Food and Natural Resource career cluster. The content includes but is not limited to agricultural literacy, importance of agriculture, the role of science, math, reading, writing, geography, history, and technology in agriculture, plants and animals, and sources of consumer goods from agriculture. Reinforcement of academic skills occurs through classroom instruction and applied laboratory procedures.

Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters. Planned and Supervised Agricultural Experiences (SAE) must be provided through one or more of the following: (1) foundational career exploration, (2) directed laboratory experience, (3) project ownership/entrepreneurship, (4) cooperative education/internship, (5) School Based Enterprise, or (6) Service Learning.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.



The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8021100	Introduction to Agriculture, Food, & Natural Resources	AGRICULTUR 1 @2 EXP AG @4	Semester

## **Standards**

After successfully completing this course, the student will be able to perform the following:

- 01.0 Demonstrate an understanding of the Food Products & Processing Systems career pathway.
- 02.0 Demonstrate an understanding of the Plant Systems career pathway.
- 03.0 Demonstrate an understanding of the Animal Systems career pathway.
- 04.0 Demonstrate an understanding of the Power, Structure, and Technical Systems career pathway.
- 05.0 Demonstrate an understanding of the Natural Resource Systems career pathway.
- 06.0 Demonstrate an understanding of the Environmental Service Systems career pathway.
- 07.0 Demonstrate an understanding of the Agribusiness Systems career pathway.
- 08.0 Apply leadership and communication skills.
- 09.0 Describe how information technology is used in the Agriculture, Food & Natural Resources career cluster.
- 10.0 Use information technology tools.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Introduction to Agriculture, Food, & Natural Resources  
**Course Number:** 8021100  
**Course Length:** Semester

**Course Description:**

Beginning with a broad overview of the Agriculture, Food, and Natural Resources career cluster, students are introduced to the terminology, careers, history, required skills, and technologies associated with each pathway in the Agriculture, Food, and Natural Resources career cluster. Additionally, they will be provided with opportunities to acquire and demonstrate beginning leadership skills.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate an understanding of the Food Products & Processing Systems career pathway. The student will be able to:
01.01	Define and use proper terminology associated with the Food Products & Processing Systems career pathway.
01.02	Describe some of the careers available in the Food Products & Processing Systems career pathway.
01.03	Identify common characteristics of the careers in the Food Products & Processing Systems career pathway.
01.04	Research the history of the Food Products & Processing Systems career pathway and describe how the associated careers have evolved and impacted society.
01.05	Identify skills required to successfully enter any career in the Food Products & Processing Systems career pathway.
01.06	Describe technologies associated in careers within the Food Products & Processing Systems career pathway.
02.0	Demonstrate an understanding of the Plant Systems career pathway. The student will be able to:
02.01	Define and use proper terminology associated with the Plant Systems career pathway.
02.02	Describe some of the careers available in the Plant Systems career pathway.
02.03	Identify common characteristics of the careers in the Plant Systems career pathway.
02.04	Research the history of the Plant Systems career pathway and describe how the careers have evolved and impacted society.
02.05	Identify skills required to successfully enter any career in the Plant Systems career pathway.
02.06	Describe technologies associated in careers within the Plant Systems career pathway.

## CTE Standards and Benchmarks

03.0 Demonstrate an understanding of the Animal Systems career pathway. The student will be able to:

03.01 Define and use proper terminology associated with the Animal Systems career pathway.

03.02 Describe some of the careers available in the Animal Systems career pathway.

03.03 Identify common characteristics of the careers in the Animal Systems career pathway.

03.04 Research the history of the Animal Systems career pathway and describe how the careers have evolved and impacted society.

03.05 Identify skills required to successfully enter any career in the Animal Systems career pathway.

03.06 Describe technologies associated in careers within the Animal Systems career pathway.

04.0 Demonstrate an understanding of the Power, Structural and Technological Systems career pathway. The student will be able to:

04.01 Define and use proper terminology associated with the Power, Structural and Technological Systems career pathway.

04.02 Describe some of the careers available in the Power, Structural and Technological Systems career pathway.

04.03 Identify common characteristics of the careers in the Power, Structural and Technological Systems career pathway.

04.04 Research the history of the Power Structural and Technological Systems career pathway and describe how the careers have evolved and impacted society.

04.05 Identify skills required to successfully enter any career in the Power Structural and Technological Systems career pathway.

04.06 Describe technologies associated in careers within the Power Structural and Technological Systems career pathway.

05.0 Demonstrate an understanding of the Natural Resource Systems career pathway. The student will be able to:

05.01 Define and use proper terminology associated with the Natural Resource Systems career pathway.

05.02 Describe some of the careers available in the Natural Resource Systems career pathway.

05.03 Identify common characteristics of the careers in the Natural Resource Systems career pathway.

05.04 Research the history of the Natural Resource Systems career pathway and describe how the careers have evolved and impacted society.

05.05 Identify skills required to successfully enter any career in the Natural Resource Systems career pathway.

05.06 Describe technologies associated in careers within the Natural Resource Systems career pathway.

06.0 Demonstrate an understanding of the Environmental Service Systems career pathway. The student will be able to:

## CTE Standards and Benchmarks

06.01 Define and use proper terminology associated with the Environmental Service Systems career pathway.

06.02 Describe some of the careers available in the Environmental Service Systems career pathway.

06.03 Identify common characteristics of the careers in Environmental Service Systems career pathway.

06.04 Research the history of the Environmental Service Systems career pathway and describe how the careers have evolved and impacted society.

06.05 Identify skills required to successfully enter any career in the Environmental Service Systems career pathway.

06.06 Describe technologies associated in careers within the Environmental Service Systems career pathway.

07.0 Demonstrate an understanding of the Agribusiness Systems career pathway. The student will be able to:

07.01 Define and use proper terminology associated with the Agribusiness Systems career pathway.

07.02 Describe some of the careers available in the Agribusiness Systems career pathway.

07.03 Identify common characteristics of the careers in Environmental Service Systems career pathway.

07.04 Research the history of the Agribusiness Systems career pathway and describe how the careers have evolved and impacted society.

07.05 Identify skills required to successfully enter any career in the Agribusiness Systems career pathway.

07.06 Describe technologies associated in careers within the Agribusiness Systems career pathway.

08.0 Apply leadership and communication skills. The student will be able to:

08.01 Discuss the establishment and history of the FFA organization.

08.02 Identify the characteristics and responsibilities of organizational leaders.

08.03 Demonstrate parliamentary procedure skills during a meeting.

08.04 Participate on a committee which has an assigned task and report to the class.

08.05 Demonstrate effective communication skills through delivery of a speech, a slide presentation, or conducting a demonstration.

08.06 Use a computer to assist in the completion of project related to the Agriculture, Food, & Natural Resources career cluster.

09.0 Describe how information technology is used in the Agriculture, Food & Natural Resources career cluster. The student will be able to:

09.01 Identify information technology (IT) careers in the Agriculture, Food & Natural Resources career cluster, including the responsibilities, tasks and skills they require.

## CTE Standards and Benchmarks

09.02	Relate information technology project management concepts and terms to careers in the Agriculture, Food & Natural Resources career cluster.
09.03	Manage information technology components typically used in professions of the Agriculture, Food & Natural Resources career cluster.
09.04	Identify security-related ethical and legal IT issues faced by professionals in the Agriculture, Food & Natural Resources career cluster.
10.0	Use information technology tools. The student will be able to:
10.01	Identify the functions of web browsers, and use them to access the World Wide Web and other computer resources typically used in the Agriculture, Food & Natural Resources career cluster.
10.02	Use e-mail clients to send simple messages and files to other Internet users.
10.03	Demonstrate ways to communicate effectively using Internet technology.
10.04	Use different types of web search engines effectively to locate information relevant to the Agriculture, Food & Natural Resources career cluster.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

National FFA Organization (FFA) is the intercurricular career and technical student organization(s) providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.



Florida Department of Education  
Curriculum Framework

**Course Title:** Orientation to Career Clusters  
**Course Type:** Orientation/Exploratory

**Secondary – Middle School**

Course Number	8000400
CIP Number	1498999907
Grade Level	6 – 8
Standard Length	Semester
Teacher Certification	Refer to the <b>Course Structure</b> section.
CTSO	Any CTSO as appropriate

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the seventeen career clusters. This course is a compilation of modules for each of the seventeen career clusters and is designed to provide flexibility in course offerings. Any number of modules can be selected to comprise a course that meets the needs of the students.

The content includes, but is not limited to, the orientation of students to career pathways in the career and technical education field. Reinforcement of academic skills occurs through classroom instruction and applied laboratory procedures. This course is recommended for students in the sixth grade, but not required.

Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8000400	Orientation to Career Clusters	ANY FIELD	Semester

## **Standards**

After successfully completing this course, the student will be able to perform the following:

- 01.0 Identify Florida's seventeen career clusters.
- 02.0 Identify and explore careers in the Agriculture, Food & Natural Resources cluster.
- 03.0 Identify and explore careers in the Architecture & Construction cluster.
- 04.0 Identify and explore careers in the Arts, A/V Technology & Communication cluster.
- 05.0 Identify and explore careers in the Business Management & Administration cluster.
- 06.0 Identify and explore careers in the Education & Training cluster.
- 07.0 Identify and explore careers in the Energy cluster.
- 08.0 Identify and explore careers in the Finance cluster.
- 09.0 Identify and explore careers in the Government & Public Administration cluster.
- 10.0 Identify and explore careers in the Health Science cluster.
- 11.0 Identify and explore careers in the Hospitality and Tourism cluster.
- 12.0 Identify and explore careers in the Human Services cluster.
- 13.0 Identify and explore careers in the Information Technology cluster.
- 14.0 Identify and explore careers in the Law, Public Safety & Security cluster.
- 15.0 Identify and explore careers in the Manufacturing cluster.
- 16.0 Identify and explore careers in the Marketing, Sales & Service cluster.
- 17.0 Identify and explore careers in the Engineering and Technology Education cluster.
- 18.0 Identify and explore careers in the Transportation, Distribution & Logistics cluster.
- 19.0 Describe leadership skills.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Orientation to Career Clusters  
**Course Number:** 8000400  
**Course Credit:** Semester

**Course Description:**

This course is a broad overview of the seventeen career clusters offered in Florida. This course provides hands-on introductory activities for each career cluster as well as opportunities to acquire and demonstrate beginning leadership skills.

<b>CTE Standards and Benchmarks</b>	
01.0	Identify Florida’s seventeen career clusters. The student will be able to:
01.01	List Florida’s seventeen career clusters.
01.02	Research the national career clusters website
01.03	Identify the Career and Technical Student Organizations (CTSO) appropriate for Career and Technical Education (CTE) programs.
01.04	Explain the purpose of a CTSO.
02.0	Identify and explore careers in the Agriculture, Food & Natural Resources cluster. The student will be able to:
02.01	Identify the pathways in the Agriculture, Food & Natural Resources career cluster and the careers in each pathway.
02.02	Describe the types of places that employ individuals who have careers in the Agriculture, Food & Natural Resources career cluster.
02.03	Describe the variety of tasks performed by individuals who have careers in the Agriculture, Food & Natural Resources career cluster.
02.04	List the skills, abilities, and talents needed for careers in the Agriculture, Food & Natural Resources career cluster.
02.05	Identify the level of training and education required for careers in the Agriculture, Food & Natural Resources career cluster.
02.06	Research a career in the Agriculture, Food & Natural Resources career cluster and present findings to the class.
02.07	Apply math, science, and reading skills in the completion of a project or activity related to the Agriculture, Food & Natural Resources career cluster.
03.0	Identify and explore careers in the Architecture & Construction cluster. The student will be able to:
03.01	Identify the pathways in the Architecture & Construction career cluster and the careers in each pathway.

## CTE Standards and Benchmarks

03.02 Describe the types of places that employ individuals who have careers in the Architecture & Construction career cluster.

03.03 Describe the variety of tasks performed by individuals who have careers in the Architecture & Construction career cluster.

03.04 List the skills, abilities, and talents needed for careers in the Architecture & Construction career cluster.

03.05 Identify the level of training and education required for careers in the Architecture & Construction career cluster.

03.06 Research a career in the Architecture & Construction career cluster and present findings to the class.

03.07 Apply math, science, and reading skills in the completion of a project or activity related to the Architecture & Construction career cluster.

04.0 Identify and explore careers in the Arts, A/V Technology & Communication cluster. The student will be able to:

04.01 Identify the pathways in the Arts, A/V Technology & Communication career cluster and the careers in each pathway.

04.02 Describe the types of places that employ individuals who have careers in the Arts, A/V Technology & Communication career cluster.

04.03 Describe the variety of tasks performed by individuals who have careers in the Arts, A/V Technology & Communication career cluster.

04.04 List the skills, abilities, and talents needed for careers in the Arts, A/V Technology & Communication career cluster.

04.05 Identify the level of training and education required for careers in the Arts, A/V Technology & Communication career cluster.

04.06 Research a career in the Arts, A/V Technology & Communication career cluster and present findings to the class.

04.07 Apply math, science, and reading skills in the completion of a project or activity related to the Arts, A/V Technology & Communication career cluster.

05.0 Identify and explore careers in the Business, Management & Administration cluster. The student will be able to:

05.01 Identify the pathways in the Business, Management & Administration career cluster and the careers in each pathway.

05.02 Describe the types of places that employ individuals who have careers in the Business Management & Administration career cluster.

05.03 Describe the variety of tasks performed by individuals who have careers in the Business Management & Administration career cluster.

05.04 List the skills, abilities, and talents needed for careers in the Business Management & Administration career cluster.

05.05 Identify the level of training and education required for careers in the Business Management & Administration career cluster.

05.06 Research a career in the Business Management & Administration career cluster and present findings to the class.

05.07 Apply math, science, and reading skills in the completion of a project or activity related to the Business Management & Administration career cluster.

## CTE Standards and Benchmarks

06.0 Identify and explore careers in the Education & Training cluster. The student will be able to:

06.01 Identify the pathways in the Education & Training career cluster and the careers in each pathway.

06.02 Describe the types of places that employ individuals who have careers in the Education & Training career cluster.

06.03 Describe the variety of tasks performed by individuals who have careers in the Education & Training career cluster.

06.04 List the skills, abilities, and talents needed for careers in the Education & Training career cluster.

06.05 Identify the level of training and education required for careers in the Education & Training career cluster.

06.06 Research a career in the Education & Training career cluster and present findings to the class.

06.07 Apply math, science, and reading skills in the completion of a project or activity related to the Education & Training career cluster.

07.0 Identify and explore careers in the Energy cluster. The student will be able to:

07.01 Identify the pathways in the Energy career cluster and the careers in each pathway.

07.02 Describe the types of places that employ individuals who have careers in the Energy career cluster.

07.03 Describe the variety of tasks performed by individuals who have careers in the Energy career cluster.

07.04 List the skills, abilities, and talents needed for careers in the Energy career cluster.

07.05 Identify the level of training and education required for careers in the Energy career cluster.

07.06 Research a career in the Energy career cluster and present findings to the class.

07.07 Apply math, science, and reading skills in the completion of a project or activity related to the Energy career cluster.

08.0 Identify and explore careers in the Finance cluster. The student will be able to:

08.01 Identify the pathways in the Finance career cluster and the careers in each pathway.

08.02 Describe the types of places that employ individuals who have careers in the Finance career cluster.

08.03 Describe the variety of tasks performed by individuals who have careers in the Finance career cluster.

08.04 List the skills, abilities, and talents needed for careers in the Finance career cluster.

08.05 Identify the level of training and education required for careers in the Finance career cluster.

08.06 Research a career in the Finance career cluster and present findings to the class.

## CTE Standards and Benchmarks

08.07 Apply math, science, and reading skills in the completion of a project or activity related to the Finance career cluster.

09.0 Identify and explore careers in the Government & Public Administration cluster. The student will be able to:

09.01 Identify the pathways in the Government & Public Administration career cluster and the careers in each pathway.

09.02 Describe the types of places that employ individuals who have careers in the Government & Public Administration career cluster.

09.03 Describe the variety of tasks performed by individuals who have careers in the Government & Public Administration career cluster.

09.04 List the skills, abilities, and talents needed for careers in the Government & Public Administration career cluster.

09.05 Identify the level of training and education required for careers in the Government & Public Administration career cluster.

09.06 Research a career in the Government & Public Administration career cluster and present findings to the class.

09.07 Apply math, science, and reading skills in the completion of a project or activity related to the Government & Public Administration career cluster.

10.0 Identify and explore careers in the Health Science cluster. The student will be able to:

10.01 Identify the pathways in the Health Science career cluster and the careers in each pathway.

10.02 Describe the types of places that employ individuals who have careers in the Health Science career cluster.

10.03 Describe the variety of tasks performed by individuals who have careers in the Health Science career cluster.

10.04 List the skills, abilities, and talents needed for careers in the Health Science career cluster.

10.05 Identify the level of training and education required for careers in the Health Science career cluster.

10.06 Research a career in the Health Science career cluster and present findings to the class.

10.07 Apply math, science, and reading skills in the completion of a project or activity related to the Health Science career cluster.

11.0 Identify and explore careers in the Hospitality & Tourism cluster. The student will be able to:

11.01 Identify the pathways in the Hospitality & Tourism career cluster and the careers in each pathway.

11.02 Describe the types of places that employ individuals who have careers in the Hospitality & Tourism career cluster.

11.03 Describe the variety of tasks performed by individuals who have careers in the Hospitality & Tourism career cluster.

11.04 List the skills, abilities, and talents needed for careers in the Hospitality & Tourism career cluster.

11.05 Identify the level of training and education required for careers in the Hospitality & Tourism career cluster.

## CTE Standards and Benchmarks

11.06 Research a career in the Hospitality & Tourism career cluster and present findings to the class.

11.07 Apply math, science, and reading skills in the completion of a project or activity related to the Hospitality & Tourism career cluster.

12.0 Identify and explore careers in the Human Services cluster. The student will be able to:

12.01 Identify the pathways in the Human Services career cluster and the careers in each pathway.

12.02 Describe the types of places that employ individuals who have careers in the Human Services career cluster.

12.03 Describe the variety of tasks performed by individuals who have careers in the Human Services career cluster.

12.04 List the skills, abilities, and talents needed for careers in the Human Services career cluster.

12.05 Identify the level of training and education required for careers in the Human Services career cluster.

12.06 Research a career in the Human Services career cluster and present findings to the class.

12.07 Apply math, science, and reading skills in the completion of a project or activity related to the Human Services career cluster.

13.0 Identify and explore careers in the Information Technology cluster. The student will be able to:

13.01 Identify the pathways in the Information Technology career cluster and the careers in each pathway.

13.02 Describe the types of places that employ individuals who have careers in the Information Technology career cluster.

13.03 Describe the variety of tasks performed by individuals who have careers in the Information Technology career cluster.

13.04 List the skills, abilities, and talents needed for careers in the Information Technology career cluster.

13.05 Identify the level of training and education required for careers in the Information Technology career cluster.

13.06 Research a career in the Information Technology career cluster and present findings to the class.

13.07 Apply math, science, and reading skills in the completion of a project or activity related to the Information Technology career cluster.

14.0 Identify and explore careers in the Law, Public Safety & Security cluster. The student will be able to:

14.01 Identify the pathways in the Law, Public Safety & Security career cluster and the careers in each pathway.

14.02 Describe the types of places that employ individuals who have careers in the Law, Public Safety & Security career cluster.

14.03 Describe the variety of tasks performed by individuals who have careers in the Law, Public Safety & Security career cluster.

14.04 List the skills, abilities, and talents needed for careers in the Law, Public Safety & Security career cluster.



## CTE Standards and Benchmarks

14.05 Identify the level of training and education required for careers in the Law, Public Safety & Security career cluster.

14.06 Research a career in the Law, Public Safety & Security career cluster and present findings to the class.

14.07 Apply math, science, and reading skills in the completion of a project or activity related to the Law, Public Safety & Security career cluster.

15.0 Identify and explore careers in the Manufacturing cluster. The student will be able to:

15.01 Identify the pathways in the Manufacturing career cluster and the careers in each pathway.

15.02 Describe the types of places that employ individuals who have careers in the Manufacturing career cluster.

15.03 Describe the variety of tasks performed by individuals who have careers in the Manufacturing career cluster.

15.04 List the skills, abilities, and talents needed for careers in the Manufacturing career cluster.

15.05 Identify the level of training and education required for careers in the Manufacturing career cluster.

15.06 Research a career in the Manufacturing career cluster and present findings to the class.

15.07 Apply math, science, and reading skills in the completion of a project or activity related to the Manufacturing career cluster.

16.0 Identify and explore careers in the Marketing, Sales & Service cluster. The student will be able to:

16.01 Identify the pathways in the Marketing, Sales & Service career cluster and the careers in each pathway.

16.02 Describe the types of places that employ individuals who have careers in the Marketing, Sales & Service career cluster.

16.03 Describe the variety of tasks performed by individuals who have careers in the Marketing, Sales & Service career cluster.

16.04 List the skills, abilities, and talents needed for careers in the Marketing, Sales & Service career cluster.

16.05 Identify the level of training and education required for careers in the Marketing, Sales & Service career cluster.

16.06 Research a career in the Marketing, Sales & Service career cluster and present findings to the class.

16.07 Apply math, science, and reading skills in the completion of a project or activity related to the Marketing, Sales & Service career cluster.

17.0 Identify and explore careers in Engineering and Technology Education. The student will be able to:

17.01 Identify the pathways in Engineering and Technology Education.

17.02 Describe the types of places that employ individuals who have careers in Engineering and Technology Education.

17.03 Describe the variety of tasks performed by individuals who have careers in Engineering and Technology Education.

## CTE Standards and Benchmarks

17.04 List the skills, abilities, and talents needed for careers in Engineering and Technology Education.

17.05 Identify the level of training and education required for careers in Engineering and Technology Education.

17.06 Research a career in Engineering and Technology Education and present findings to the class.

17.07 Apply math, science, and reading skills in the completion of a project or activity related to the Engineering and Technology Education.

18.0 Identify and explore careers in the Transportation & Logistics cluster. The student will be able to:

18.01 Identify the pathways in the Transportation & Logistics career cluster and the careers in each pathway.

18.02 Describe the types of places that employ individuals who have careers in the Transportation & Logistics career cluster.

18.03 Describe the variety of tasks performed by individuals who have careers in the Transportation & Logistics career cluster.

18.04 List the skills, abilities, and talents needed for careers in the Transportation & Logistics career cluster.

18.05 Identify the level of training and education required for careers in the Transportation & Logistics career cluster.

18.06 Research a career in the Transportation & Logistics career cluster and present findings to the class.

18.07 Apply math, science, and reading skills in the completion of a project or activity related to the Transportation & Logistics career cluster.

19.0 Describe leadership skills. The student will be able to:

19.01 Identify the Career and Technical Student Organization(s) that are appropriate for CTE programs in each of the career clusters.

19.02 Describe the leadership opportunities available to members of the CTSOs identified above.

19.03 Investigate the CTSOs at your school and/or in your school district (e.g., membership requirements, dues, activities, events).

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

Refer to for additional information and resources.

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student. Access MyCareerShines by visiting:

### **Career and Technical Student Organization (CTSO)**

The Florida Technology Student Association (FL-TSA) is the intercurricular career and technical student organization for providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Postsecondary students with disabilities must self-identify, present documentation, request accommodations if needed, and develop a plan with their counselor and/or instructors. Accommodations received in postsecondary education may differ from those received in secondary education. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional

methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Course Title:** Introduction to Agriculture, Food, & Natural Resources and Career Planning  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Agriculture, Food, and Natural Resources

**Secondary – Middle School**

Course Number	8021110
CIP Number	148021100M
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	FFA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Agriculture, Food and Natural Resource career cluster. The content includes but is not limited to agricultural literacy, importance of agriculture, the role of science, math, reading, writing, geography, history, and technology in agriculture, plants and animals, and sources of consumer goods from agriculture. Reinforcement of academic skills occurs through classroom instruction and applied laboratory procedures.

Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters. Planned and Supervised Agricultural Experiences (SAE) must be provided through one or more of the following: (1) foundational career exploration, (2) directed laboratory experience, (3) project ownership/entrepreneurship, (4) cooperative education/internship, (5) School Based Enterprise, or (6) Service Learning.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8021110	Introduction to Agriculture, Food, & Natural Resources and Career Planning	AGRICULTUR 1 @2 EXP AG @4	Semester

## **Standards**

After successfully completing this course, the student will be able to perform the following:

- 01.0 Demonstrate an understanding of the Food Products & Processing Systems career pathway.
- 02.0 Demonstrate an understanding of the Plant Systems career pathway.
- 03.0 Demonstrate an understanding of the Animal Systems career pathway.
- 04.0 Demonstrate an understanding of the Power, Structure, and Technical Systems career pathway.
- 05.0 Demonstrate an understanding of the Natural Resource Systems career pathway.
- 06.0 Demonstrate an understanding of the Environmental Service Systems career pathway.
- 07.0 Demonstrate an understanding of the Agribusiness Systems career pathway.
- 08.0 Apply leadership and communication skills.
- 09.0 Describe how information technology is used in the Agriculture, Food & Natural Resources career cluster.
- 10.0 Use information technology tools.

Listed below are the eight career and education planning course standards.

- 11.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.
- 12.0 Develop skills to locate, evaluate, and interpret career information.
- 13.0 Identify and demonstrate processes for making short and long term goals.
- 14.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
- 15.0 Understand the relationship between educational achievement and career choices/postsecondary options.
- 16.0 Identify a career cluster and related pathways through an interest assessment that match career and education goals.
- 17.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
- 18.0 Demonstrate knowledge of technology and its application in career fields/clusters.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Introduction to Agriculture, Food, & Natural Resources and Career Planning  
**Course Number:** 8021110  
**Course Length:** Semester

**Course Description:**

Beginning with a broad overview of the Agriculture, Food, and Natural Resources career cluster, students are introduced to the terminology, careers, history, required skills, and technologies associated with each pathway in the Agriculture, Food, and Natural Resources career cluster. Additionally, they will be provided with opportunities to acquire and demonstrate beginning leadership skills.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate an understanding of the Food Products & Processing Systems career pathway. The student will be able to:
01.01	Define and use proper terminology associated with the Food Products & Processing Systems career pathway.
01.02	Describe some of the careers available in the Food Products & Processing Systems career pathway.
01.03	Identify common characteristics of the careers in the Food Products & Processing Systems career pathway.
01.04	Research the history of the Food Products & Processing Systems career pathway and describe how the associated careers have evolved and impacted society.
01.05	Identify skills required to successfully enter any career in the Food Products & Processing Systems career pathway.
01.06	Describe technologies associated in careers within the Food Products & Processing Systems career pathway.
02.0	Demonstrate an understanding of the Plant Systems career pathway. The student will be able to:
02.01	Define and use proper terminology associated with the Plant Systems career pathway.
02.02	Describe some of the careers available in the Plant Systems career pathway.
02.03	Identify common characteristics of the careers in the Plant Systems career pathway.
02.04	Research the history of the Plant Systems career pathway and describe how the careers have evolved and impacted society.
02.05	Identify skills required to successfully enter any career in the Plant Systems career pathway.
02.06	Describe technologies associated in careers within the Plant Systems career pathway.



## CTE Standards and Benchmarks

03.0 Demonstrate an understanding of the Animal Systems career pathway. The student will be able to:

03.01 Define and use proper terminology associated with the Animal Systems career pathway.

03.02 Describe some of the careers available in the Animal Systems career pathway.

03.03 Identify common characteristics of the careers in the Animal Systems career pathway.

03.04 Research the history of the Animal Systems career pathway and describe how the careers have evolved and impacted society.

03.05 Identify skills required to successfully enter any career in the Animal Systems career pathway.

03.06 Describe technologies associated in careers within the Animal Systems career pathway.

04.0 Demonstrate an understanding of the Power, Structural and Technological Systems career pathway. The student will be able to:

04.01 Define and use proper terminology associated with the Power, Structural and Technological Systems career pathway.

04.02 Describe some of the careers available in the Power, Structural and Technological Systems career pathway.

04.03 Identify common characteristics of the careers in the Power, Structural and Technological Systems career pathway.

04.04 Research the history of the Power, Structural and Technological Systems career pathway and describe how the careers have evolved and impacted society.

04.05 Identify skills required to successfully enter any career in the Power, Structural and Technological Systems career pathway.

04.06 Describe technologies associated in careers within the Power, Structural, and Technological Systems career pathway.

05.0 Demonstrate an understanding of the Natural Resource Systems career pathway. The student will be able to:

05.01 Define and use proper terminology associated with the Natural Resource Systems career pathway.

05.02 Describe some of the careers available in the Natural Resource Systems career pathway.

05.03 Identify common characteristics of the careers in the Natural Resource Systems career pathway.

05.04 Research the history of the Natural Resource Systems career pathway and describe how the careers have evolved and impacted society.

05.05 Identify skills required to successfully enter any career in the Natural Resource Systems career pathway.

05.06 Describe technologies associated in careers within the Natural Resource Systems career pathway.

06.0 Demonstrate an understanding of the Environmental Service Systems career pathway. The student will be able to:

## CTE Standards and Benchmarks

06.01 Define and use proper terminology associated with the Environmental Service Systems career pathway.

06.02 Describe some of the careers available in the Environmental Service Systems career pathway.

06.03 Identify common characteristics of the careers in Environmental Service Systems career pathway.

06.04 Research the history of the Environmental Service Systems career pathway and describe how the careers have evolved and impacted society.

06.05 Identify skills required to successfully enter any career in the Environmental Service Systems career pathway.

06.06 Describe technologies associated in careers within the Environmental Service Systems career pathway.

07.0 Demonstrate an understanding of the Agribusiness Systems career pathway. The student will be able to:

07.01 Define and use proper terminology associated with the Agribusiness Systems career pathway.

07.02 Describe some of the careers available in the Agribusiness Systems career pathway.

07.03 Identify common characteristics of the careers in Environmental Service Systems career pathway.

07.04 Research the history of the Agribusiness Systems career pathway and describe how the careers have evolved and impacted society.

07.05 Identify skills required to successfully enter any career in the Agribusiness Systems career pathway.

07.06 Describe technologies associated in careers within the Agribusiness Systems career pathway.

08.0 Apply leadership and communication skills. The student will be able to:

08.01 Discuss the establishment and history of the FFA organization.

08.02 Identify the characteristics and responsibilities of organizational leaders.

08.03 Demonstrate parliamentary procedure skills during a meeting.

08.04 Participate on a committee which has an assigned task and report to the class.

08.05 Demonstrate effective communication skills through delivery of a speech, a slide presentation, or conducting a demonstration.

08.06 Use a computer to assist in the completion of project related to the Agriculture, Food, & Natural Resources career cluster.

08.07 Describe the diversity of career opportunities in agriculture and its related fields through a Foundational SAE.

09.0 Describe how information technology is used in the Agriculture, Food & Natural Resources career cluster. The student will be able to:

## CTE Standards and Benchmarks

09.01 Identify information technology (IT) careers in the Agriculture, Food & Natural Resources career cluster, including the responsibilities, tasks and skills they require.

09.02 Relate information technology project management concepts and terms to careers in the Agriculture, Food & Natural Resources career cluster.

09.03 Manage information technology components typically used in professions of the Agriculture, Food & Natural Resources career cluster.

09.04 Identify security-related ethical and legal IT issues faced by professionals in the Agriculture, Food & Natural Resources career cluster.

10.0 Use information technology tools. The student will be able to:

10.01 Identify the functions of web browsers, and use them to access the World Wide Web and other computer resources typically used in the Agriculture, Food & Natural Resources career cluster.

10.02 Use e-mail clients to send simple messages and files to other Internet users.

10.03 Demonstrate ways to communicate effectively using Internet technology.

10.04 Use different types of web search engines effectively to locate information relevant to the Agriculture, Food & Natural Resources career cluster.

### **Listed below are the eight career and education planning course standards:**

The student will be able to:

11.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.

12.0 Develop skills to locate, evaluate, and interpret career information.

13.0 Identify and demonstrate processes for making short and long term goals.

14.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.

15.0 Understand the relationship between educational achievement and career choices/postsecondary options.

16.0 Identify a career cluster and related pathways that match career and education goals.

17.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.

18.0 Demonstrate knowledge of technology and its application in career fields/clusters.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition at.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career Planning**

**Effective July 1, 2019, per Section 1003.4156, Florida Statutes (F.S.), for students to meet middle grades promotion requirements, a Career and Education Planning course must be completed in either sixth, seventh, or eighth grade.** These courses should be taught integrating the eight career and education planning course standards. The MyCareerShines powered by Kuder® career planning system is available free of charge to all Florida middle and high schools to assist students in completing research-based career assessments, exploring career options and developing an online academic and career plan.

### **Career and Technical Student Organization (CTSO)**

National FFA Organization (FFA) is the intercurricular career and technical student organization(s) providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

## **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Course Title:** Fundamentals of Agriculture, Food, and Natural Resource Systems  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Agriculture, Food, and Natural Resources

**Secondary – Middle School**

Course Number	8021300
CIP Number	148021300M
Grade Level	6-8
Standard Length	year
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	FFA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Agriculture, Food and Natural Resource career cluster. The content includes but is not limited to agricultural literacy, importance of agriculture, the role of science, math, reading, writing, geography, history, and technology in agriculture, plants and animals, and sources of consumer goods from agriculture. Reinforcement of academic skills occurs through classroom instruction and applied laboratory procedures.

Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Course Structure**

The length of this course is one year. Planned and Supervised Agricultural Experiences (SAE) must be provided through one or more of the following: (1) foundational career exploration, (2) directed laboratory experience, (3) project ownership/entrepreneurship, (4) cooperative education/internship, (5) School Based Enterprise, or (6) Service Learning.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8021300	Fundamentals of Agriculture, Food, and Natural Resource Systems	AGRICULTUR 1 @2 EXP AG @4	year

## **Standards**

After successfully completing this course, the student will be able to perform the following:

- 01.0 Summarize the evolution of production agriculture.
- 02.0 Differentiate between animal welfare and ethical treatment of animals
- 03.0 Explain skills and principles used in dairy production.
- 04.0 Explain skills and principles used in livestock production.
- 05.0 Explain skills and principles used in poultry production.
- 06.0 Explain skills and principles used in aquaculture production
- 07.0 Explain skills and principles used in vegetable production.
- 08.0 Investigate and demonstrate skills and principles used in nursery production.
- 09.0 Apply scientific and technical skills in production agriculture.
- 10.0 Manage leadership and communication skills
- 11.0 Examine good work habits, and career planning in agriculture production.
- 12.0 Integrate the use of science, mathematics, reading, geography, history, writing, and communication in production agriculture.
- 13.0 Identify components of network systems.
- 14.0 Describe and use communication features of information technology.



**Florida Department of Education  
Student Performance Standards**

**Course Title:** Fundamentals of Agriculture, Food, and Natural Resource Systems  
**Course Number:** 8021300  
**Course Length:** Semester

**Course Description:**

The next series in the world of the Agriculture, Food, and Natural Resources career cluster, students will be engaged in activities with terminology, careers, history, required skills, and technologies associated with each pathway in the Agriculture, Food, and Natural Resources career cluster. Additionally, they will be provided with opportunities to acquire and demonstrate beginning leadership skills.

<b>CTE Standards and Benchmarks</b>	
01.0	Summarize the evolution of production agriculture. The student will be able to:
01.01	Describe the importance of agriculture on a world, national, state and community scale.
01.02	Distinguish the major agricultural production areas of the United States.
01.03	Distinguish agriculture products produced in Florida.
01.04	Interpret how changes in production practices, population, and land use have influenced the agriculture economy.
01.05	Demonstrate how development of new technology has affected agriculture production.
01.06	Examine the changes in agriculture careers that reflect the changes in production methods.
02.0	Differentiate between animal welfare and ethical treatment of animals. The student will be able to:
02.01	Describe the proper handling of production animals.
02.02	Compare animal welfare and animal rights.
02.03	Explain how animal welfare and animal rights advocate groups impact production agriculture.
02.04	Summarize animal cruelty and the consequences of cruel treatment of animals.
03.0	Explain skills and principles used in dairy production. The student will be able to:
03.01	Explain the difference between breeds of dairy cattle.

## CTE Standards and Benchmarks

03.02 Demonstrate knowledge of proper health and nutrition for dairy animals.

03.03 Explain the safety procedures used for dairy products.

03.04 Compare different styles of dairies and milking parlors.

03.05 Identify the varieties of dairy products and the methods of processing.

03.06 Create a dairy product.

04.0 Explain skills and principles used in livestock production. The student will be able to:

04.01 Compare the different breeds of livestock.

04.02 Differentiate the different cuts and grading of meat.

04.03 Evaluate proper health and nutrition for livestock animals.

04.04 Demonstrate knowledge of terminology for animals based on species and condition (eg. age, sex, bred, etc...)

04.05 Determine different reproduction methods, and the process of selective breeding.

04.06 Explain how the use of biotechnology has impacted the livestock industry.

05.0 Explain skills and principles used in poultry production. The student will be able to:

05.01 Compare different types of poultry and their uses in production agriculture.

05.02 Differentiate proper techniques for classification and grading of poultry and poultry products.

05.03 Describe proper safe handling techniques for poultry products.

05.04 Evaluate knowledge of health and nutrition for poultry.

05.05 Explain how the use of biotechnology has impacted the poultry industry.

06.0 Explain skills and principles used in aquaculture production. The student will be able to:

06.01 Compare the different breeds of aquatic species.

06.02 Evaluate proper health and nutrition for aquatic species.

06.03 Demonstrate knowledge of terminology for aquatic species.

## CTE Standards and Benchmarks

06.04 Determine different reproduction methods.

06.05 Explain how the use of biotechnology has impacted the aquatic species industry.

07.0 Explain skills and principles used in vegetable production. The student will be able to:

07.01 Produce a vegetable crop.

07.02 Compare the components of soil.

07.03 Perform a soil test.

07.04 Describe how climate can affect crop production.

07.05 Compile knowledge of growing seasons for a geographic region.

07.06 Explain the use of Best Management Practices in crop production.

07.07 Investigate the impact of pests on crop yields.

07.08 Model the safety precautions on a pesticide and fertilizer label.

07.09 Assess proper irrigation methods for crops.

07.10 Analyze knowledge of harvesting techniques and equipment

07.11 Compare types of storage facilities.

07.12 Explain how the use of biotechnology has impacted vegetable crop production.

08.0 Explain skills and principles used in nursery production. The student will be able to:

08.01 Perform plant propagation.

08.02 Develop a growing schedule for nursery plants.

08.03 Model methods for Integrated Pest Management.

08.04 Compare types of growing media.

08.05 Identify nutrients necessary for plant growth from the periodic table and their functions.

08.06 Identify plants based on common and scientific names.

## CTE Standards and Benchmarks

08.07 Describe principles for plant growth.

08.08 Explain different methods of irrigation.

08.09 Explain how the use of biotechnology has impacted plant production.

09.0 Apply scientific and technical skills in production agriculture. The student will be able to:

09.01 Formulate scientifically investigable questions, construct investigations, collect and evaluate data, and develop scientific recommendations based on findings.

09.02 Employ technological tools to expedite workflow including word processing, databases, reports, spreadsheets, multimedia presentations, electronic calendar, contacts, email, and internet applications

10.0 Manage leadership and communication skills. The student will be able to:

10.01 Discuss the establishment and history of the FFA organization.

10.02 Compare the characteristics and responsibilities of organizational leaders.

10.03 Demonstrate parliamentary procedure skills during a meeting.

10.04 Participate on a committee which has an assigned task and report to the class.

10.05 Demonstrate effective communication skills through delivery of a speech or conducting a demonstration.

10.06 Use a computer to assist in the completion of an agricultural project.

11.0 Demonstrate good work habits, and career planning in agriculture production. The student will be able to:

11.01 Identify attitudes and habits necessary to achieve career success.

11.02 Describe personality aspects to consider when choosing a career.

11.03 Identify the basic steps in career planning.

11.04 Identify and research career opportunities in agriculture and its related fields through a Foundational SAE.

12.0 Integrate the use of science, mathematics, reading, geography, history, writing, and communication in production agriculture. The student will be able to:

12.01 Apply basic mathematics operations to solve agricultural problems.

12.02 Correctly use measuring devices and utilize measurements to solve agricultural problems.

12.03 Prepare written and/or oral materials using correct English grammar.

## CTE Standards and Benchmarks

12.04 Identify the main idea in oral presentations and/or written materials.

12.05 Locates, organizes, and interprets information from a variety of agricultural sources.

12.06 Describe the historical evolution of agriculture.

12.07 Select and study a problem that can be tested under controlled conditions to establish a hypothesis or to illustrate a known law.

13.0 Identify components of network systems. The student will be able to:

13.01 Identify structure to access internet, including hardware and software components.

13.02 Identify and configure user customization features in web browsers, including preferences, caching, and cookies.

13.03 Recognize essential database concepts.

13.04 Define and use additional networking and internet services.

14.0 Describe and use communication features of information technology. The student will be able to:

14.01 Define important internet communications protocols and their roles in delivering basic Internet services.

14.02 Identify basic principles of the Domain Name System (DNS).

14.03 Identify security issues related to Internet clients.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Extended Student Supervision**

Because of the production and marketing cycle of the agriculture industry, this program requires individual instruction and supervision of students for the entire period beyond the 180-day school year.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student..

### **Career and Technical Student Organization (CTSO)**

National FFA Organization (FFA) is the intercurricular career and technical student organization(s) providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access.

Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Course Title:** Fundamentals of Agriculture, Food, and Natural Resource Services  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Agriculture, Food, and Natural Resources

**Secondary – Middle School**

Course Number	8021400
CIP Number	148021300M
Grade Level	6-8
Standard Length	year
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	FFA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Agriculture, Food and Natural Resource career cluster. The content includes but is not limited to agricultural literacy, importance of agriculture, the role of science, math, reading, writing, geography, history, and technology in agriculture, plants and animals, and sources of consumer goods from agriculture. Reinforcement of academic skills occurs through classroom instruction and applied laboratory procedures.

Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Course Structure**

The length of this course is one year. Planned and Supervised Agricultural Experiences (SAE) must be provided through one or more of the following: (1) foundational career exploration, (2) directed laboratory experience, (3) project ownership/entrepreneurship, (4) cooperative education/internship, (5) School Based Enterprise, or (6) Service Learning.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:



Course Number	Course Title	Teacher Certification	Length
8021400	Fundamentals of Agriculture, Food, and Natural Resource Services	Agriculture 1 @2 EXP AG @4	year

## **Standards**

After successfully completing this course, the student will be able to perform the following:

- 01.0 Identify components of agribusiness.
- 02.0 Recommend appropriate agriculture communications concepts
- 03.0 Summarize skills used in landscape services.
- 04.0 Incorporate knowledge and skills involved with food science.
- 05.0 Construct a floral design.
- 06.0 Communicate skills gained from small, companion animal care.
- 07.0 Recommend leadership and communication styles.
- 08.0 Integrate the use of science, mathematics, reading, geography, history, writing, and communication in agriscience and technology.
- 09.0 Recognize the value of responsibility, good work habits, and planning for career opportunities in agriculture services.
- 10.0 Identify components of network systems
- 11.0 Describe and use communication features of information technology

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Fundamentals of Agriculture, Food and Natural Resource Services  
**Course Number:** 8021400  
**Course Length:** 1 Year

**Course Description:**

This course is designed to develop competencies in the area of agriculture services. This includes: the global impact of agribusiness, communications, landscaping, food science, floral design, companion animal care, as well leadership skills. Laboratory-based activities are an integral part of this course. These include safe use and application of appropriate technology, scientific testing and observation equipment.

<b>CTE Standards and Benchmarks</b>	
01.0	Identify components of agribusiness. The student will be able to:
01.01	Describe the business cycle.
01.02	Complete a profit/loss statement.
01.03	Distinguish between types of competition practices.
01.04	Demonstrate proper methods of recording merchandise.
01.05	Summarize proper use of customer service skills.
01.06	Explain proper management techniques.
02.0	Recommend appropriate agriculture communications concepts. The student will be able to :
02.01	Sort and classify types of communication used in Agriculture.
02.02	Create messages using various forms of communication.
02.03	Generate a speech.
02.04	Compare and contrast different types of media.
02.05	Create a photo story.
02.06	Demonstrate proper ethics in communication.

## CTE Standards and Benchmarks

02.07 Identify and compare regulating agencies.

02.08 Evaluate careers in agriculture communications.

03.0 Summarize skills used in landscape services. The student will be able to:

03.01 Distinguish plants based on common and scientific name.

03.02 Conduct a soil test.

03.03 Construct an irrigation system.

03.04 Compare and contrast landscape styles.

03.05 Select plants based on environmental factors.

03.06 Design a landscape.

03.07 Model personal safety and knowledge of equipment.

03.08 Explain proper procedures for applying pesticides and fertilizer based on Best Management practices.

03.09 Inventory an ecosystem.

03.10 Apply knowledge of invasive plants.

03.11 Apply knowledge of customer interactions

04.0 Incorporate knowledge and skills involved with food science. The student will be able to:

04.01 Explain the process from farm to consumer

04.02 Investigate safe food handling practices, and their regulating agencies

04.03 Document changes in food preservation and how it impacted our civilization

04.04 Recognize food processing and packaging procedures.

04.05 Explain how to develop and market a food product.

04.06 Describe the components of a nutrition label

04.07 Create and market a food product.

## CTE Standards and Benchmarks

05.0 Construct a floral design. The student will be able to:

05.01 Compare and contrast historical and cultural contributions to design.

05.02 Identify types of arrangements and products.

05.03 Demonstrate knowledge of floral pricing.

05.04 Verify flowers by common and scientific name.

05.05 Assemble a floral arrangement.

05.06 Summarize knowledge of inventory skills.

05.07 Develop a marketing plan.

06.0 Communicate skills gained from small, companion animal care. The student will be able to:

06.01 Demonstrate knowledge of proper nutrition and health in small and companion animals.

06.02 Differentiate between animal welfare and animal rights.

06.03 Describe the training process for service animals

06.04 Compare and contrast career opportunities available for companion animals based on animal type and breed.

06.05 Explain proper care for a small animal.

07.0 Recommend leadership and communication styles. The student will be able to:

07.01 Explore the establishment and history of the FFA organization.

07.02 Analyze the characteristics and responsibilities of organizational leaders.

07.03 Demonstrate parliamentary procedure skills during a meeting.

07.04 Evaluate a committee which has an assigned task and report to the class.

07.05 Demonstrate effective communication skills through delivery of a speech or conducting a demonstration.

07.06 Use a computer to assist in the completion of an agricultural project.

08.0 Integrate the use of science, mathematics, reading, geography, history, writing, and communication in agriscience and technology. The student will be able to:

## CTE Standards and Benchmarks

08.01 Apply basic mathematics operations to solve agricultural problems.

08.02 Correctly use measuring devices and utilize measurements to solve agricultural problems.

08.03 Apply the scientific method to solve an agricultural problem.

08.04 Prepare written and/or oral materials using correct English grammar.

08.05 Identify the main idea in oral presentations and/or written materials.

08.06 Locates, organizes, and interprets information from a variety of agricultural sources.

08.07 Describe the historical evolution of agriculture.

09.0 Recognize the value of responsibility, good work habits, and planning for career opportunities in agriculture services. The student will be able to:

09.01 Identify attitudes and habits necessary to achieve career success.

09.02 Describe personality aspects to consider when choosing a career.

09.03 Identify the basic steps in career planning.

09.04 Develop basic career plan.

09.05 Identify and research career opportunities in agriculture and its related fields through a Foundational SAE.

10.0 Identify components of network systems. The student will be able to:

10.01 Identify structure to access internet, including hardware and software components.

10.02 Identify and configure user customization features in web browsers, including preferences, caching, and cookies.

10.03 Recognize essential database concepts.

10.04 Define and use additional networking and internet services.

11.0 Describe and use communication features of information technology. The student will be able to:

11.01 Define important internet communications protocols and their roles in delivering basic Internet services.

11.02 Identify basic principles of the Domain Name System (DNS).

11.03 Identify security issues related to Internet clients.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

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### **Extended Student Supervision**

Because of the production and marketing cycle of the agriculture industry, this program requires individual instruction and supervision of students for the entire period beyond the 180-day school year.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

National FFA Organization (FFA) is the intercurricular career and technical student organization(s) providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access.

Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.



Florida Department of Education  
Curriculum Framework

Course Title: Orientation to Agriscience and Career Planning  
 Course Type: Orientation/Exploratory  
 Career Cluster: Agriculture, Food and Natural Resources

**Secondary – Middle School**

Course Number	8100110
CIP Number	01019910OR
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b>Course Structure</b> section.
CTSO	FFA

**Purpose**

This course provides an overview of agriculture, and will help students to be educated about their food supply. The content includes but is not limited to agricultural literacy, importance of agriculture, the role of science, math, reading, writing, geography, history, and technology in agriculture, plants and animals, and sources of consumer goods from agriculture. Reinforcement of academic skills occurs through classroom instruction and applied laboratory procedures. Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

Student will learn a basic understanding of agriculture with focuses on plants, animals, and natural resources. Students will also learn about our food system and the safety procedures in agriculture systems.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters. Planned and Supervised Agricultural Experiences (SAE) must be provided through one or more of the following: (1) foundational career exploration, (2) directed laboratory experience, (3) project ownership/entrepreneurship, (4) cooperative education/internship, (5) School Based Enterprise, or (6) Service Learning.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8100110	Orientation to Agriscience and Career Planning	AGRICULTUR 1 @2 EXP AG @4	Semester

## **Standards**

After successfully completing this course, the student will be able to perform the following:

- 01.0 Demonstrate knowledge and skills in agriscience research.
- 02.0 Demonstrate knowledge and skills in the importance of agriculture.
- 03.0 Demonstrate knowledge and skills in agriscience laboratories and workshops.
- 04.0 Demonstrate knowledge and skills plant sciences.
- 05.0 Demonstrate knowledge and skills in animal sciences.
- 06.0 Demonstrate knowledge and skills in food science.
- 07.0 Demonstrate product knowledge and skills in agricultural processing and marketing.
- 08.0 Demonstrate knowledge and skills in natural resources.
- 09.0 Demonstrate leadership and communication skills.
- 10.0 Integrate the use of science, mathematics, reading, geography, history, writing, and communication in agriscience and technology.

Listed below are the eight career and education planning course standards.

- 11.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.
- 12.0 Develop skills to locate, evaluate, and interpret career information.
- 13.0 Identify and demonstrate processes for making short and long term goals.
- 14.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
- 15.0 Understand the relationship between educational achievement and career choices/postsecondary options.
- 16.0 Identify a career cluster and related pathways through an interest assessment that match career and education goals.
- 17.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
- 18.0 Demonstrate knowledge of technology and its application in career fields/clusters.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Orientation to Agriscience and Career Planning  
**Course Number:** 8100110  
**Course Length:** Semester

**Course Description:**

This course is designed to provide an understanding of the agricultural food system, environmental resources, and strategies used to produce and market agricultural products, and an exploration of research through the use of the scientific method. Throughout the semester/year student will take a closer look at agriculture and learn about the research and development of our food supply.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate knowledge and skills in agriscience research. The student will be able to:
01.01	Define agriscience.
01.02	Describe products of agriscience.
01.03	Define the scope of research in agriscience.
01.04	Discuss the impact of research on agriculture on consumer opinion.
01.05	Identify the steps of the scientific method.
01.06	Apply the scientific method to solve an agricultural problem.
02.0	Demonstrate knowledge and skills in the importance of agriculture. The student will be able to:
02.01	Describe the historical evolution of agriculture and its impact on civilization.
02.02	Discuss the scope of agriculture and its impact on daily life.
02.03	Identify specific areas of commodity production in the state, nation and world.
02.04	Describe the diversity of career opportunities in agriculture and its related fields through a Foundational SAE.
03.0	Demonstrate knowledge and skills in agriscience laboratories and workshops. The student will be able to:
03.01	Identify tools, machines and equipment used in agriculture.

03.02	Demonstrates proper laboratory/ workshop safety techniques.
03.03	Complete a project demonstrating the safe use of agricultural tools, machinery or equipment.
03.04	Discuss the impact of agricultural mechanization and engineering on society.
03.05	Conduct an experiment using proper laboratory techniques.
04.0	Demonstrate knowledge and skills in plant sciences. The student will be able to:
04.01	Distinguish between horticulture, forestry, and agronomic.
04.02	Propagate and grow an agricultural plant.
04.03	Identify supplies and services industries related to plant science.
04.04	Develop a specimen collection of local plant materials.
04.05	Demonstrate proper planting techniques.
04.06	Discuss organic agriculture and conventional agriculture as it relates to plants
05.0	Demonstrate knowledge and skills in animal sciences. The student will be able to:
05.01	Distinguish between food, service and companion animals.
05.02	Identify breeds of food, service and companion animals.
05.03	Identify supplies and services industries related to animal science.
05.04	Identify the needs of an animal and describe and describe proper care for that animal.
05.05	Identify consumer foods and products derived from animals.
05.06	Discuss organic and conventional agriculture as it relates to livestock production.
06.0	Demonstrate knowledge and skills in food science. The student will be able to:
06.01	Describe the proper handling techniques and storage of food products from farm to plate.
06.02	List and explain methods of food preservation.
06.03	Conduct a food taste test.
06.04	Develop a production and marketing plan for a food product.

06.05	Read and interpret a food label.
07.0	Demonstrate product knowledge and skills in agricultural processing and marketing. The student will be able to:
07.01	Define agricultural product processing and marketing.
07.02	Describe the processing and marketing of an agriculture product from farm to consumer.
07.03	Prepare, process, and market an agricultural product.
08.0	Demonstrate knowledge and skills in natural resources. The student will be able to:
08.01	Define and identify renewable and nonrenewable natural resources.
08.02	Describe agricultural management practices that conserve natural resources.
08.03	Describe effects of pollution on the environment.
08.04	Demonstrate how to recycle or conserve a natural resource.
09.0	Demonstrate leadership and communication skills. The student will be able to:
09.01	Describe the aims and purposes of the FFA organization.
09.02	Identify opportunities available to FFA members.
09.03	Identify characteristics of a good leader.
09.04	Participate in a cooperative leadership development activity or FFA Career Development Event.
09.05	Identify the importance of effective communication skills.
09.06	Demonstrate effective communication skills.
09.07	Describe the diversity of career opportunities in agriculture and its related fields through a Foundational SAE.
10.0	Integrate the use of science, mathematics, reading, geography, history, writing and communication in agriscience and technology. The student will be able to:
10.01	Apply basic mathematic operations to solve agricultural problems.
10.02	Correctly use measuring instruments and utilize measurements to solve agricultural problems.
10.03	Prepare written and oral materials using correct English grammar.
10.04	Identify the main idea in oral presentations and written materials.

10.05 Locates, organizes and interprets information from a variety of agricultural sources.

**Listed below are the eight career and education planning course standards:**

The student will be able to:

11.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.

12.0 Develop skills to locate, evaluate, and interpret career information.

13.0 Identify and demonstrate processes for making short and long term goals.

14.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.

15.0 Understand the relationship between educational achievement and career choices/postsecondary options.

16.0 Identify a career cluster and related pathways through an interest assessment that match career and education goals.

17.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.

18.0 Demonstrate knowledge of technology and its application in career fields/clusters.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Extended Student Supervision**

Because of the production and marketing cycle of the agriculture industry, this program requires individual instruction and supervision of students for the entire period beyond the 180-day school year.

### **Career Planning**

**Effective July 1, 2019, per Section 1003.4156, Florida Statutes (F.S.), for students to meet middle grades promotion requirements, a Career and Education Planning course must be completed in either sixth, seventh, or eighth grade.** These courses should be taught integrating the eight career and education planning course standards. The MyCareerShines powered by Kuder® career planning system is available free of charge to all Florida middle and high schools to assist students in completing research-based career assessments, exploring career options and developing an online academic and career plan.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**



National FFA Organization (FFA) is the intercurricular career and technical student organization(s) providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Course Title:** Introduction to Agriscience  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Agriculture, Food and Natural Resources

**Secondary – Middle School**

Course Number	8100120
CIP Number	01019921EX
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	FFA

**Purpose**

This course is the first in a sequence of courses designed to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Agriculture, Food and Natural Resource career cluster. The content includes but is not limited to agricultural literacy, importance of agriculture, the role of science, math, reading, writing, geography, history, and technology in agriculture, plants and animals, and sources of consumer goods from agriculture. Reinforcement of academic skills occurs through classroom instruction and applied laboratory procedures. Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

Student will learn a basic understanding of agriculture with focuses on plants, animals, and natural resources. Students will also learn about our food system and the safety procedures in agriculture systems.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters. Planned and Supervised Agricultural Experiences (SAE) must be provided through one or more of the following: (1) foundational career exploration, (2) directed laboratory experience, (3) project ownership/entrepreneurship, (4) cooperative education/internship, (5) School Based Enterprise, or (6) Service Learning.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8100120	Introduction to Agriscience	AGRICULTUR 1 @2 EXP AG @4	Semester

## **Standards**

After successfully completing this course, the student will be able to perform the following:

- 01.0 Identify the importance of agriscience.
- 02.0 Identify and practice agriculture safety skills.
- 03.0 Describe the importance of plants and animals in agriculture.
- 04.0 Use selected techniques to produce finished products from agricultural materials.
- 05.0 Describe leadership and communication skills.
- 06.0 Integrate the use of science, mathematics, reading, geography, history, writing, and communication in agriscience and technology.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Introduction to Agriscience  
**Course Number:** 8100120  
**Course Length:** Semester

**Course Description:**

This course is the first course in a sequence of middle school agriculture study. This course is designed to develop competencies in the areas of agricultural literacy, importance of agriculture, the role of science, math, reading, writing, geography, history, and technology in agriculture, plants and animals, and sources of consumer goods from agriculture. Content of this course is focused on the introduction to the food system. During the semester/ year students will learn about plants, animals, food systems, and natural resources.

<b>CTE Standards and Benchmarks</b>	
01.0	Identify the importance of agriscience. The student will be able to:
01.01	Define agriscience and explain its diversity and scope.
01.02	Describe the importance of agriculture on a world, national, state, and community scale.
01.03	Describe the importance of agriculture in each individual's life.
01.04	Collect and discuss information on current agricultural events.
01.05	Trace the evolution of agriscience from its beginnings to current applications.
01.06	Identify the major agricultural production areas and the major commodities produced in the United States and Florida.
01.07	Describe the diversity of career opportunities in agriculture and its related fields through a Foundational SAE.
01.08	Describe the relationship between natural resources and agriculture.
01.09	Describe technology used in agricultural production, processing, and marketing of agricultural products.
02.0	Identify and practice agriculture safety skills. The student will be able to:
02.01	Identify procedures for safely using equipment.
02.02	Identify and use proper personal protective equipment (PPE).

02.03	Describe proper procedures for safety in agriculture classroom, laboratory, and land-laboratory.
03.0	Describe the importance of plants and animals in agriculture. The student will be able to:
03.01	Identify plants important to agriculture.
03.02	Identify animals important to agriculture.
03.03	Demonstrate the proper handling and ethical care of animals.
03.04	Describe animal rights and animal welfare.
03.05	Compare organic farming and conventional farming.
03.06	Identify conditions necessary for agricultural production.
03.07	Evaluate proper health and nutrition for livestock animals.
03.08	Compare companion animals and livestock animals
03.09	Identify the agricultural source of consumer products.
03.10	Trace the development of an agricultural product from the producer to the consumer.
04.0	Use selected techniques to produce finished products from agricultural materials. The student will be able to:
04.01	Complete a project safely using the appropriate agricultural tools, machinery, or equipment.
04.02	Prepare and process an agricultural product.
04.03	Propagate horticulture plants.
05.0	Describe leadership and communication skills. The student will be able to:
05.01	Describe the aims and purposes of the FFA organization.
05.02	Identify opportunities available to FFA members.
05.03	Define leadership and different leadership styles.
05.04	Define communication and identify methods of communication
05.05	Prepare and present and extemporaneous speech.
06.0	Integrate the use of science, mathematics, reading, geography, history, writing, and communication in agriscience and technology. The student will be able to:

06.01	Apply basic mathematics operations to solve agricultural problems.
06.02	Correctly use measuring devices and utilize measurements to solve agricultural problems.
06.03	Prepare written and oral materials using correct English grammar.
06.04	Identify the main idea in oral presentations and written materials.
06.05	Locates, organizes, and interprets information from a variety of agricultural sources.

### **Additional Information**

#### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

#### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

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#### **Extended Student Supervision**

Because of the production and marketing cycle of the agriculture industry, this program requires individual instruction and supervision of students for the entire period beyond the 180-day school year.

#### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

National FFA Organization (FFA) is the intercurricular career and technical student organization(s) providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.



Florida Department of Education  
Curriculum Framework

**Course Title:** Exploration of Agriscience  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Agriculture, Food and Natural Resources

**Secondary – Middle School**

Course Number	8100210
CIP Number	01019920EX
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	FFA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Agriculture, Food and Natural Resource career cluster. The content includes but is not limited to agricultural literacy, importance of agriculture, the role of science, math, reading, writing, geography, history, and technology in agriculture, plants and animals, and sources of consumer goods from agriculture. Reinforcement of academic skills occurs through classroom instruction and applied laboratory procedures. Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters. Planned and Supervised Agricultural Experiences (SAE) must be provided through one or more of the following: (1) foundational career exploration, (2) directed laboratory experience, (3) project ownership/entrepreneurship, (4) cooperative education/internship, (5) School Based Enterprise, or (6) Service Learning.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8100210	Exploration of Agriscience	AGRICULTUR 1 @2 EXP AG @4	Semester

## **Standards**

After successfully completing this course, the student will be able to perform the following:

- 01.0 Explain the evolution of agriculture.
- 02.0 Apply knowledge and skills in plant sciences.
- 03.0 Apply knowledge and skills in Forestry.
- 04.0 Apply knowledge and skills in animal sciences.
- 05.0 Demonstrate knowledge and skills in food science.
- 06.0 Apply knowledge and skills in biotechnology.
- 07.0 Apply knowledge and skills in processing and marketing.
- 08.0 Apply knowledge and skills in natural resources.
- 09.0 Apply leadership and communication skills.
- 10.0 Integrate the use of science, mathematics, reading, geography, history, writing, and communication in agriscience and technology.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Exploration of Agriscience  
**Course Number:** 8100210  
**Course Length:** Semester

**Course Description:**

This course is designed for students that have already covered the basic introduction to agriculture. This course is designed to provide instruction that explores the tasks, training, education and physical requirements of a broad range of agriscience and natural resources careers develop competencies in the areas of agricultural literacy, importance of agriculture, the role of science, math, reading, writing, geography, history, and technology in agriculture, plants and animals, and sources of consumer goods from agriculture. During the semester/ year student will take a more in depth look into plants, animals, natural resources, and food science as they learn more about our food system.

<b>CTE Standards and Benchmarks</b>	
01.0	Explain the evolution of agriculture. The student will be able to:
01.01	Define agriculture.
01.02	Identify and research opportunities in agriculture and its related fields through a Foundational SAE.
01.03	Explain how commodities have diversified in Florida.
02.0	Apply knowledge and skills in plant sciences. The student will be able to:
02.01	Produce an agricultural plant.
02.02	Discuss the technology involved in the development of improved crops.
02.03	Identify agribusinesses that provide supplies and services to plant science industries in the state..
02.04	Identify the recommended uses and safety precautions from a pesticide label.
02.05	Discuss basic landscape design.
02.06	Identify pests, pathogens, parasites, and predators of horticultural and agronomic crops.
02.07	Describe the major components of soil.
02.08	Demonstrate how to read a fertilizer label

02.09	Describe various forms of fertilizer and proper application method.
03.0	Apply knowledge and skills in Forestry. The student will be able to:
03.01	Identify the major forest regions of the United States and Florida.
03.02	Describe the importance of forests and forest products.
03.03	Describe how trees grow, reproduce, and components of forest health.
03.04	Describe tools and techniques common to the forest industry.
03.05	Identify pests, pathogens, parasites, and predators of forests.
04.0	Apply knowledge and skills in animal sciences. The student will be able to:
04.01	Describe the differences between animal welfare and animal rights.
04.02	Discuss the technology involved in the development of improved animal products.
04.03	Identify important breeds of livestock.
04.04	Identify agribusinesses that provide supplies and services to animal science industries in the state.
04.05	Describe the uses of livestock and their products.
05.0	Demonstrate knowledge and skills in food science. The student will be able to:
05.01	Demonstrate the proper handling and storage of food products from farm to plate.
05.02	Describe and demonstrate at least one method of food preservation.
05.03	Conduct a food taste test.
05.04	Produce and market a food product.
05.05	Read, interpret, and develop a food label.
05.06	Describe the components of a balance diet.
05.07	Identify and compare USDA standards and grades for agricultural products.
06.0	Apply knowledge and skills in biotechnology. The student will be able to:
06.01	Define biotechnology.

06.02	Discuss current and future uses of genetic engineering.
06.03	Identify issues associated with biotechnology.
06.04	Explain the history of genetic engineering and biotechnology in agriculture.
07.0	Apply knowledge and skills in agricultural processing and marketing. The student will be able to:
07.01	Identify processing and packaging techniques used in agriculture.
07.02	Discuss the difference in marketing strategies between perishable and nonperishable commodities.
07.03	Describe how processing, packaging, and marketing affects the price of an item.
07.04	Recognize misleading advertising.
07.05	Describe how competition benefits the consumer.
08.0	Apply knowledge and skills in natural resources. The student will be able to:
08.01	Identify methods or practices of the conservation natural resources.
08.02	Demonstrate a method or practice of conservation.
08.03	Identify major ecosystems in Florida.
08.04	Discuss the importance of the ecosystems to agriculture, society and each other.
08.05	Define Best Management Practices (BMPs) and explain their benefits to agriculture.
09.0	Apply leadership and communication skills. The student will be able to:
09.01	Discuss the establishment and history of the FFA organization.
09.02	Identify the characteristics and responsibilities of organizational leaders.
09.03	Identify parliamentary procedure skills during a business meeting.
09.04	Demonstrate effective communication skills through delivery of a speech or conducting a demonstration.
09.05	Identify communication skills necessary for effective leadership.
09.06	Identify state and community organizations associated with agricultural promotion.
10.0	Integrate the use of science, mathematics, reading, geography, history, writing, and communication in agriscience and technology. The student will be able to:

10.01	Apply basic mathematics operations to solve agricultural problems.
10.02	Correctly use measuring devices and utilize measurements to solve agricultural problems.
10.03	Apply the scientific method to solve an agricultural problem.
10.04	Prepare written and/or oral materials using correct English grammar.
10.05	Identify the main idea in oral presentations and/or written materials.
10.06	Locate, organize, and interpret information from a variety of agricultural sources.

### **Additional Information**

#### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

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#### **Extended Student Supervision**

Because of the production and marketing cycle of the agriculture industry, this program requires individual instruction and supervision of students for the entire period beyond the 180-day school year.

## **Special Notes**

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## **Career and Technical Student Organization (CTSO)**

National FFA Organization (FFA) is the intercurricular career and technical student organization(s) providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

## **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.



Florida Department of Education  
Curriculum Framework

**Course Title:** Orientation to Agriscience  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Agriculture, Food and Natural Resources

**Secondary – Middle School**

Course Number	8100310
CIP Number	01019910OR
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	FFA

**Purpose**

This course provides an overview of agriculture, and will help students to be educated about their food supply. The content includes but is not limited to agricultural literacy, importance of agriculture, the role of science, math, reading, writing, geography, history, and technology in agriculture, plants and animals, and sources of consumer goods from agriculture. Reinforcement of academic skills occurs through classroom instruction and applied laboratory procedures. Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

Student will learn a basic understanding of agriculture with focuses on plants, animals, and natural resources. Students will also learn about our food system and the safety procedures in agriculture systems.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters. Planned and Supervised Agricultural Experiences (SAE) must be provided through one or more of the following: (1) foundational career exploration, (2) directed laboratory experience, (3) project ownership/entrepreneurship, (4) cooperative education/internship, (5) School Based Enterprise, or (6) Service Learning.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8100310	Orientation to Agriscience	AGRICULTUR 1 @2 EXP AG @4	Semester

## **Standards**

After successfully completing this course, the student will be able to perform the following:

- 01.0 Demonstrate knowledge and skills in agriscience research.
- 02.0 Demonstrate knowledge and skills in the importance of agriculture.
- 03.0 Demonstrate knowledge and skills in agriscience laboratories and workshops.
- 04.0 Demonstrate knowledge and skills in plant sciences.
- 05.0 Demonstrate knowledge and skills in animal sciences.
- 06.0 Demonstrate knowledge and skills in food science.
- 07.0 Demonstrate product knowledge and skills in agricultural processing and marketing.
- 08.0 Demonstrate knowledge and skills in natural resources.
- 09.0 Demonstrate leadership and communication skills.
- 10.0 Integrate the use of science, mathematics, reading, geography, history, writing, and communication in agriscience and technology.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Orientation to Agriscience  
**Course Number:** 8100310  
**Course Length:** Semester

**Course Description:**

This course is designed to provide an understanding of the agricultural food system, environmental resources, and strategies used to produce and market agricultural products, and an exploration of research through the use of the scientific method. Throughout the semester/year student will take a closer look at agriculture and learn about the research and development of our food supply.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate knowledge and skills in agriscience research. The student will be able to:
01.01	Define agriscience.
01.02	Describe products of agriscience.
01.03	Define the scope of research in agriscience.
01.04	Discuss the impact of research on agriculture on consumer opinion.
01.05	Identify the steps of the scientific method.
01.06	Apply the scientific method to solve an agricultural problem.
02.0	Demonstrate knowledge and skills in the importance of agriculture. The student will be able to:
02.01	Describe the historical evolution of agriculture and its impact on civilization.
02.02	Discuss the scope of agriculture and its impact on daily life.
02.03	Identify specific areas of commodity production in the state, nation and world.
02.04	Describe the diversity of career opportunities in agriculture and its related fields through a Foundational SAE.
03.0	Demonstrate knowledge and skills in agriscience laboratories and workshops. The student will be able to:
03.01	Identify tools, machines and equipment used in agriculture.

03.02	Demonstrates proper laboratory/ workshop safety techniques.
03.03	Complete a project demonstrating the safe use of agricultural tools, machinery or equipment.
03.04	Discuss the impact of agricultural mechanization and engineering on society.
03.05	Conduct an experiment using proper laboratory techniques.
04.0	Demonstrate knowledge and skills in plant sciences. The student will be able to:
04.01	Distinguish between horticulture, forestry, and agronomy.
04.02	Propagate and grow an agricultural plant.
04.03	Identify supplies and services industries related to plant science.
04.04	Develop a specimen collection of local plant materials.
04.05	Demonstrate proper planting techniques.
04.06	Discuss organic agriculture and conventional agriculture as it relates to plants.
05.0	Demonstrate knowledge and skills in animal sciences. The student will be able to:
05.01	Distinguish between food, service and companion animals.
05.02	Identify breeds of food, service and companion animals.
05.03	Identify supplies and services industries related to animal science.
05.04	Identify the needs of an animal and describe and describe proper care for that animal.
05.05	Identify consumer foods and products derived from animals.
05.06	Discuss organic and conventional agriculture as it relates to livestock production.
06.0	Demonstrate knowledge and skills in food science. The student will be able to:
06.01	Describe the proper handling techniques and storage of food products from farm to plate.
06.02	List and explain methods of food preservation.
06.03	Conduct a food taste test.
06.04	Develop a production and marketing plan for a food product.

06.05	Read and interpret a food label.
07.0	Demonstrate product knowledge and skills in agricultural processing and marketing. The student will be able to:
07.01	Define agricultural product processing and marketing.
07.02	Describe the processing and marketing of an agriculture product from farm to consumer.
07.03	Prepare, process, and market an agricultural product.
08.0	Demonstrate knowledge and skills in natural resources. The student will be able to:
08.01	Define and identify renewable and nonrenewable natural resources.
08.02	Describe agricultural management practices that conserve natural resources.
08.03	Describe effects of pollution on the environment.
08.04	Demonstrate how to recycle or conserve a natural resource.
09.0	Demonstrate leadership and communication skills. The student will be able to:
09.01	Describe the aims and purposes of the FFA organization.
09.02	Identify opportunities available to FFA members.
09.03	Identify characteristics of a good leader.
09.04	Participate in a cooperative leadership development activity or FFA Career Development Event.
09.05	Identify the importance of effective communication skills.
09.06	Demonstrate effective communication skills.
10.0	Integrate the use of science, mathematics, reading, geography, history, writing and communication in agriscience and technology. The student will be able to:
10.01	Apply basic mathematic operations to solve agricultural problems.
10.02	Correctly use measuring instruments and utilize measurements to solve agricultural problems.
10.03	Prepare written and oral materials using correct English grammar.
10.04	Identify the main idea in oral presentations and written materials.
10.05	Locate, organize, and interpret information from a variety of agricultural sources.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

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MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

National FFA Organization (FFA) is the intercurricular career and technical student organization(s) providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

## **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.



Florida Department of Education  
Curriculum Framework

**Course Title:** Introduction to Architecture & Construction  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Architecture & Construction

**Secondary – Middle School**

Course Number	8109350
CIP Number	148109350M
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	SkillsUSA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Architecture & Construction career cluster. The content includes but is not limited to careers in designing, planning, managing, building and maintaining the built environment. Reinforcement of academic skills occurs through classroom instruction and applied laboratory procedures.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8109350	Introduction to Architecture & Construction	TEC ED 1@2 ENG&TEC ED1@2 BLDG CONST @7 7G BLDG MAINT @7 7G DRAFTING @7 7G	Semester

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate an understanding of the Design/ Pre-Construction career pathway.
- 02.0 Demonstrate an understanding of the Construction career pathway.
- 03.0 Demonstrate an understanding of the Maintenance/ Operation career pathway.
- 04.0 Apply leadership and communication skills.
- 05.0 Describe how information technology is used in the Architecture and Construction career cluster.
- 06.0 Use information technology tools.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Introduction to Architecture & Construction  
**Course Number:** 8109350  
**Course Length:** Semester

**Course Description:**

Beginning with a broad overview of the Architecture & Construction career cluster, students are introduced to the terminology, careers, history, required skills, and technologies associated with each pathway in the Architecture & Construction career cluster. Additionally, they will be provided with opportunities to acquire and demonstrate beginning leadership skills.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate an understanding of the Design/ Pre-Construction career pathway--The student will be able to:
01.01	Define and use proper terminology associated with the Design/ Pre-Construction career pathway.
01.02	Describe some of the careers available in the Design/ Pre-Construction career pathway.
01.03	Identify common characteristics of the careers in the Design/ Pre-Construction career pathway.
01.04	Research the history of the Design/ Pre-Construction career pathway and describe how the associated careers have evolved and impacted society.
01.05	Identify skills required to successfully enter any career in the Design/Pre-Construction career pathway.
01.06	Describe technologies associated in careers within the Design/ Pre-Construction career pathway.
02.0	Demonstrate an understanding of the Construction career pathway--The student will be able to:
02.01	Define and use proper terminology associated with the Construction career pathway.
02.02	Describe some of the careers available in the Construction career pathway.
02.03	Identify common characteristics of the careers in the Construction career pathway.
02.04	Research the history of the Construction career pathway and describe how the careers have evolved and impacted society.
02.05	Identify skills required to successfully enter any career in the Construction career pathway.
02.06	Describe technologies associated in careers within the Construction career pathway.

## CTE Standards and Benchmarks

03.0 Demonstrate an understanding of the Maintenance/ Operation career pathway--The student will be able to:

03.01 Define and use proper terminology associated with the Maintenance/ Operation career pathway.

03.02 Describe some of the careers available in the Maintenance/ Operation career pathway.

03.03 Identify common characteristics of the careers in the Maintenance/ Operation career pathway.

03.04 Research the history of the Maintenance/ Operation career pathway and describe how the careers have evolved and impacted society.

03.05 Identify skills required to successfully enter any career in the Maintenance/ Operation career pathway.

03.06 Describe technologies associated in careers within the Maintenance/ Operation career pathway.

04.0 Apply leadership and communication skills--The student will be able to:

04.01 Discuss the establishment and history of the SkillsUSA organization.

04.02 Identify the characteristics and responsibilities of organizational leaders.

04.03 Demonstrate parliamentary procedure skills during a meeting.

04.04 Participate in a committee which has an assigned task and report to the class.

04.05 Demonstrate effective communication skills through delivery of a speech, a slide presentation, or conducting a demonstration.

04.06 Use a computer to assist in the completion of a project related to the Architecture & Construction career cluster.

05.0 Describe how information technology is used in the Architecture and Construction career cluster. – The student will be able to:

05.01 Identify information technology (IT) careers in the Architecture and Construction career cluster, including the responsibilities, tasks and skills they require.

05.02 Relate information technology project management concepts and terms to careers in the Architecture and Construction career cluster.

05.03 Manage information technology components typically used in professions of the Architecture and Construction career cluster.

05.04 Identify security-related ethical and legal IT issues faced by professionals in the Architecture and Construction career cluster.

06.0 Use information technology tools. – The student will be able to:

06.01 Identify the functions of web browsers, and use them to access the World Wide Web and other computer resources typically used in the Architecture and Construction career cluster.

06.02 Use e-mail clients to send simple messages and files to other Internet users.

## CTE Standards and Benchmarks

06.03 Demonstrate ways to communicate effectively using Internet technology.

06.04 Use different types of web search engines effectively to locate information relevant to the Architecture and Construction career cluster.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

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### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career Planning**

**Effective July 1, 2019, per Section 1003.4156, Florida Statutes (F.S.), for students to meet middle grades promotion requirements, a Career and Education Planning course must be completed in either sixth, seventh, or eighth grade.** These courses should be taught integrating the eight career and education planning course standards. The MyCareerShines powered by Kuder® career planning system is available free of charge to all Florida middle and high schools to assist students in completing research-based career assessments, exploring career options and developing an online academic and career plan.

### **Career and Technical Student Organization (CTSO)**

SkillsUSA is the intercurricular career and technical student organization providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

## **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Course Title:** Introduction to Architecture & Construction and Career Planning  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Architecture & Construction

Secondary – Middle School	
Course Number	8109360
CIP Number	148109360M
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b>Course Structure</b> section.
CTSO	SkillsUSA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Architecture & Construction career cluster. The content includes but is not limited to careers in designing, planning, managing, building and maintaining the built environment. Reinforcement of academic skills occurs through classroom instruction and applied laboratory procedures.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8109360	Introduction to Architecture & Construction and Career Planning	TEC ED 1@2 ENG&TEC ED1@2 BLDG CONST @7 7G BLDG MAINT @7 7G DRAFTING @7 7G	Semester



**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate an understanding of the Design/ Pre-Construction career pathway.
- 02.0 Demonstrate an understanding of the Construction career pathway.
- 03.0 Demonstrate an understanding of the Maintenance/ Operation career pathway.
- 04.0 Apply leadership and communication skills.
- 05.0 Describe how information technology is used in the Architecture and Construction career cluster.
- 06.0 Use information technology tools.

**Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes:**

- 07.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.
- 08.0 Develop skills to locate, evaluate, and interpret career information.
- 09.0 Identify and demonstrate processes for making short and long term goals.
- 10.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
- 11.0 Understand the relationship between educational achievement and career choices/postsecondary options.
- 12.0 Identify a career cluster and related pathways through an interest assessment that match career and education goals.
- 13.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
- 14.0 Demonstrate knowledge of technology and its application in career fields/clusters.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Introduction to Architecture & Construction and Career Planning  
**Course Number:** 8109360  
**Course Length:** Semester

**Course Description:**

Beginning with a broad overview of the Architecture & Construction career cluster, students are introduced to the terminology, careers, history, required skills, and technologies associated with each pathway in the Architecture & Construction career cluster. Additionally, they will be provided with opportunities to acquire and demonstrate beginning leadership skills.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate an understanding of the Design/ Pre-Construction career pathway--The student will be able to:
01.01	Define and use proper terminology associated with the Design/ Pre-Construction career pathway.
01.02	Describe some of the careers available in the Design/ Pre-Construction career pathway.
01.03	Identify common characteristics of the careers in the Design/ Pre-Construction career pathway.
01.04	Research the history of the Design/ Pre-Construction career pathway and describe how the associated careers have evolved and impacted society.
01.05	Identify skills required to successfully enter any career in the Design/Pre-Construction career pathway.
01.06	Describe technologies associated in careers within the Design/ Pre-Construction career pathway.
02.0	Demonstrate an understanding of the Construction career pathway--The student will be able to:
02.01	Define and use proper terminology associated with the Construction career pathway.
02.02	Describe some of the careers available in the Construction career pathway.
02.03	Identify common characteristics of the careers in the Construction career pathway.
02.04	Research the history of the Construction career pathway and describe how the careers have evolved and impacted society.
02.05	Identify skills required to successfully enter any career in the Construction career pathway.
02.06	Describe technologies associated in careers within the Construction career pathway.

## CTE Standards and Benchmarks

03.0 Demonstrate an understanding of the Maintenance/ Operation career pathway--The student will be able to:

03.01 Define and use proper terminology associated with the Maintenance/ Operation career pathway.

03.02 Describe some of the careers available in the Maintenance/ Operation career pathway.

03.03 Identify common characteristics of the careers in the Maintenance/ Operation career pathway.

03.04 Research the history of the Maintenance/ Operation career pathway and describe how the careers have evolved and impacted society.

03.05 Identify skills required to successfully enter any career in the Maintenance/ Operation career pathway.

03.06 Describe technologies associated in careers within the Maintenance/ Operation career pathway.

04.0 Apply leadership and communication skills--The student will be able to:

04.01 Discuss the establishment and history of the SkillsUSA organization.

04.02 Identify the characteristics and responsibilities of organizational leaders.

04.03 Demonstrate parliamentary procedure skills during a meeting.

04.04 Participate in a committee which has an assigned task and report to the class.

04.05 Demonstrate effective communication skills through delivery of a speech, a slide presentation, or conducting a demonstration.

04.06 Use a computer to assist in the completion of a project related to the Architecture & Construction career cluster.

05.0 Describe how information technology is used in the Architecture and Construction career cluster. – The student will be able to:

05.01 Identify information technology (IT) careers in the Architecture and Construction career cluster, including the responsibilities, tasks and skills they require.

05.02 Relate information technology project management concepts and terms to careers in the Architecture and Construction career cluster.

05.03 Manage information technology components typically used in professions of the Architecture and Construction career cluster.

05.04 Identify security-related ethical and legal IT issues faced by professionals in the Architecture and Construction career cluster.

06.0 Use information technology tools. – The student will be able to:

06.01 Identify the functions of web browsers, and use them to access the World Wide Web and other computer resources typically used in the Architecture and Construction career cluster.

06.02 Use e-mail clients to send simple messages and files to other Internet users.

## CTE Standards and Benchmarks

06.03 Demonstrate ways to communicate effectively using Internet technology.

06.04 Use different types of web search engines effectively to locate information relevant to the Architecture and Construction career cluster.

### **Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes:**

The student will be able to:

07.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.

08.0 Develop skills to locate, evaluate, and interpret career information.

09.0 Identify and demonstrate processes for making short and long term goals.

10.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.

11.0 Understand the relationship between educational achievement and career choices/postsecondary options.

12.0 Identify a career cluster and related pathways that match career and education goals.

13.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.

14.0 Demonstrate knowledge of technology and its application in career fields/clusters.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career Planning**

**Effective July 1, 2019, per Section 1003.4156, Florida Statutes (F.S.), for students to meet middle grades promotion requirements, a Career and Education Planning course must be completed in either sixth, seventh, or eighth grade.** These courses should be taught integrating the eight career and education planning course standards. The MyCareerShines powered by Kuder® career planning system is available free of charge to all Florida middle and high schools to assist students in completing research-based career assessments, exploring career options and developing an online academic and career plan.

### **Career and Technical Student Organization (CTSO)**

SkillsUSA is the intercurricular career and technical student organization for providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

## **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Program Title:** Fundamentals of Architecture and Construction  
**Program Type:** Orientation/Exploratory  
**Career Cluster:** Architecture and Construction

**Secondary – Middle School**

Program Number	8130300
CIP Number	148130300M
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b>Course Structure</b> section.
CTSO	SkillsUSA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Architecture and Construction career cluster. The content includes but is not limited to investigating careers, reading and drawing plans and constructing models. Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8130300	Fundamentals of Architecture and Construction	TEC ED 1@2 ENG&TEC ED1@2 BLDG CONST @7 7G BLDG MAINT @7 7G DRAFTING @7 7G	Semester

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Investigate careers and entry requirements within the design/ preconstruction pathway.
- 02.0 Use safe work practices.
- 03.0 Read and interpret basic construction documents and specifications.
- 04.0 Draw basic plans by hand.
- 05.0 Read civil, architectural and mechanical, electrical and plumbing (MEP) drawings.
- 06.0 Investigate careers and entry requirements within the construction pathway.
- 07.0 Plan the construction of a model or architectural detail from a set of plans.
- 08.0 Construct a model or architectural detail from plans and specifications.
- 09.0 Investigate careers and entry requirements within the operation and maintenance pathway.
- 10.0 Analyze the impact of design decisions on building operations and maintenance.
- 11.0 Explain sustainability issues related to the design, construction and maintenance of the built environment.
- 12.0 Identify components of network systems.
- 13.0 Describe and use communication features of information technology.



**Florida Department of Education  
Student Performance Standards**

**Course Title:** Fundamentals of Architecture and Construction  
**Course Number:** 8130300  
**Course Length:** Semester

**Course Description:**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Architecture and Construction career cluster. The content includes but is not limited to investigating careers, reading and drawing plans and constructing models.

<b>CTE Standards and Benchmarks</b>	
01.0	Investigate careers and entry requirements within the design/ preconstruction pathway--The student will be able to:
01.01	Describe careers in design/preconstruction (e.g. architects, interior designers, drafters, engineers - civil, MEP and structural, urban and regional planners, etc.)
01.02	Explain educational and training pathways necessary for these careers.
01.03	Research and present information on a design / preconstruction career including roles and responsibilities, opportunities for employment and the requirements for education and training.
02.0	Use safe work practices--The student will be able to:
02.01	Comply with all applicable basic Occupational Safety and Health Administration (OSHA) rules and regulations.
02.02	Use appropriate safety equipment.
02.03	Describe personal and jobsite safety rules and regulations that maintain safe and healthy work environments and work ethics.
03.0	Read and interpret basic construction documents and specifications--The student will be able to:
03.01	Name various types of drawings used in construction documents and explain their purpose.
03.02	Locate sections, elevations and details indicated on the floor plan within the set of construction documents.
03.03	Select and use appropriate architectural scales for various drawings.
03.04	Identify various symbols and terminology used in construction documents.
03.05	Read and interpret specifications.

## CTE Standards and Benchmarks

03.06	Explain the scope and purpose of building codes and regulations.
04.0	Draw basic plans by hand--The student will be able to:
04.01	Draw plans and corresponding elevations, sections and details.
04.02	Apply appropriate architectural scales to drawings.
04.03	Apply basic building codes in drawings.
04.04	Create door, window and finish schedules.
05.0	Read civil, architectural and mechanical, electrical and plumbing (MEP) drawings--The student will be able to:
05.01	Locate civil plans within a construction documents set, identify defining features and state the importance of these plans.
05.02	Locate architectural plans within a construction documents set, identify defining features and state the importance of these plans.
05.03	Locate mechanical plans within a construction documents set, identify defining features and state the importance of these plans.
05.04	Locate electrical plans within a construction documents set, identify defining features and state the importance of these plans.
05.05	Locate plumbing plans within a construction documents set, identify defining features and state the importance of these plans.
05.06	Name types of careers associated with the development of civil, architectural and mechanical, electrical and plumbing (MEP) drawings.
06.0	Investigate careers and entry requirements within the construction pathway--The student will be able to:
06.01	Describe careers in design/preconstruction (e.g. managers - project managers, project engineers, estimators, superintendents; sub-contractors and tradespersons - carpenters, masons, electricians, plumbers, HVAC technicians; etc.)
06.02	Explain educational and training pathways available for these careers.
06.03	Research and present information on a construction career including roles and responsibilities, opportunities for employment and the requirements for education and training.
07.0	Plan the construction of a model or architectural detail from a set of plans--The student will be able to:
07.01	Calculate material quantities and costs.
07.02	Determine the critical path as a progression of construction activities.
07.03	Draw a bar chart depicting construction schedule.
08.0	Construct a model or architectural detail from plans and specifications--The student will be able to:

## CTE Standards and Benchmarks

08.01 Use appropriate tools while demonstrating safe work practices.

08.02 Apply proper cutting and fastening techniques for basic model materials.

09.0 Investigate careers and entry requirements within the operation and maintenance pathway--The student will be able to:

09.01 Describe careers in operation and maintenance (energy auditors; building inspectors; system installers - HVAC, telecommunications, security/fire, solar, etc.; maintenance technicians; hazardous materials removers; environmental engineers).

09.02 Explain educational and training pathways necessary for these careers.

09.03 Research and present information on an operation and maintenance career including roles and responsibilities, opportunities for employment and the requirements for education and training.

10.0 Analyze the impact of design decisions on building operations and maintenance--The student will be able to:

10.01 Compare life-cycle costs for various building materials and/ or systems within the built environment.

10.02 Explain maintenance procedures for specific products or materials.

11.0 Explain sustainability issues related to the design, construction and maintenance of the built environment--The student will be able to:

11.01 Describe the impact of the construction industry on the natural environment.

11.02 Identify sustainable alternatives to conventional practices.

11.03 Identify specific practices that can lessen adverse impacts on the environment.

12.0 Identify components of network systems related to the Architecture and Construction industry--The student will be able to:

12.01 Identify structure to access internet, including hardware and software components.

12.02 Identify and configure user customization features in web browsers, including preferences, caching, and cookies.

12.03 Recognize essential database concepts.

12.04 Define and use additional networking and internet services.

13.0 Describe and use communication features of information technology--The student will be able to:

13.01 Define important internet communications protocols and their roles in delivering basic Internet services.

13.02 Identify basic principles of the Domain Name System (DNS).

13.03 Identify security issues related to Internet clients.

## CTE Standards and Benchmarks

13.04 Identify and use principles of Personal Information Management (PIM), including common applications.

13.05 Efficiently transmit text and binary files using popular Internet services.

13.06 Conduct a webcast and related services.

13.07 Represent technical issues to a non-technical audience.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

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SkillsUSA is the intercurricular career and technical student organization providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

## **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Course Title:** Business Keyboarding  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Business Management and Administration

**Secondary – Middle School**

Course Number	8200110
CIP Number	05079999OR
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	FBLA BPA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Business Management and Administration career cluster. The content includes but is not limited to instruction in introductory keyboarding, introductory word processing, introductory electronic presentation, introductory computer hardware, introductory Internet, and skills for business applications.

Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

## **Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8200110	Business Keyboarding	BUS ED 1 @2 TC COOP ED @7 VOE @7	Semester

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.



## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Identify and understand computer hardware.
- 02.0 Identify information technology tools and their proper uses.
- 03.0 Develop and apply keyboarding skills utilizing current technology.
- 04.0 Develop and apply word processing skills utilizing current technology.
- 05.0 Develop and apply electronic presentation skills utilizing current technology.
- 06.0 Develop and utilize business-related skills.
- 07.0 Perform activities using the worldwide web.
- 08.0 Describe how information technology is used in the Business Management and Administration career cluster.
- 09.0 Describe and use communication features of information technology.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Business Keyboarding  
**Course Number:** 8200110  
**Course Length:** Semester

**Course Description:**

This course is designed to provide instruction in introductory keyboarding, introductory word processing, introductory electronic presentation, introductory computer hardware, introductory Internet, and business applications skills. These competencies provide the skills necessary to ensure increased productivity and efficient utilization of equipment.

Activities including field trips and the use of guest presenters from the business community are appropriate for this course. These frameworks and student performance standards are the MINIMUM required for this course. As time allows, teachers are encouraged to add competencies in additional software and technologies.

<b>CTE Standards and Benchmarks</b>	
01.0	Identify and understand computer hardware. The student will be able to:
01.01	Define and identify input, output, and storage devices and their functions.
01.02	Define and identify memory in a computer.
02.0	Identify information technology tools and their proper uses. The student will be able to:
02.01	Define and identify various software applications (word processing, spreadsheets, database, presentation, digital publishing) and their uses.
03.0	Develop and apply keyboarding skills utilizing current technology. The student will be able to:
03.01	Demonstrate proper alphabet keyboarding techniques using correct ergonomic habits.
03.02	Demonstrate safety and respect for equipment and materials in lab.
03.03	Demonstrate proper techniques for keyboarding while keeping fingers on home row keys.
04.0	Develop and apply word processing skills utilizing current technology. The student will be able to:
04.01	Start and exit word processing software.
04.02	Identify the parts of a word processing screen, e.g., ribbon, status bar, title bar, insertion point, scroll box and bar, and tabs.

## CTE Standards and Benchmarks

04.03 Demonstrate ability to use and recognize the word processing window, including menus, toolbars, dialog boxes, tabs and ribbons.

04.04 Create and edit a new document.

04.05 Understand different views of document and using the zoom function.

04.06 Identify methods of moving the insertion point, i.e., arrow keys, backspace and delete.

04.07 Select and edit text.

04.08 Move text in a document using the copying/cutting/pasting and drag/drop text commands.

04.09 Format text by changing the font, size, color.

04.10 Align text horizontally and vertically.

04.11 Utilize the Undo and Redo commands.

04.12 Utilize the Show/Hide command.

04.13 Use basic proofreading skills including proofreader's marks.

04.14 Use spell/grammar check/thesaurus programs properly.

04.15 Understand the difference between Save and Save As.

04.16 Save, open and replace files.

04.17 Utilize Print Preview and demonstrate printing capabilities.

04.18 Demonstrate efficient use of the Help program.

05.0 Develop and apply electronic presentation skills utilizing current technology. The student will be able to:

05.01 Start and exit presentation software.

05.02 Identify the parts of a presentation screen, e.g., ribbon, status bar, title bar, insertion point, scroll box and bar, and tabs.

05.03 Create a new presentation document.

05.04 Select design layout, background, a template and color scheme.

05.05 Edit text.

05.06 Format text and graphics.

## CTE Standards and Benchmarks

05.07 Select order of frames.

05.08 Demonstrate ability to spell check, save and print presentation.

06.0 Develop and utilize business-related skills. The student will be able to:

06.01 Understand the importance of positive attitude in obtaining and maintaining a job.

06.02 Identify good grooming/dress habits for the workplace.

06.03 Develop problem solving skills.

06.04 Identify the benefits of teamwork.

06.05 Identify the importance of impromptu speaking ability in the workplace.

06.06 Identify the importance of prepared speaking ability in the workplace.

07.0 Perform activities using the world wide web. The student will be able to:

07.01 Explore the history of the Internet.

07.02 Introduce Internet vocabulary such as hyperlink, WWW, URL, and web browser.

07.03 Understand basic principles of the Domain Name System (DNS).

07.04 Perform basic Internet searches.

07.05 Identify and use various web browsers.

07.06 Identify and use various search engines.

07.07 Evaluate websites.

07.08 Understand Favorites/Bookmarks.

07.09 Understand and demonstrate Internet safety.

07.10 Discuss Internet privacy, ethics, network etiquette and copyright laws.

08.0 Describe how information technology is used in the Business, Management and Administration career cluster. The student will be able to:

08.01 Identify through internet research information technology (IT) careers in the Business, Management and Administration career cluster, including the responsibilities, tasks and skills they require.

## CTE Standards and Benchmarks

08.02 Identify security-related ethical and legal IT issues faced by professionals in the Business, Management and Administration career cluster.

09.0 Describe and use communication features of information technology. The student will be able to:

09.01 Identify and/or use various ways to communicate effectively using Internet technology, such as email, webcast, website, webpage, messaging, social networks, and blogging.

09.02 Identify security and privacy issues related to the Internet, including passwords and information theft.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students, including access to computers and appropriate software.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

Future Business Leaders of America (FBLA) and Business Professionals of America (BPA) are the intercurricular career and technical student organizations providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Course Title:** Business Leadership Skills  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Business Management and Administration

**Secondary – Middle School**

Course Number	8200120
CIP Number	05079999LS
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	FBLA BPA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Business Management and Administration career cluster. The content includes but is not limited to accounting, administrative support, digital publishing, entrepreneurship, international business, management and software applications.

Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.



## **Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8200120	Business Leadership Skills	BUS ED 1 @2 TC COOP ED @7 VOE @7	Semester

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Explore emerging workplace trends and issues.
- 02.0 Develop an awareness of business organizational structures.
- 03.0 Assess personal strengths as they relate to business career exploration.
- 04.0 Demonstrate business leadership skills.
- 05.0 Apply mathematical strategies to business applications.
- 06.0 Identify information technology tools and their purposes.
- 07.0 Apply communication skills.
- 08.0 Describe how information technology is used in the Business Management and Administration career cluster.
- 09.0 Describe and use communication features of information technology.
- 10.0 Demonstrate knowledge of information systems.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Business Leadership Skills  
**Course Number:** 8200120  
**Course Length:** Semester

**Course Description:**

The purpose of this course is to provide a comprehensive exploration of the core business themes. Students are exposed to concepts that may be further studied in individual programs in grades 9-12. Students will rotate through a content which includes accounting, administrative support, digital publishing, entrepreneurship, international business, management and software applications.

<b>CTE Standards and Benchmarks</b>	
01.0	Explore emerging workplace trends and issues. The student will be able to:
01.01	Describe current trends and issues that impact global and local business environments.
02.0	Develop an awareness of business organizational structures. The student will be able to:
02.01	Explore organizational structures in today's business environments.
02.02	Assess personal performance and identify strategies for improvement.
02.03	Develop an awareness of the impact of the economy as it relates to the marketplace.
03.0	Assess personal strengths as they relate to business career exploration. The student will be able to:
03.01	Survey and assess personal aptitudes and interests related to careers.
04.0	Demonstrate business leadership skills. The student will be able to:
04.01	Demonstrate leadership skills needed to develop a positive work environment.
04.02	Apply appropriate strategies to manage conflict in work situations.

## CTE Standards and Benchmarks

05.0 Apply mathematical strategies to business applications. The student will be able to:

05.01 Select and implement appropriate mathematical tools to solve business financial problems.

06.0 Identify information technology tools and their purposes. The student will be able to:

06.01 Define and identify various software applications (word processing, spreadsheets, database, presentation, digital publishing) and their uses.

06.02 Identify the functions of web browsers, and use them to access the World Wide Web and other computer resources typically used in the Business, Management and Administration career cluster.

06.03 Use different types of web search engines effectively to locate information relevant to the Business, Management and Administration career cluster.

07.0 Apply communication skills. The student will be able to:

07.01 Select and use appropriate modes of communication, including the Internet, for specific workplace situations.

07.02 Use presentation software to enhance personal and professional communications.

07.03 Produce electronic publications using digital publishing software.

08.0 Describe how information technology is used in the Business, Management and Administration career cluster. The student will be able to:

08.01 Identify through Internet research information technology (IT) careers in the Business, Management and Administration career cluster, including the responsibilities, tasks and skills they require.

08.02 Identify security-related ethical and legal IT issues faced by professionals in the Business, Management and Administration career cluster.

09.0 Describe and use communication features of information technology. The student will be able to:

09.01 Identify basic principles of the Domain Name System (DNS).

09.02 Identify security and privacy issues related to the Internet, including passwords and information theft.

09.03 Identify and/or use various ways to communicate effectively using internet technology, such as email, webcast, website, webpage, messaging, social networks, and blogging.

## CTE Standards and Benchmarks

09.04 Represent technical issues to a non-technical audience.

10.0 Demonstrate knowledge of information systems. The student will be able to:

10.01 Use current and emerging computer technology and software to perform personal and business related tasks.

10.02 Apply the use of information management tools to develop and coordinate the distribution of work.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students, including access to computers and appropriate software.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

Future Business Leaders of America (FBLA) and Business Professionals of America (BPA) are the intercurricular career and technical student organizations providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Course Title:** Business Keyboarding and Career Planning  
**Course Type:** Orientation/Exploratory and Career Planning  
**Career Cluster:** Business Management and Administration

**Secondary – Middle School**

Course Number	8200130
CIP Number	0507999905
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	FBLA BPA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Business Management and Administration career cluster. The content includes but is not limited to instruction in introductory keyboarding, introductory word processing, introductory electronic presentation, introductory computer hardware, introductory Internet, and skills for business applications.

Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.



## **Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8200130	Business Keyboarding and Career Planning	BUS ED 1 @2 TC COOP ED @7 VOE @7	Semester

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Identify and understand computer hardware.
- 02.0 Identify information technology tools and their proper uses.
- 03.0 Develop and apply keyboarding skills utilizing current technology.
- 04.0 Develop and apply word processing skills utilizing current technology.
- 05.0 Develop and apply electronic presentation skills utilizing current technology.
- 06.0 Develop and utilize business-related skills.
- 07.0 Perform activities using the worldwide web.
- 08.0 Describe how information technology is used in the Business, Management and Administration career cluster.
- 09.0 Describe and use communication features of information technology.

### **Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes:**

- 10.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.
- 11.0 Develop skills to locate, evaluate, and interpret career information.
- 12.0 Identify and demonstrate processes for making short and long term goals.
- 13.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
- 14.0 Understand the relationship between educational achievement and career choices/postsecondary options.
- 15.0 Identify a career cluster and related pathways through an interest assessment that match career and education goals.
- 16.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
- 17.0 Demonstrate knowledge of technology and its application in career fields/clusters.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Business Keyboarding and Career Planning  
**Course Number:** 8200130  
**Course Length:** Semester

**Course Description:**

This course is designed to provide instruction in introductory keyboarding, introductory word processing, introductory electronic presentation, introductory computer hardware, introductory Internet, and soft skills for business applications. These competencies provide the skills necessary to ensure increased productivity and efficient utilization of equipment.

Activities including field trips and the use of guest presenters from the business community are appropriate for this course. These frameworks and student performance standards are the MINIMUM required for this course. As time allows, teachers are encouraged to add competencies in additional software and technologies.

<b>CTE Standards and Benchmarks</b>	
01.0	Identify and understand computer hardware. The student will be able to:
01.01	Define and identify input, output, and storage devices and their functions.
01.02	Define and identify memory in a computer.
02.0	Identify information technology tools and their proper uses. The student will be able to:
02.01	Define and identify various software applications (word processing, spreadsheets, database, presentation, digital publishing) and their uses.
03.0	Develop and apply keyboarding skills utilizing current technology. The student will be able to:
03.01	Demonstrate proper alphabet keyboarding techniques using correct ergonomic habits.
03.02	Demonstrate safety and respect for equipment and materials in lab.
03.03	Demonstrate proper techniques for keyboarding while keeping fingers on home row keys.

## CTE Standards and Benchmarks

04.0 Develop and apply word processing skills utilizing current technology. The student will be able to:

04.01 Start and exit word processing software.

04.02 Identify the parts of a word processing screen, e.g., ribbon, status bar, title bar, insertion point, scroll box and bar, and tabs.

04.03 Demonstrate ability to use and recognize the word processing window, including menus, toolbars, dialog boxes, tabs and ribbons.

04.04 Create and edit a new document.

04.05 Understand different views of document and using the zoom function.

04.06 Identify methods of moving the insertion point, i.e., arrow keys, backspace and delete.

04.07 Select and edit text.

04.08 Move text in a document using the copying/cutting/pasting and drag/drop text commands.

04.09 Format text by changing the font, size, color.

04.10 Align text horizontally and vertically.

04.11 Utilize the Undo and Redo commands.

04.12 Utilize the Show/Hide command.

04.13 Use basic proofreading skills including proofreader's marks.

04.14 Use spell/grammar check/thesaurus programs properly.

04.15 Understand the difference between Save and Save As.

04.16 Save, open and replace files.

## CTE Standards and Benchmarks

04.17 Utilize Print Preview and demonstrate printing capabilities.

04.18 Demonstrate efficient use of the Help program.

05.0 Develop and apply electronic presentation skills utilizing current technology. The student will be able to:

05.01 Start and exit presentation software.

05.02 Identify the parts of a presentation screen, e.g., ribbon, status bar, title bar, insertion point, scroll box and bar, and tabs.

05.03 Create a new presentation document.

05.04 Select design layout, background, a template and color scheme.

05.05 Edit text.

05.06 Format text and graphics.

05.07 Select order of frames.

05.08 Demonstrate ability to spell check, save and print presentation.

06.0 Develop and utilize business-related skills. The student will be able to:

06.01 Understand the importance of positive attitude in obtaining and maintaining a job.

06.02 Identify good grooming/dress habits for the workplace.

06.03 Develop problem solving skills.

06.04 Identify the benefits of teamwork.

06.05 Identify the importance of impromptu speaking ability in the workplace.

## CTE Standards and Benchmarks

06.06 Identify the importance of prepared speaking ability in the workplace.

07.0 Perform activities using the world wide web. The student will be able to:

07.01 Explore the history of the Internet.

07.02 Introduce Internet vocabulary such as hyperlink, WWW, URL, and web browser.

07.03 Understand basic principles of the Domain Name System (DNS).

07.04 Perform basic Internet searches.

07.05 Identify and use various web browsers.

07.06 Identify and use various search engines.

07.07 Evaluate websites.

07.08 Understand Favorites/Bookmarks.

07.09 Understand and demonstrate Internet safety.

07.10 Discuss Internet privacy, ethics, network etiquette and copyright laws.

08.0 Describe how information technology is used in the Business, Management and Administration career cluster. The student will be able to:

08.01 Identify through internet research information technology (IT) careers in the Business, Management and Administration career cluster, including the responsibilities, tasks and skills they require.

08.02 Identify security-related ethical and legal IT issues faced by professionals in the Business, Management and Administration career cluster.

09.0 Describe and use communication features of information technology. The student will be able to:

09.01 Identify and/or use various ways to communicate effectively using Internet technology, such as email, webcast, website, webpage, messaging, social networks, and blogging.

## CTE Standards and Benchmarks

09.02 Identify security and privacy issues related to the Internet, including passwords and information theft.

### **Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes:**

The student will be able to:

10.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.

11.0 Develop skills to locate, evaluate, and interpret career information.

12.0 Identify and demonstrate processes for making short and long term goals.

13.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.

14.0 Understand the relationship between educational achievement and career choices/postsecondary options.

15.0 Identify a career cluster and related pathways through an interest assessment that match career and education goals.

16.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.

17.0 Demonstrate knowledge of technology and its application in career fields/clusters.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students, including access to computers and appropriate software.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career Planning**

**Effective July 1, 2019, per Section 1003.4156, Florida Statutes (F.S.), for students to meet middle grades promotion requirements, a Career and Education Planning course must be completed in either sixth, seventh, or eighth grade.** These courses should be taught integrating the eight career and education planning course standards. The MyCareerShines powered by Kuder® career planning system is available free of charge to all Florida middle and high schools to assist students in completing research-based career assessments, exploring career options and developing an online academic and career plan.

### **Career and Technical Student Organization (CTSO)**

Future Business Leaders of America (FBLA) and Business Professionals of America (BPA) are the intercurricular career and technical student organizations providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.



## **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Course Title:** Computer Applications in Business 2  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Business Management and Administration

**Secondary – Middle School**

Course Number	8200210
CIP Number	05079999EX
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	FBLA BPA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Business Management and Administration career cluster. The content includes but is not limited to instruction in advanced keyboarding, advanced word processing, advanced hardware, advanced Internet, intermediate spreadsheet, introductory digital design, and skills for business applications. These competencies provide the skills necessary to ensure increased productivity and efficient utilization of equipment.

Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

## Course Structure

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8200210	Computer Applications in Business 2	BUS ED 1 @2 COMPU SCI 6 ENG&TEC ED1@2 TC COOP ED @7 TEC ED 1@2 VOE @7	Semester

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Develop and apply keyboarding skills utilizing current technology.
- 02.0 Develop and apply word processing skills utilizing current technology.
- 03.0 Develop and apply spreadsheet skills utilizing current technology.
- 04.0 Develop and apply digital design skills utilizing current technology.
- 05.0 Develop and utilize business-related skills.
- 06.0 Perform activities using the worldwide web.
- 07.0 Identify components of network systems.
- 08.0 Describe how information technology is used in the Business Management and Administration career cluster.
- 09.0 Describe and use communication features of information technology.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Computer Applications in Business 2  
**Course Number:** 8200210  
**Course Length:** Semester

**Course Description:**

This course is designed to provide instruction in advanced keyboarding, advanced word processing, advanced hardware, advanced Internet, intermediate spreadsheet, introductory digital design, and skills for business applications. These competencies provide the skills necessary to ensure increased productivity and efficient utilization of equipment.

<b>CTE Standards and Benchmarks</b>	
01.0	Develop keyboarding skills utilizing current technology. The student will be able to:
01.01	Demonstrate speed building using techniques for numeric and symbol keyboarding.
01.02	Demonstrate proper hand positioning for numeric keypad entries and symbol keyboarding.
02.0	Develop and apply word processing skills utilizing current technology. The student will be able to:
02.01	Create and format memos.
02.02	Create and format business letters using the block and/or modified block style.
02.03	Create and format one-page academic and/or business reports using Modern Language Association (MLA) style.
02.04	Use basic proofreading skills including using proofreader’s marks.
02.05	Identify how to address and print envelopes.
02.06	Insert a hyperlink into a document.
02.07	Understand and use Read-Only documents.
02.08	Work with multi-page documents: insert page breaks.
02.09	Format columns within a document.
02.10	Work with document templates.

## CTE Standards and Benchmarks

02.11 Open and work with multiple documents.

03.0 Develop and apply spreadsheet skills utilizing current technology. The student will be able to:

03.01 Insert and delete rows and columns.

03.02 Clear and delete data.

03.03 Copy and move data.

03.04 Fill the same data in adjacent cells.

03.05 Fill data series in adjacent cells

03.06 Hide and unhide columns and rows.

03.07 Freeze and unfreeze columns and rows.

03.08 Sort data.

03.09 Print the worksheet, with and without grids.

03.10 Create a chart.

04.0 Develop and apply digital design skills utilizing current technology. The student will be able to:

04.01 Demonstrate ability to launch digital design software.

04.02 Create a new document from a template (e.g., newsletters, brochures, greeting cards, letterhead, or flyers).

04.03 Identify menus and toolbars of digital design software.

04.04 Apply design layout and color scheme.

04.05 Apply styles and borders.

04.06 Insert a text box, word art and graphics.

04.07 Apply formatting to a text box, word art and graphics.

04.08 Edit text and layouts.

04.09 Demonstrate the ability to spell check, save, and print a document.

## CTE Standards and Benchmarks

05.0 Develop and utilize business-related skills. The student will be able to:

05.01 Determine why a positive attitude is necessary for success in the workplace.

05.02 Compare grooming/dress standards in various workplace environments.

05.03 Use problem solving skills to identify computer problems.

05.04 Apply teamwork in the classroom.

05.05 Perform an impromptu and/ or prepared presentation.

05.06 Prepare a resume and cover letter.

05.07 Prepare a thank you letter to a potential employer.

05.08 Discuss job searching skills.

05.09 Identify employment benefits.

05.10 Understand labor laws.

05.11 Understand appropriate procedures for changing jobs.

05.12 Complete a job application.

05.13 Demonstrate skills and appropriate dress/attire necessary for a successful job interview.

06.0 Identify components of network systems. The student will be able to:

06.01 Identify structure to access internet, including hardware and software components.

06.02 Identify user customization features in web browsers, including preferences, caching, bookmarks/ favorites and cookies.

06.03 Define database and identify how it is used in the business environment.

07.0 Perform activities using the worldwide web. The student will be able to:

07.01 Identify basic principles of the Domain Name System (DNS).

07.02 Perform advanced searches using Boolean operators.

07.03 Discuss email, email attachments, address book, and calendars.

## CTE Standards and Benchmarks

07.04 Discuss instant messaging.

08.0 Describe how information technology is used in the Business Management and Administration career cluster. The student will be able to:

08.01 Identify through internet research information technology (IT) careers in the Business Management and Administration career cluster, including the responsibilities, tasks and skills they require.

08.02 Identify security-related ethical and legal IT issues faced by professionals in the Business Management and Administration career cluster.

09.0 Describe and use communication features of information technology. The student will be able to:

09.01 Define important internet communications protocols and their roles in delivering basic Internet services.

09.02 Identify security and privacy issues related to the Internet, including passwords and information theft.

09.03 Demonstrate ways to communicate effectively using Internet technology, such as email, webcast, website, webpage, messaging, social networks, and blogging.



## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students, including access to computers and appropriate software.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

Future Business Leaders of America (FBLA) and Business Professionals of America (BPA) are the intercurricular career and technical student organizations providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

Course Title: Computer Applications in Business 3  
Course Type: Orientation/Exploratory  
Career Cluster: Business Management and Administration

**Secondary – Middle School**

Course Number	8200211
CIP Number	0507999903
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <u>Course Structure</u> section.
CTSO	FBLA BPA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Business Management and Administration career cluster. The content includes but is not limited to instruction in advanced spreadsheet, intermediate digital design, introductory database, introductory web design, and skills for business applications. These competencies provide the skills necessary to ensure increased productivity and efficient utilization of equipment.

Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

## Course Structure

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8200211	Computer Applications in Business 3	BUS ED 1 @2 CLERICAL @7 7 G COMPU SCI 6 SECRETAR 7 G TC COOP ED @7 VOE @7	Semester

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Identify information technology tools and their proper uses.
- 02.0 Develop and apply spreadsheet skills utilizing current technology.
- 03.0 Develop and apply digital design skills utilizing current technology.
- 04.0 Develop and apply database skills utilizing current technology.
- 05.0 Develop and apply web design skills utilizing current technology.
- 06.0 Develop and utilize business-related skills.
- 07.0 Identify components of network systems.
- 08.0 Describe how information technology is used in the Business Management and Administration career cluster.
- 09.0 Describe and use communication features of information technology.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Computer Applications in Business 3  
**Course Number:** 8200211  
**Course Length:** Semester

**Course Description:**

This course is designed to provide instruction in advanced spreadsheet, intermediate digital design, introductory database, introductory web design, and skills for business applications. These competencies provide the skills necessary to ensure increased productivity and efficient utilization of equipment.

<b>CTE Standards and Benchmarks</b>	
01.0	Develop and apply spreadsheet skills utilizing current technology. The student will be able to:
01.01	Apply cell borders and shading.
01.02	Add a header and footer.
01.03	Rotate text in a cell.
01.04	Create a formula using mathematical operations.
01.05	Create a formula using more than one mathematical operation.
01.06	Create a formula finding maximum, minimum and average.
01.07	Format a chart changing the font size, component colors and rotation of charts for graphical emphasis.
01.08	Insert a picture in a worksheet.
02.0	Develop and apply digital design skills utilizing current technology. The student will be able to:
02.01	Apply special formatting including, but not limited to adding gradients to frames, text wrapping and positioning.
02.02	Insert graphics from files.
02.03	Create new document without using templates.
02.04	Ability to save graphics to file.

## CTE Standards and Benchmarks

02.05 Demonstrate proficiency in advanced print layout options.

03.0 Develop and apply database skills utilizing current technology. The student will be able to:

03.01 Start and exit database software. Save a database in various formats i.e., file types.

03.02 Identify the parts of the database screen.

03.03 View the database window and use the navigation pane. Open an object in design view or layout view.

03.04 Create a table.

03.05 Enter records in datasheet view.

03.06 Change the column width in a datasheet. Use hide, unhide, freeze and unfreeze fields.

03.07 Add and delete fields and create relationships between tables.

03.08 Create and modify fields, for example specify text, numbers, currency, and yes/no.

03.09 Sort and filter record (use autofilter, filter by selection, and by form).

03.10 Create a report.

04.0 Develop and apply web design skills utilizing current technology. The student will be able to:

04.01 Identify and describe the various components of the Internet, including, WWW, email, FTP, and URL.

04.02 Understand the difference between web browser and search engine.

04.03 Describe the difference between a client and the various types of servers, including web servers.

04.04 Follow copyright laws.

04.05 Demonstrate an understanding of file storage and the path to describe the location of a document.

04.06 Describe how XHTML has altered the structure of HTML.

04.07 Identify and describe basic HTML/ XHTML terminology.

04.08 Identify and describe basic HTML/ XHTML tags.

04.09 Identify the elements of a webpage.

## CTE Standards and Benchmarks

04.10 Produce a webpage using basic HTML tags, including but not limited to, links, anchors, lists, tables, background and fonts.

04.11 Include graphics in a webpage.

04.12 Use the Internet to find free components for a webpage such as Javascript, java applets, and banners.

04.13 Create a webpage for others to see.

05.0 Develop and utilize business-related skills. The student will be able to:

05.01 Classify characteristics of a positive attitude in the workplace.

05.02 Understand the importance of proper grooming and appearance for the workplace.

05.03 Apply problem solving skills to troubleshoot computer problems.

05.04 Identify brainstorming techniques.

05.05 Apply impromptu and/or prepared presentation skills.

05.06 Research sources of employment.

05.07 List employment benefits.

05.08 Identify child labor laws.

05.09 Identify appropriate procedures for changing jobs.

05.10 Discuss importance of being prepared to complete a job application.

05.11 Discuss employer expectations toward prospective and current employees.

05.12 Discuss the value of sharpening technology skills as the workplace environment changes.

05.13 Prepare a list of strategies for communicating in multicultural settings.

05.14 Analyze the importance of good work habits for success in the workplace.

06.0 Identify information technology tools and their proper uses. The student will be able to:

06.01 Define and identify various software applications (word processing, spreadsheets, database, presentation, digital publishing) and their uses.

06.02 Identify the functions of web browsers, and use them to access the World Wide Web and other computer resources typically used in the Business, Management and Administration career cluster.



## CTE Standards and Benchmarks

06.03	Use different web search engines effectively to locate information relevant to the Business, Management and Administration career cluster.
06.04	Understand how email clients send simple messages and files to other Internet users.
07.0	Identify components of network systems. The student will be able to:
07.01	Identify structure to access internet, including hardware and software components.
07.02	Identify user customization features in web browsers, including preferences, caching, bookmarks/ favorites and cookies.
07.03	Recognize essential database concepts.
08.0	Describe how information technology is used in the Business Management and Administration career cluster. The student will be able to:
08.01	Identify through Internet research information technology (IT) careers in the Business Management and Administration career cluster, including the responsibilities, tasks and skills they require.
08.02	Identify security-related ethical and legal IT issues faced by professionals in the Business Management and Administration career cluster.
09.0	Describe and use communication features of information technology. The student will be able to:
09.01	Define important Internet communications protocols and their roles in delivering basic Internet services.
09.02	Identify basic principles of the Domain Name System (DNS).
09.03	Identify security issues related to Internet clients.
09.04	Identify and use principles of personal information management (PIM), including common applications.
09.05	Identify and understand webcasting and related services.
09.06	Demonstrate ways to communicate effectively using Internet technology, such as email, webcast, websites, webpage, messaging, social networks, and blogging.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students, including access to computers and appropriate software.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

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### **Special Notes**

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### **Career and Technical Student Organization (CTSO)**

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### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Course Title:** Computer Applications in Business 4  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Business Management and Administration

**Secondary – Middle School**

Course Number	8200212
CIP Number	0507999904
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	FBLA BPA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Business Management and Administration career cluster. The content includes but is not limited to instruction in intermediate database, intermediate web design, introductory programming, and skills for business applications. These competencies provide the skills necessary to ensure increased productivity and efficient utilization of equipment.

Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

## Course Structure

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8200212	Computer Applications in Business 4	BUS ED 1 @2 CLERICAL @7 7 G COMPU SCI 6 SECRETAR 7 G TC COOP ED @7 VOE @7	Semester

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Identify information technology tools and their proper uses.
- 02.0 Develop and apply database skills utilizing current technology.
- 03.0 Develop and apply web design skills utilizing current technology.
- 04.0 Develop and apply programming skills utilizing current technology.
- 05.0 Develop and utilize business-related skills.
- 06.0 Identify components of network systems.
- 07.0 Describe how information technology is used in the Business Management and Administration career cluster.
- 08.0 Describe and use communication features of information technology.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Computer Applications in Business 4  
**Course Number:** 8200212  
**Course Length:** Semester

**Course Description:**

This course is designed to provide instruction in intermediate database, intermediate web design, introductory programming, and soft skills for business applications. These competencies provide the skills necessary to ensure increased productivity and efficient utilization of equipment.

<b>CTE Standards and Benchmarks</b>	
01.0	Identify information technology tools and their proper uses. The student will be able to:
01.01	Identify the functions of web browsers, and use them to access the World Wide Web and other computer resources typically used in the Business, Management and Administration career cluster.
01.02	Understand how e-mail clients send simple messages and files to other Internet users.
01.03	Use different web search engines effectively to locate information relevant to the Business, Management and Administration career cluster.
01.04	Define and identify various software applications (word processing, spreadsheets, database, presentation, digital publishing) and their uses.
02.0	Develop and apply database skills utilizing current technology. The student will be able to:
02.01	Start and exit a database software.
02.02	Use the navigation pane/change the view of an objects in the navigation pane.
02.03	Create a database from a template
02.04	Edit records in datasheet view.
02.05	Add and delete records in datasheet view.

## CTE Standards and Benchmarks

02.06 Cut, copy, and paste data in datasheet view.

02.07 Change the datasheet layout.

02.08 Hide columns in a table.

02.09 Create a table in design view/create and modify fields (or a field) in a datasheet.

02.10 Create a form and enter and edit data in a form.

02.11 Use form layout tools to modify a database design, arrangement and format (themes, fonts, colors).

02.12 Create a query. Save a database in a different format (i.e., file types).

03.0 Develop and apply web design skills utilizing current technology. The student will be able to:

03.01 Produce a Web page using basic HTML tags, including but not limited to, links, anchors, lists, tables, background and fonts.

03.02 Define principles of acceptable web design.

03.03 Understand how different web browsers interpret pages.

03.04 Understand the role of plug-ins.

03.05 Understand graphic, audio, and movie file formats and how they affect file size.

03.06 Use animated graphics, audio and video files in a webpage.

03.07 Use image editing software to create and edit images.

03.08 Demonstrate an understanding of compressing and decompressing files.

03.09 Understand the importance of regular file backup.



## CTE Standards and Benchmarks

03.10 Create a webpage for others to see.

04.0 Develop and apply programming skills utilizing current technology. The student will be able to:

04.01 Give a brief history of computers.

04.02 Describe how hardware and software make up computer architecture.

04.03 Understand the binary representation of data and programs in computers.

04.04 Discuss the evolution of programming languages.

04.05 Describe the software development process.

04.06 Describe the fundamental concepts of object-oriented programming.

04.07 Discuss the importance of the selected programming language.

04.08 Describe the structure of a simple program.

04.09 Write a simple program.

04.10 Edit, compile, and run a program.

04.11 Format a program for visual effects.

04.12 Identify compile-time errors.

05.0 Develop and utilize business-related skills. The student will be able to:

05.01 Classify the characteristics of a positive attitude in the workplace.

05.02 Understand the importance of proper grooming and appearance for the workplace.

## CTE Standards and Benchmarks

05.03 Utilize problem solving skills in programming areas.

05.04 Utilize brainstorming techniques to solve a problem.

05.05 Apply impromptu and/or prepared presentation skills.

05.06 Research sources of employment.

05.07 Discuss employment benefits.

05.08 Discuss child labor laws.

05.09 Evaluate appropriate procedures for changing jobs.

05.10 Evaluate a quality completed job application.

05.11 Identify characteristics of ethical behavior in the workplace.

05.12 Understand the importance of personal integrity in the workplace.

05.13 Develop an understanding of the skills that transfer from school to work.

06.0 Identify components of network systems. The student will be able to:

06.01 Identify structure to access internet, including hardware and software components.

06.02 Identify user customization features in web browsers, including preferences, caching, bookmarks/ favorites and cookies.

06.03 Recognize essential database concepts.

07.0 Describe how information technology is used in the Business Management and Administration career cluster. The student will be able to:

07.01 Identify through Internet research information technology (IT) careers in the Business Management and Administration career cluster, including the responsibilities, tasks and skills they require.

## CTE Standards and Benchmarks

07.02 Identify security-related ethical and legal IT issues faced by professionals in the Business Management and Administration career cluster.

08.0 Describe and use communication features of information technology. The student will be able to:

08.01 Define important Internet communications protocols and their roles in delivering basic Internet services.

08.02 Identify basic principles of the Domain Name System (DNS).

08.03 Identify security issues related to Internet clients.

08.04 Identify and use principles of personal information management (PIM), including common applications.

08.05 Identify and understand webcasting and related services.

08.06 Demonstrate ways to communicate effectively using Internet technology, such as email, webcast, website, webpage, messaging, social networks, and blogging.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students, including access to computers and appropriate software.

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### **Special Notes**

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In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Course Title:** Computer Applications in Business 1 and Career Planning  
**Course Type:** Orientation/Exploratory and Career Planning  
**Career Cluster:** Business Management and Administration

**Secondary – Middle School**

Course Number	8200220
CIP Number	05079999CE
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	FBLA BPA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Business Management and Administration career cluster. The content includes but is not limited to instruction in intermediate keyboarding, intermediate word processing, intermediate electronic presentation, intermediate computer hardware, intermediate Internet, introductory spreadsheet, and skills for business applications.

Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

## Course Structure

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8200220	Computer Applications in Business 1 and Career Planning	BUS ED 1 @2 COMPU SCI 6 ENG&TEC ED1@2 TC COOP ED @7 TEC ED 1@2 VOE @7	Semester

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Identify and understand computer hardware.
- 02.0 Identify information technology tools and their proper uses.
- 03.0 Develop and apply keyboarding skills utilizing current technology.
- 04.0 Develop and apply word processing skills utilizing current technology.
- 05.0 Develop and apply electronic presentation skills utilizing current technology.
- 06.0 Develop and apply spreadsheet skills utilizing current technology.
- 07.0 Develop and utilize business-related skills.
- 08.0 Perform activities using the worldwide web.
- 09.0 Describe how information technology is used in the Business, Management and Administration career cluster.
- 10.0 Describe and use communication features of information technology.

### **Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes:**

- 11.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.
- 12.0 Develop skills to locate, evaluate, and interpret career information.
- 13.0 Identify and demonstrate processes for making short and long term goals.
- 14.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
- 15.0 Understand the relationship between educational achievement and career choices/postsecondary options.
- 16.0 Identify a career cluster and related pathways through an interest assessment that match career and education goals.
- 17.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
- 18.0 Demonstrate knowledge of technology and its application in career fields/clusters.



**Florida Department of Education  
Student Performance Standards**

**Course Title:** Computer Applications in Business 1 and Career Planning  
**Course Number:** 8200220  
**Course Length:** Semester

**Course Description:**

This course is designed to provide instruction in intermediate keyboarding, intermediate word processing, intermediate electronic presentation, intermediate computer hardware, intermediate Internet, introductory spreadsheet, and skills for business applications. These competencies provide the skills necessary to ensure increased productivity and efficient utilization of equipment.

<b>CTE Standards and Benchmarks</b>	
01.0	Identify and understand computer hardware. The student will be able to:
01.01	Define and identify input, output, and storage devices and their functions.
01.02	Define and identify memory in a computer.
02.0	Identify information technology tools and their proper uses. The student will be able to:
02.01	Define and identify various software applications (word processing, spreadsheets, database, presentation, digital publishing) and their uses.
03.0	Develop and apply keyboarding skills utilizing current technology. The student will be able to:
03.01	Demonstrate proper keyboarding techniques using correct ergonomic habits.
03.02	Demonstrate safety and respect for equipment materials in lab.
03.03	Demonstrate proper techniques for alphanumeric keyboarding while keeping fingers on home row keys.

## CTE Standards and Benchmarks

04.0 Develop and apply word processing skills utilizing current technology. The student will be able to:

04.01 Start and exit word processing software.

04.02 Apply different views to a document – select zoom options, document view, split windows, arrange windows, and switch windows.

04.03 Move text in a document using the copying/cutting/pasting and drag/drop text commands.

04.04 Apply tabs, line spacing and paragraph indents.

04.05 Align text horizontally and vertically.

04.06 Apply character attributes – font, font size, font color, underline, bold, italic, and text effects.

04.07 Apply styles in a document.

04.08 Utilize the undo and redo commands.

04.09 Utilize the show/hide command.

04.10 Use find and replace.

04.11 Utilize the format painter.

04.12 Utilize the text highlight feature in a document – select highlight color.

04.13 Insert date and time.

04.14 Insert and manipulate graphics, word art and text boxes.

04.15 Insert and remove a manual page break in a document.

04.16 Create bulleted and numbered lists.

## CTE Standards and Benchmarks

04.17 Create a table – inserting, moving, and entering data.

04.18 Format a table – insert/delete columns, rows, and cells and merge cells.

04.19 Format a table – changing column/row width/height.

04.20 Apply table alignment on document horizontally and vertically.

04.21 Apply text and number alignment within a table.

04.22 Use table tools to change table styles, apply borders, and shading.

04.23 Set the page layout in a document – margins, page orientation, and page size.

04.24 Change the page background – insert a watermark, page border, and change the page color.

04.25 Create headers and footers in a document.

04.26 Use spell/grammar check/thesaurus programs properly.

04.27 Use basic proofreading skills including proofreader's marks.

04.28 Understand the difference between save and save as.

04.29 Save a document – specify file name and location.

04.30 Save a document in a different format, e.g., PDF, Web page, and jpeg.

04.31 Understand printing options including printer selection, scale to fit, and page number selection.

05.0 Develop and apply electronic presentation skills utilizing current technology. The student will be able to:

05.01 Start and exit presentation software.

## CTE Standards and Benchmarks

05.02 Apply fill effects, lines and shapes.

05.03 Demonstrate ability to order, group and rotate objects.

05.04 Demonstrate ability to animate graphics.

05.05 Apply slide transitions and timings.

05.06 Incorporate text, tables, charts and graphic transitions into document.

05.07 Add sound using various media e.g. internet and/or files.

05.08 Apply action buttons.

05.09 Insert a hyperlink.

05.10 Rearrange slide order through slide sorter.

05.11 Create note page to aid in oral presentation of slide show.

05.12 Customize timing and rehearsing to coordinate with oral presentation.

05.13 Save a presentation in a different format, e.g., PDF and webpage.

05.14 Demonstrate the ability to spell check and print presentations using different settings.

05.15 Demonstrate presentation skills.

06.0 Develop and apply spreadsheet skills utilizing current technology. The student will be able to:

06.01 Start and exit spreadsheet software.

06.02 Identify the parts of the spreadsheet screen, e.g., ribbon, status bar, title bar, insertion point, scroll box and bar, and tabs.

## CTE Standards and Benchmarks

06.03 Create a new worksheet.

06.04 Change column width and row height.

06.05 Format the contents of a cell, i.e., change fonts and font sizes, align text, and format numbers.

06.06 Merge cells.

06.07 Use undo and redo commands.

06.08 Autoformat the worksheet if available. autoformat applies borders, shading, and data formatting.

06.09 Use the auto sum feature.

06.10 Create a chart.

07.0 Develop and utilize business-related skills. The student will be able to:

07.01 Demonstrate an understanding of the importance of a positive attitude in obtaining and maintaining a job.

07.02 Identify grooming/dress standards in various workplace environments.

07.03 Demonstrate problem solving skills.

07.04 Demonstrate an awareness of teamwork.

07.05 Make an impromptu presentation.

07.06 Make a prepared presentation.

07.07 Collaborate and effectively use teamwork to present in a group.

## CTE Standards and Benchmarks

08.0 Perform activities using the worldwide web. The student will be able to:

08.01 Identify and define Internet vocabulary such as hyperlink, WWW, URL, and web browser.

08.02 Understand basic principles of the Domain Name System (DNS).

08.03 Perform basic Internet searches.

08.04 Identify and use various web browsers.

08.05 Copy and paste from browser to other applications.

08.06 Identify and use various search engines.

08.07 Evaluate websites.

08.08 Understand favorites/ bookmarks.

08.09 Understand and demonstrate Internet safety.

08.10 Discuss Internet privacy, ethics, network etiquette and copyright laws.

08.11 Download files.

08.12 Download graphics.

09.0 Describe how information technology is used in the Business, Management and Administration career cluster. The student will be able to:

09.01 Identify through internet research information technology (IT) careers in the Business, Management and Administration career cluster, including the responsibilities, tasks and skills they require.

09.02 Identify security-related ethical and legal IT issues faced by professionals in the Business, Management and Administration career cluster.

## CTE Standards and Benchmarks

10.0 Describe and use communication features of information technology. The student will be able to:

10.01 Identify security and privacy issues related to the Internet, including passwords and information theft.

10.02 Identify and/or use various ways to communicate effectively using internet technology, such as email, webcast, website, webpage, messaging, social networks, and blogging.

### **Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes:**

The student will be able to:

11.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.

12.0 Develop skills to locate, evaluate, and interpret career information.

13.0 Identify and demonstrate processes for making short and long term goals.

14.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.

15.0 Understand the relationship between educational achievement and career choices/postsecondary options.

16.0 Identify a career cluster and related pathways through an interest assessment that match career and education goals.

17.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.

18.0 Demonstrate knowledge of technology and its application in career fields/clusters.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students, including access to computers and appropriate software.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career Planning**

**Effective July 1, 2019, per Section 1003.4156, Florida Statutes (F.S.), for students to meet middle grades promotion requirements, a Career and Education Planning course must be completed in either sixth, seventh, or eighth grade.** These courses should be taught integrating the eight career and education planning course standards. The MyCareerShines powered by Kuder® career planning system is available free of charge to all Florida middle and high schools to assist students in completing research-based career assessments, exploring career options and developing an online academic and career plan.

### **Career and Technical Student Organization (CTSO)**

Future Business Leaders of America (FBLA) and Business Professionals of America (BPA) are the intercurricular career and technical student organizations providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.



## **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

Course Title: Computer Applications in Business 1  
Course Type: Orientation/Exploratory  
Career Cluster: Business Management and Administration

**Secondary – Middle School**

Course Number	8200520
CIP Number	05079999MS
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b>Course Structure</b> section.
CTSO	FBLA BPA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Business Management and Administration career cluster. The content includes but is not limited to instruction in intermediate keyboarding, intermediate word processing, intermediate electronic presentation, intermediate computer hardware, intermediate Internet, introductory spreadsheet, and skills for business applications. These competencies provide the skills necessary to ensure increased productivity and efficient utilization of equipment.

Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

## **Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

<b>Course Number</b>	<b>Course Title</b>	<b>Teacher Certification</b>	<b>Length</b>
8200520	Computer Applications in Business 1	BUS ED 1 @2 COMPU SCI 6 ENG&TEC ED1@2 TC COOP ED @7 TEC ED 1@2 VOE @7	Semester

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Identify and understand computer hardware.
- 02.0 Identify information technology tools and their proper uses.
- 03.0 Develop and apply keyboarding skills utilizing current technology.
- 04.0 Develop and apply word processing skills utilizing current technology.
- 05.0 Develop and apply electronic presentation skills utilizing current technology.
- 06.0 Develop and apply spreadsheet skills utilizing current technology.
- 07.0 Develop and utilize business-related skills.
- 08.0 Perform activities using the worldwide web.
- 09.0 Describe how information technology is used in the Business, Management and Administration career cluster.
- 10.0 Describe and use communication features of information technology.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Computer Applications in Business 1  
**Course Number:** 8200520  
**Course Length:** Semester

**Course Description:**

This course is designed to provide instruction in intermediate keyboarding, intermediate word processing, intermediate electronic presentation, intermediate computer hardware, intermediate Internet, introductory spreadsheet, and business applications skills. These competencies provide the skills necessary to ensure increased productivity and efficient utilization of equipment.

<b>CTE Standards and Benchmarks</b>	
01.0	Identify and understand computer hardware. The student will be able to:
01.01	Define and identify input, output, and storage devices and their functions.
01.02	Define and identify memory in a computer.
02.0	Identify information technology tools and their proper uses. The student will be able to:
02.01	Define and identify various software applications (word processing, spreadsheets, database, presentation, digital publishing) and their uses.
03.0	Develop and apply keyboarding skills utilizing current technology. The student will be able to:
03.01	Demonstrate proper keyboarding techniques using correct ergonomic habits.
03.02	Demonstrate safety and respect for equipment materials in lab.
03.03	Demonstrate proper techniques for alphanumeric keyboarding while keeping fingers on home row keys.
04.0	Develop and apply word processing skills utilizing current technology. The student will be able to:
04.01	Start and exit word processing software.
04.02	Apply different views to a document – select zoom options, document view, split windows, arrange windows, and switch windows.
04.03	Move text in a document using the copying/cutting/pasting and drag/drop text commands.
04.04	Apply tabs, line spacing and paragraph indents.

## CTE Standards and Benchmarks

04.05 Align text horizontally and vertically.

04.06 Apply character attributes – font, font size, font color, underline, bold, italic, and text effects.

04.07 Apply styles in a document.

04.08 Utilize the undo and redo commands.

04.09 Utilize the show/hide command.

04.10 Use find and replace.

04.11 Utilize the format painter.

04.12 Utilize the text highlight feature in a document – select highlight color.

04.13 Insert date and time.

04.14 Insert and manipulate graphics, word art and text boxes.

04.15 Insert and remove a manual page break in a document.

04.16 Create bulleted and numbered lists.

04.17 Create a table – inserting, moving, and entering data.

04.18 Format a table – insert/delete columns, rows, and cells and merge cells.

04.19 Format a table – changing column/ row width/ height.

04.20 Apply table alignment on document – horizontally and vertically.

04.21 Apply text and number alignment within a table.

04.22 Use table tools – change table styles, apply borders, and shading.

04.23 Set the page layout in a document – margins, page orientation, and page size.

04.24 Change the page background – insert a watermark, page border, and change the page color.

04.25 Create headers and footers in a document.

04.26 Use spell/grammar check/thesaurus programs properly.

## CTE Standards and Benchmarks

04.27 Use basic proofreading skills including proofreader's marks.

04.28 Understand the difference between save and save as.

04.29 Save a document – specify file name and location.

04.30 Save a document in a different format, e.g., PDF, webpage, and jpeg.

04.31 Understand printing options including printer selection, scale to fit, and page number selection.

05.0 Develop and apply electronic presentation skills utilizing current technology. The student will be able to:

05.01 Start and exit presentation software.

05.02 Apply fill effects, lines and shapes.

05.03 Demonstrate ability to order, group and rotate objects.

05.04 Demonstrate ability to animate graphics.

05.05 Apply slide transitions and timings.

05.06 Incorporate text, tables, charts and graphic transitions into document.

05.07 Add sound using various media e.g., internet and/or files.

05.08 Apply action buttons.

05.09 Insert a hyperlink.

05.10 Rearrange slide order through slide sorter.

05.11 Create note page to aid in oral presentation of slide show.

05.12 Customize timing and rehearsing to coordinate with oral presentation.

05.13 Save a presentation in a different format, e.g., PDF and webpage.

05.14 Demonstrate the ability to spell check and print presentations using different settings.

05.15 Demonstrate presentation skills.

## CTE Standards and Benchmarks

06.0 Develop and apply spreadsheet skills utilizing current technology. The student will be able to:

06.01 Start and exit spreadsheet software.

06.02 Identify the parts of the spreadsheet screen, e.g., ribbon, status bar, title bar, insertion point, scroll box and bar, and tabs.

06.03 Create a new worksheet.

06.04 Change column width and row height.

06.05 Format the contents of a cell, i.e., change fonts and font sizes, align text, and format numbers.

06.06 Merge cells.

06.07 Use undo and redo commands.

06.08 AutoFormat the worksheet if available. AutoFormat applies borders, shading, and data formatting.

06.09 Use the auto sum feature.

06.10 Create a chart.

07.0 Develop and utilize business-related skills. The student will be able to:

07.01 Demonstrate an understanding of the importance of a positive attitude in obtaining and maintaining a job.

07.02 Identify grooming/dress standards in various workplace environments.

07.03 Demonstrate problem solving skills.

07.04 Demonstrate an awareness of teamwork.

07.05 Make an impromptu presentation.

07.06 Make a prepared presentation.

07.07 Collaborate and effectively use teamwork to present in a group.

08.0 Perform activities using the worldwide web. The student will be able to:

08.01 Identify and define Internet vocabulary such as hyperlink, WWW, URL, and web browser.

08.02 Understand basic principles of the Domain Name System (DNS).



## CTE Standards and Benchmarks

08.03	Perform basic Internet searches.
08.04	Identify and use various web browsers.
08.05	Copy and paste from browser to other applications.
08.06	Identify and use various search engines.
08.07	Evaluate websites.
08.08	Understand favorites/bookmarks.
08.09	Understand and demonstrate Internet safety.
08.10	Discuss Internet privacy, ethics, network etiquette and copyright laws.
08.11	Download files.
08.12	Download graphics.
09.0	Describe how information technology is used in the Business, Management and Administration career cluster. The student will be able to:
09.01	Identify through internet research information technology (IT) careers in the Business, Management and Administration career cluster, including the responsibilities, tasks and skills they require.
09.02	Identify security-related ethical and legal IT issues faced by professionals in the Business, Management and Administration career cluster.
10.0	Describe and use communication features of information technology. The student will be able to:
10.01	Identify security and privacy issues related to the Internet, including passwords and information theft.
10.02	Identify and/or use various ways to communicate effectively using internet technology, such as email, webcast, website, webpage, messaging, social networks, and blogging.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students, including access to computers and appropriate software.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

Future Business Leaders of America (FBLA) and Business Professionals of America (BPA) are the intercurricular career and technical student organizations providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Course Title:** Careers in Fashion and Interior Design  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Arts, A/V Technology and Communication

**Secondary – Middle School**

Course Number	8209100
CIP Number	0404050107
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	FCCLA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Arts, A/V Technology and Communication career cluster. The content includes, but is not limited to, the development of leadership skills, communication skills, and employability skills; resource management; exploration of design careers; working with textiles and elements of design; basic sewing skills; making clothing choices; technology in the design industry; and, the completion of projects related to fashion and interior design. Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

## **Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8209100	Careers in Fashion and Interior Design	FAM CON SC 1	Semester

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate leadership skills.
- 02.0 Demonstrate employability skills as they relate to the design industry.
- 03.0 Demonstrate effective communication skills.
- 04.0 Analyze careers in the design industry.
- 05.0 Select and use tools and equipment.
- 06.0 Identify characteristics and care of textiles.
- 07.0 Explain the elements and principles of design.
- 08.0 Explain how environmental factors impact design.
- 09.0 Demonstrate basic sewing skills.
- 10.0 Analyze clothing choices.
- 11.0 Develop a project related to fashion.
- 12.0 Analyze interior design choices.
- 13.0 Develop a project related to interior design.
- 14.0 Utilize technology as it relates to the design industry.
- 15.0 Demonstrate the skills involved in effective resource management.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Careers in Fashion and Interior Design  
**Course Number:** 8209100  
**Course Length:** Semester

**Course Description:**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in interior design and fashion design. The content includes, but is not limited to, the development of leadership skills, communication skills, and employability skills; resource management; exploration of design careers; working with textiles and elements of design; basic sewing skills; making clothing choices; technology in the design industry; and, the completion of projects related to fashion and interior design.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate leadership skills – the student will be able to:
01.01	Identify roles and responsibilities of members of professional and community service organizations, including career and technical student organizations.
01.02	Work cooperatively as a group member to achieve organizational goals.
01.03	Demonstrate leadership roles and organizational responsibilities.
01.04	Identify and utilize the planning process.
01.05	Develop a personal growth project.
02.0	Demonstrate employability skills as they relate to the design industry – the student will be able to:
02.01	Identify personal talents and abilities that can contribute to positive self-esteem and success in the workplace.
02.02	Practice teamwork skills.
02.03	Practice employability skills.
02.04	Practice positive work ethics and identify negative work ethics.
02.05	Exhibit work expectations of an employer in the design industry.
02.06	Apply math, reading, science, and critical thinking skills as they relate to the design industry.
03.0	Demonstrate effective communication skills – the student will be able to:

## CTE Standards and Benchmarks

03.01 Describe why communication is the basis for all relationships.

03.02 Distinguish between non-assertive, assertive, and aggressive communication.

03.03 Demonstrate communication skills that promote positive relationships in the workplace.

03.04 Practice active listening skills.

03.05 Utilize conflict resolution skills.

04.0 Analyze careers in the design industry – the student will be able to:

04.01 Describe careers in the design industry.

04.02 Classify careers from entry level to professional level.

04.03 Explore entrepreneurship opportunities in the design industry.

04.04 Research and present information on a design career to include roles and responsibilities, employment opportunities and requirements for education and training.

05.0 Select and use tools and equipment – the student will be able to:

05.01 Identify and select the appropriate tool for an assignment.

05.02 Demonstrate the proper and safe use of tools and equipment.

05.03 Practice care and maintenance of tools and equipment.

06.0 Identify characteristics and care of textiles – the student will be able to:

06.01 Identify a variety of fabrics through tactile activities.

06.02 Compare and contrast natural and synthetic fabrics.

06.03 Recognize types of fabric construction.

06.04 Identify fabrics appropriate for various purposes.

07.0 Explain the elements and principles of design – the student will be able to:

07.01 Define and illustrate the elements of design.

07.02 Describe a color wheel and its use in design.

07.03 Recognize basic color schemes.

## CTE Standards and Benchmarks

07.04 Research the psychology of color.

07.05 Define and illustrate the principles of design.

08.0 Explain how environmental factors impact design – the student will be able to:

08.01 Define green design, sustainable design, and life cycle cost.

08.02 Research eco-friendly design products.

08.03 Examine the positive and negative impact that a design product has on the environment.

09.0 Demonstrate basic sewing skills – the student will be able to:

09.01 Identify and give the purpose of sewing machine parts.

09.02 Demonstrate math skills as they relate to sewing.

09.03 Demonstrate the threading of a sewing machine.

09.04 Demonstrate straight stitching.

09.05 Identify and demonstrate various stitch length and width selections.

09.06 Interpret written instructions and construct a basic sewing project.

10.0 Analyze clothing choices – the student will be able to:

10.01 Explain the impact of trends and social climates on fashion styles.

10.02 Identify appropriate clothing styles for various events.

10.03 Identify factors that impact clothing costs.

10.04 Demonstrate the procedure for recording accurate body measurements.

10.05 Analyze proper fit.

11.0 Develop a project related to fashion – the student will be able to:

11.01 Select materials and supplies for a fashion project.

11.02 Calculate the costs of a given fashion project.

11.03 Interpret written directions for constructing a fashion project.



## CTE Standards and Benchmarks

11.04 Apply math skills and construct a fashion project.

12.0 Analyze interior design choices – the student will be able to:

12.01 Explain the impact of political and social climates on decorating styles.

12.02 Identify characteristics of furnishing styles.

12.03 Identify factors that impact furnishing choices.

13.0 Develop a project related to interior design – the student will be able to:

13.01 Apply the principals and elements of design in selecting an interior design project.

13.02 Calculate the costs of an interior design project.

13.03 Interpret written directions for assembling/constructing an interior design project.

13.04 Apply math skills and construct an interior design project.

14.0 Utilize technology as it relates to the design industry – the student will be able to:

14.01 Identify technology utilized in the design industry.

14.02 Analyze technology trends impacting the design industry.

14.03 Utilize technology.

15.0 Demonstrate the skills involved in effective resource management – the student will be able to:

15.01 Identify steps of the decision-making process.

15.02 Distinguish between a need and a want.

15.03 Explain how values and goals affect decisions.

15.04 Develop a budget and savings plan.

15.05 Analyze the relationship between resources and the attainment of lifestyle goals.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

The occupational standards and benchmarks outlined in this secondary program correlate to the standards and benchmarks of the postsecondary program with the same Classification of Instructional Programs (CIP) number.

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

FCCLA is the intercultural career and technical student organization(s) providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Cooperative Training – OJT**

On-the-job training is appropriate but not required for this program. Whenever offered, the rules, guidelines, and requirements specified in the OJT framework apply.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Some secondary students with disabilities (ESE) may need additional time (i.e., longer than the regular school year), to master the student performance standards associated with a regular course or a modified course. If needed, a student may enroll in the same career and technical course more than once. Documentation should be included in the IEP that clearly indicates that it is anticipated that the student may need an additional year to complete a Career and Technical Education (CTE) course. The student should work on different competencies and new applications of competencies each year toward completion of the CTE course. After achieving the competencies identified for the year, the student earns credit for the course. It is important to ensure that credits earned by students are reported accurately. The district's information system must be designed to accept multiple credits for the same course number for eligible students with disabilities.

Florida Department of Education  
Curriculum Framework

**Course Title:** Careers in Fashion and Interior Design and Career Planning  
**Course Type:** Orientation/Exploratory and Career Planning  
**Career Cluster:** Arts, A/V Technology and Communication

**Secondary – Middle School**

Course Number	8209200
CIP Number	0404050108
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	FCCLA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Arts, A/V Technology and Communication career cluster. The content includes, but is not limited to, the development of leadership skills, communication skills, and employability skills; resource management; exploration of design careers; working with textiles and elements of design; basic sewing skills; making clothing choices; technology in the design industry; and completion of projects related to fashion and interior design.

This course is similar to Careers in Fashion and Interior Design; however, it includes career and education planning competencies.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

## **Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8209200	Careers in Fashion and Interior Design and Career Planning	FAM CON SC 1	Semester

## Standards

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate leadership skills.
- 02.0 Demonstrate employability skills as they relate to the design industry.
- 03.0 Demonstrate effective communication skills.
- 04.0 Analyze careers in the design industry.
- 05.0 Select and use tools and equipment.
- 06.0 Identify characteristics and care of textiles.
- 07.0 Explain the elements and principles of design.
- 08.0 Explain how environmental factors impact design.
- 09.0 Demonstrate basic sewing skills.
- 10.0 Analyze clothing choices.
- 11.0 Develop a project related to fashion.
- 12.0 Analyze interior design choices.
- 13.0 Develop a project related to interior design.
- 14.0 Utilize technology as it relates to the design industry.
- 15.0 Demonstrate the skills involved in effective resource management.

### **Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes:**

- 16.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.
- 17.0 Develop skills to locate, evaluate, and interpret career information.
- 18.0 Identify and demonstrate processes for making short and long term goals.
- 19.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
- 20.0 Understand the relationship between educational achievement and career choices/post-secondary options.
- 21.0 Identify a career cluster and related pathways through an interest assessment that match career and education goals.
- 22.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and post-secondary/career goals.
- 23.0 Demonstrate knowledge of technology and its application in career fields/clusters.

Florida Department of Education  
 Student Performance Standards

**Course Title:** Careers in Fashion and Interior Design and Career Planning  
**Course Number:** 8209200  
**Course Length:** Semester

**Course Description:**

This course will assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in interior design and fashion design. The content includes, but is not limited to, the development of leadership skills, communication skills, and employability skills; resource management; exploration of design careers; working with textiles and elements of design; basic sewing skills; making clothing choices; technology in the design industry; and completion of projects related to fashion and interior design.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate leadership skills – the student will be able to:
01.01	Identify roles and responsibilities of members of professional and community service organizations, including career and technical student organizations.
01.02	Work cooperatively as a group member to achieve organizational goals.
01.03	Demonstrate leadership roles and organizational responsibilities.
01.04	Identify and utilize the planning process.
01.05	Develop a personal growth project.
02.0	Demonstrate employability skills as they relate to the design industry – the student will be able to:
02.02	Identify personal talents and abilities that can contribute to positive self-esteem and success in the workplace.
02.03	Practice teamwork skills.
02.04	Practice employability skills.
02.05	Practice positive work ethics and identify negative work ethics.
02.06	Exhibit work expectations of an employer in the design industry.
02.07	Apply math, reading, science, and critical thinking skills as they relate to the design industry.
03.0	Demonstrate effective communication skills – the student will be able to:

03.02	Describe why communication is the basis for all relationships.
03.03	Distinguish between non-assertive, assertive, and aggressive communication.
03.04	Demonstrate communication skills that promote positive relationships in the workplace.
03.05	Practice active listening skills.
03.06	Utilize conflict resolution skills.
04.0	Analyze careers in the design industry – the student will be able to:
04.01	Describe careers in the design industry.
04.02	Classify careers from entry level to professional level.
04.03	Explore entrepreneurship opportunities in the design industry
04.04	Research and present information on a design career to include roles and responsibilities, employment opportunities and requirements for education and training.
05.0	Select and use tools and equipment – the student will be able to:
05.01	Identify and select the appropriate tool for an assignment.
05.02	Demonstrate the proper and safe use of tools and equipment.
05.03	Practice care and maintenance of tools and equipment.
06.0	Identify characteristics and care of textiles – the student will be able to:
06.01	Identify a variety of fabrics through tactile activities.
06.02	Compare and contrast natural and synthetic fabrics.
06.03	Recognize types of fabric construction.
06.04	Identify fabrics appropriate for various purposes.
07.0	Explain the elements and principles of design – the student will be able to:
07.01	Define and illustrate the elements of design.
07.02	Create a color wheel.
07.03	Recognize basic color schemes.
07.04	Research the psychology of color.



07.05	Define and illustrate the principles of design.
08.0	Explain how environmental factors impact design – the student will be able to:
08.01	Define green design.
08.02	Research eco-friendly design products.
08.03	Examine the positive and negative impact that a design product has on the environment.
08.04	Redesign an item into another useful product.
09.0	Demonstrate basic sewing skills – the student will be able to:
09.01	Identify and give the purpose of sewing machine parts.
09.02	Demonstrate math skills as they relate to sewing.
09.03	Demonstrate the threading of a sewing machine.
09.04	Demonstrate straight stitching.
09.05	Identify and demonstrate various stitch length and width selections.
09.06	Interpret written instructions and construct a basic sewing project.
10.0	Analyze clothing choices – the student will be able to:
10.01	Explain the impact of trends and social climates on fashion styles.
10.02	Identify appropriate clothing styles for various events.
10.03	Identify factors that impact clothing costs.
10.04	Demonstrate the procedure for recording accurate body measurements.
10.05	Analyze proper fit.
11.0	Develop a project related to fashion – the student will be able to:
11.01	Select materials and supplies for a fashion project.
11.02	Calculate the costs of a given fashion project.
11.03	Interpret written directions for constructing a fashion project.
11.04	Apply math skills and construct a fashion project.

12.0	Analyze interior design choices – the student will be able to:
12.01	Explain the impact of political and social climates on decorating styles.
12.02	Identify characteristics of furnishing styles.
12.03	Identify factors that impact furnishing choices.
13.0	Develop a project related to interior design – the student will be able to:
13.01	Apply the principals and elements of design in selecting an interior design project.
13.02	Interpret written directions for assembling/constructing an interior design project.
13.03	Apply math skills and construct an interior design project.
14.0	Utilize technology as it relates to the design industry – the student will be able to:
14.01	Identify technology utilized in the design industry.
14.02	Analyze technology trends impacting the design industry.
14.03	Utilize technology.
15.0	Demonstrate the skills involved in effective resource management – the student will be able to:
15.01	Identify steps of the decision-making process.
15.02	Distinguish between a need and a want.
15.03	Explain how values and goals affect decisions.
15.04	Develop a budget and savings plan.
15.05	Analyze the relationship between resources and the attainment of lifestyle goals.
<b>Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes--</b> The student will be able to:	
16.0	Describe the influences that societal, economic, and technological changes have on employment trends and future training.
17.0	Develop skills to locate, evaluate, and interpret career information.
18.0	Identify and demonstrate processes for making short and long term goals.

19.0	Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
20.0	Understand the relationship between educational achievement and career choices/post-secondary options.
21.0	Identify a career cluster and related pathways that match career and education goals.
22.0	Develop a career and education plan that includes short- and long-term goals, a secondary-level program of study, and post-secondary/career goals.
23.0	Demonstrate knowledge of technology and its application in career fields/clusters.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

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### **Special Notes**

The occupational standards and benchmarks outlined in this secondary program correlate to the standards and benchmarks of the postsecondary program with the same Classification of Instructional Programs (CIP) number.

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

FCCLA is the intercultural career and technical student organization(s) providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Cooperative Training – OJT**

On-the-job training is appropriate but not required for this program. Whenever offered, the rules, guidelines, and requirements specified in the OJT framework apply.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Some secondary students with disabilities (ESE) may need additional time (i.e., longer than the regular school year), to master the student performance standards associated with a regular course or a modified course. If needed, a student may enroll in the same career and technical course more than once. Documentation should be included in the IEP that clearly indicates that it is anticipated that the student may need an additional year to complete a Career and Technical Education (CTE) course. The student should work on different competencies and new applications of competencies each year toward completion of the CTE course. After achieving the competencies identified for the year, the student earns credit for the course. It is important to ensure that credits earned by students are reported accurately. The district's information system must be designed to accept multiple credits for the same course number for eligible students with disabilities.

Florida Department of Education  
Curriculum Framework

**Course Title:** Careers in Fashion Design  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Arts, A/V Technology and Communication

**Secondary – Middle School**

Course Number	8209310
CIP Number	04190901MS
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	FCCLA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Arts, A/V Technology and Communication career cluster. The content includes, but is not limited to, the development of leadership, communication, and employability skills, resource management, and the exploration of fashion design careers. Students will work with textiles and design elements, learn basic sewing skills, make clothing selections, utilize industry-related technology, and complete projects related to fashion technology and design. Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

## **Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8209310	Careers in Fashion Design	FAM CON SC 1 FASH TECH 7 G	Semester

## **Standards**

After successfully completing this course, the student will be able to perform the following:

- 01.0 Demonstrate teamwork and leadership skills.
- 02.0 Demonstrate employability skills related to the fashion design industry.
- 03.0 Demonstrate effective communication skills.
- 04.0 Analyze careers in the fashion design industry.
- 05.0 Demonstrate knowledge of the history of fashion.
- 06.0 Select and use tools and equipment.
- 07.0 Identify the characteristics and care of textiles.
- 08.0 Explain the elements and principles of design.
- 09.0 Explain the impact of repairing, altering, redesigning or recycling a garment.
- 10.0 Demonstrate basic sewing skills.
- 11.0 Analyze clothing choices.
- 12.0 Demonstrate the proper procedure for taking accurate body measurements.
- 13.0 Develop a project related to fashion technology and design.
- 14.0 Utilize technology related to the fashion design industry.
- 15.0 Demonstrate the skills involved in effective resource management.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Careers in Fashion Design  
**Course Number:** 8209310  
**Course Length:** Semester

**Course Description:**

The purpose of this course is to assist students in making informed decisions regarding academic and occupational goals and to provide information regarding careers in the fashion design industry. The content includes, but is not limited to, the development of leadership, communication, and employability skills, resource management, and the exploration of fashion design careers. Students will work with textiles and design elements, learn basic sewing skills, make clothing selections, utilize industry-related technology, and complete projects related to fashion technology and design.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate teamwork and leadership skills – the student will be able to:
01.01	Identify the purposes, functions, roles, and responsibilities of members of professional and youth organizations and career and technical student organizations (CTSO).
01.02	Work cooperatively as a group member to demonstrate leadership and achieve organizational goals.
01.03	Identify leadership roles and organizational responsibilities.
01.04	Identify and utilize the planning process.
01.05	Research and discuss the history of the related CTSO.
02.0	Demonstrate employability skills related to the fashion design industry – the student will be able to:
02.01	Identify personal talents and abilities that contribute to positive self-esteem and workplace success.
02.02	Identify and practice teamwork skills.
02.03	Identify and demonstrate employability skills.
02.04	Identify and demonstrate positive work ethics; determine negative work ethics.
02.05	Exhibit the work-related expectations of an employer in the fashion design industry.
02.06	Apply the math, reading, science, and critical thinking skills related to the fashion design industry.



## CTE Standards and Benchmarks

03.0 Demonstrate effective communications skills – the student will be able to:

03.01 Describe the ways communication forms the basis for all relationships.

03.02 Distinguish between aggressive, assertive, and non-assertive forms of communication.

03.03 Demonstrate communications skills that promote positive workplace relationships.

03.04 Practice active listening skills.

03.05 Demonstrate conflict resolution skills.

04.0 Analyze careers in the fashion design industry – the student will be able to:

04.01 Research and describe careers in the fashion design industry.

04.02 Classify career options from entry level to professional level.

04.03 Explore entrepreneurship opportunities in the fashion design industry.

04.04 Research and present information on a fashion design career; include the roles and responsibilities, employment opportunities, and requirements for education and training.

05.0 Demonstrate knowledge of the history of fashion – the student will be able to:

05.01 Explain how historical periods impact fashion.

05.02 Explain the impact of social changes, history, politics, and culture on fashion and fashion design.

05.03 Identify the factors that impact fashion choices.

06.0 Select and use tools and equipment – the student will be able to:

06.01 Identify and select the appropriate tools for an assignment.

06.02 Demonstrate the proper and safe use of tools and equipment.

06.03 Demonstrate care and maintenance of tools and equipment.

07.0 Identify the characteristics and care of textiles – the student will be able to:

07.01 Identify a variety of fabrics through textile activities.

07.02 Compare and contrast natural and synthetic fibers and fabrics.

## CTE Standards and Benchmarks

07.03 Recognize different types of fabric construction.

07.04 Identify the appropriate use/purpose of a variety of fabric types.

08.0 Explain the elements and principles of design – the student will be able to:

08.01 Define and illustrate the elements of design.

08.02 Describe a color wheel and its use in fashion design.

08.03 Recognize basic color schemes.

08.04 Research the psychology of color.

08.05 Define and illustrate the principles of design.

09.0 Explain the impact of repairing, altering, redesigning or recycling a garment – the student will be able to:

09.01 Define *green design*, *sustainable design*, and *life cycle cost*.

09.02 Research eco-friendly design products.

09.03 Examine the positive and negative environmental impact of a design product.

09.04 Select a used fashion item to recycle into a new product; create a new product using the recycled item.

10.0 Demonstrate basic sewing skills – the student will be able to:

10.01 Identify the parts of a sewing machine; state the purpose of each part.

10.02 Demonstrate mathematical skills related to sewing.

10.03 Thread a sewing machine.

10.04 Demonstrate straight-stitching.

10.05 Identify and demonstrate various stitch lengths and widths.

10.06 Interpret written instructions and construct a basic sewing project.

11.0 Analyze clothing choices – the student will be able to:

11.01 Explain the impact of trends and social climates on fashion styles.

## CTE Standards and Benchmarks

11.02 Identify the appropriate clothing styles for a variety of events.

11.03 Identify the factors that impact clothing costs.

12.0 Demonstrate the proper procedure for taking accurate body measurements – the student will be able to:

12.01 Identify different figure types.

12.02 Explain and describe the components of a pattern.

12.03 Identify the symbols found on a pattern piece.

12.04 Demonstrate how to pin and prepare fabric for a fashion project.

12.05 Analyze proper fit.

13.0 Develop a project related to fashion technology and design – the student will be able to:

13.01 Select the materials and supplies for a fashion project.

13.02 Calculate the costs associated with a specified fashion project.

13.03 Interpret written directions to construct a fashion project.

13.04 Apply mathematical skills to construct a fashion project.

14.0 Utilize technology related to the fashion design industry – the student will be able to:

14.01 Identify the technology and software utilized in the fashion design industry.

14.02 Analyze technological trends that impact the fashion design industry.

14.03 Utilize technology related to the fashion design industry.

15.0 Demonstrate the skills involved in effective resource management – the student will be able to:

15.01 Identify the steps of the decision-making process.

15.02 Distinguish between a need and a want.

15.03 Explain how values and goals affect decision-making.

15.04 Develop a budget and savings plan.

**CTE Standards and Benchmarks**

15.05 Analyze the relationship between resources and the attainment of lifestyle goals.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

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English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

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Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

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### **Career and Technical Student Organization (CTSO)**

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### **Cooperative Training – OJT**

On-the-job training is appropriate but not required for this program. Whenever offered, the rules, guidelines, and requirements specified in the OJT framework apply.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Some secondary students with disabilities (ESE) may need additional time (i.e., longer than the regular school year), to master the student performance standards associated with a regular course or a modified course. If needed, a student may enroll in the same career and technical course more than once. Documentation should be included in the IEP that clearly indicates that it is anticipated that the student may need an additional year to complete a Career and Technical Education (CTE) course. The student should work on different competencies and new applications of competencies each year toward completion of the CTE course. After achieving the competencies identified for the year, the student earns credit for the course. It is important to ensure that credits earned by students are reported accurately. The district's information system must be designed to accept multiple credits for the same course number for eligible students with disabilities.

Florida Department of Education  
Curriculum Framework

**Course Title:** Introduction to Arts, A/V Technology and Communication  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Arts, A/V Technology and Communication

**Secondary – Middle School**

Course Number	8209350
CIP Number	148209350M
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b>Course Structure</b> section.
CTSO	SkillsUSA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Arts, A/V Technology and Communication career cluster. The content includes, but is not limited to, technology literacy; understanding the importance of Arts and A/V; understanding the role of science, math, reading, writing, history, and technology in Arts and A/V; and Digital Media. Reinforcement of academic skills occurs through classroom instruction and applied laboratory procedures. Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
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Course Number	Course Title	Teacher Certification	Length
8209350	Introduction to Arts, A/V Technology and Communication	BUS ED 1 @2 COMM ART @7 7G COMP SCI 6 @2 MKTG 1 PRINTING @7 7G SECRETAR 7 G TC COOP ED @7 TEC ED 1@2 ENG&TEC ED1@2 TV PRO TEC @7 7G VOE @7	Semester

### **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate an understanding of the Audio and Video Technology and Film career pathway.
- 02.0 Demonstrate an understanding of the Telecommunications career pathway.
- 03.0 Demonstrate an understanding of the Printing Technology career pathway.
- 04.0 Demonstrate an understanding of the Visual Arts career pathway.
- 05.0 Demonstrate an understanding of the Performing Arts career pathway.
- 06.0 Apply leadership and communication skills.
- 07.0 Describe how information technology is used in the Arts, A/V Technology and Communication career cluster.
- 08.0 Use information technology tools.



**Florida Department of Education  
Student Performance Standards**

**Course Title:** Introduction to Arts, A/V Technology and Communication  
**Course Number:** 8209350  
**Course Length:** Semester

**Course Description:**

Beginning with a broad overview of the Arts, A/V Technology and Communication career cluster, students are introduced to the terminology, careers, history, required skills, and technologies associated with each pathway in the Arts, A/V Technology and Communication career cluster. Additionally, they will be provided with opportunities to acquire and demonstrate beginning leadership skills as well as opportunities for hands-on activities.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate an understanding of the Audio and Video Technology and Film career pathway – the student will be able to:
01.01	Define and use proper terminology associated with the Audio and Video Technology and Film career pathway.
01.02	Describe some of the careers available in the Audio and Video Technology and Film career pathway.
01.03	Identify common characteristics of the careers in the Audio and Video Technology and Film career pathway.
01.04	Research the history of the Audio and Video Technology and Film career pathway and describe how the associated careers have evolved and impacted society.
01.05	Identify skills required to successfully enter any career in the Audio and Video Technology and Film career pathway.
01.06	Describe technologies associated in careers within the Audio and Video Technology and Film career pathway.
02.0	Demonstrate an understanding of the Telecommunications career pathway – the student will be able to:
02.01	Define and use proper terminology associated with the Telecommunications career pathway.
02.02	Describe some of the careers available in the Telecommunications career pathway.
02.03	Identify common characteristics of the careers in the Telecommunications career pathway.
02.04	Research the history of the Telecommunications career pathway and describe how the associated careers have evolved and impacted society.
02.05	Identify skills required to successfully enter any career in the Telecommunications career pathway.
02.06	Describe technologies associated in careers within the Telecommunications career pathway.

## CTE Standards and Benchmarks

03.0 Demonstrate an understanding of the Printing Technology career pathway – the student will be able to:

03.01 Define and use proper terminology associated with the Printing Technology career pathway.

03.02 Describe some of the careers available in the Printing Technology career pathway.

03.03 Identify common characteristics of the careers in the Printing Technology career pathway.

03.04 Research the history of the Printing Technology career pathway and describe how the associated careers have evolved and impacted society.

03.05 Identify skills required to successfully enter any career in the Printing Technology career pathway.

03.06 Describe technologies associated in careers within the Printing Technology career pathway.

04.0 Demonstrate an understanding of the Visual Arts career pathway – the student will be able to:

04.01 Define and use proper terminology associated with the Visual Arts career pathway.

04.02 Describe some of the careers available in the Visual Arts career pathway.

04.03 Identify common characteristics of the careers in the Visual Arts career pathway.

04.04 Research the history of the Visual Arts career pathway and describe how the associated careers have evolved and impacted society.

04.05 Identify skills required to successfully enter any career in the Visual Arts career pathway.

04.06 Describe technologies associated in careers within the Visual Arts career pathway.

05.0 Demonstrate an understanding of the Performing Arts career pathway – the student will be able to:

05.01 Define and use proper terminology associated with the Performing Arts career pathway.

05.02 Describe some of the careers available in the Performing Arts career pathway.

05.03 Identify common characteristics of the careers in the Performing Arts career pathway.

05.04 Research the history of the Performing Arts career pathway and describe how the associated careers have evolved and impacted society.

05.05 Identify skills required to successfully enter any career in the Performing Arts career pathway.

05.06 Describe technologies associated in careers within the Performing Arts career pathway.

06.0 Apply leadership and communication skills – the student will be able to:

06.01 Discuss the establishment and history of the SkillsUSA organization.

## CTE Standards and Benchmarks

06.02	Identify the characteristics and responsibilities of organizational leaders.
06.03	Demonstrate parliamentary procedure skills during a meeting.
06.04	Participate on a committee which has an assigned task and report to the class.
06.05	Demonstrate effective communication skills through delivery of a speech, a slide presentation, or conducting a demonstration.
06.06	Use a computer to assist in the completion of project related to Arts, A/V Technology and Communication career cluster.
07.0	Describe how information technology is used in the Arts, A/V Technology and Communication career cluster – the student will be able to:
07.01	Identify information technology (IT) careers in the Arts, A/V Technology and Communication career cluster, including the responsibilities, tasks and skills they require.
07.02	Relate information technology project management concepts and terms to careers in the Arts, A/V Technology and Communication career cluster.
07.03	Manage information technology components typically used in professions of the Arts, A/V Technology and Communication career cluster.
07.04	Identify security-related ethical and legal IT issues faced by professionals in the Arts, A/V Technology and Communication career cluster.
08.0	Use information technology tools – the student will be able to:
08.01	Identify the functions of web browsers, and use them to access the World Wide Web and other computer resources typically used in the Arts, A/V Technology and Communication career cluster.
08.02	Use e-mail clients to send simple messages and files to other Internet users.
08.03	Demonstrate ways to communicate effectively using Internet technology.
08.04	Use different types of web search engines effectively to locate information relevant to the Arts, A/V Technology and Communication career cluster.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

The occupational standards and benchmarks outlined in this secondary program correlate to the standards and benchmarks of the postsecondary program with the same Classification of Instructional Programs (CIP) number.

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

SkillsUSA is the intercurricular career and technical student organization(s) providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Cooperative Training – OJT**

On-the-job training is appropriate but not required for this program. Whenever offered, the rules, guidelines, and requirements specified in the OJT framework apply.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Some secondary students with disabilities (ESE) may need additional time (i.e., longer than the regular school year), to master the student performance standards associated with a regular course or a modified course. If needed, a student may enroll in the same career and technical course more than once. Documentation should be included in the IEP that clearly indicates that it is anticipated that the student may need an additional year to complete a Career and Technical Education (CTE) course. The student should work on different competencies and new applications of competencies each year toward completion of the CTE course. After achieving the competencies identified for the year, the student earns credit for the course. It is important to ensure that credits earned by students are reported accurately. The district's information system must be designed to accept multiple credits for the same course number for eligible students with disabilities.

Florida Department of Education  
Curriculum Framework

**Course Title:** Introduction to Arts, A/V Technology and Communication and Career Planning  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Arts, A/V Technology and Communication

Secondary – Middle School	
Course Number	8209360
CIP Number	148209360M
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	SkillsUSA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Arts, A/V Technology and Communication career cluster. The content includes, but is not limited to, technology literacy; the importance of Arts and A/V technology; the role of science, math, reading, writing, history, and technology in the Arts and A/V; and digital media. Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

## Course Structure

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8209360	Introduction to Arts, A/V Technology and Communication and Career Planning	BUS ED 1 @2 COMM ART @7 7G COMP SCI 6 @2 MKTG 1 PRINTING @7 7G SECRETAR 7 G TC COOP ED @7 TEC ED 1@2 TV PRO TEC @7 7G VOE @7	Semester

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate an understanding of the Audio and Video Technology and Film career pathway.
- 02.0 Demonstrate an understanding of the Telecommunications career pathway.
- 03.0 Demonstrate an understanding of the Printing Technology career pathway.
- 04.0 Demonstrate an understanding of the Visual Arts career pathway.
- 05.0 Demonstrate an understanding of the Performing Arts career pathway.
- 06.0 Apply leadership and communication skills.
- 07.0 Describe how information technology is used in the Arts, A/V Technology and Communication career cluster.
- 08.0 Use information technology tools.

### **Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes:**

- 09.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.
- 10.0 Develop skills to locate, evaluate, and interpret career information.
- 11.0 Identify and demonstrate processes for making short- and long-term goals.
- 12.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
- 13.0 Understand the relationship between educational achievement and career choices/postsecondary options.
- 14.0 Identify a career cluster and related pathways through an interest assessment that matches career and education goals.
- 15.0 Develop a career and education plan that includes short- and long-term goals, a high school program of study, and postsecondary/career goals.
- 16.0 Demonstrate knowledge of technology and its application in career fields/clusters.



**Florida Department of Education  
Student Performance Standards**

**Course Title:** Introduction to Arts, A/V Technology and Communication and Career Planning  
**Course Number:** 8209360  
**Course Length:** Semester

**Course Description:**

Beginning with a broad overview of the Arts, A/V Technology and Communication career cluster, students are introduced to the terminology, careers, history, required skills, and technologies associated with each pathway in the Arts, A/V Technology and Communication career cluster. Additionally, they will be provided with opportunities to acquire and demonstrate beginning leadership skills as well as opportunities for hands-on activities.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate an understanding of the Audio and Video Technology and Film career pathway – the student will be able to:
01.01	Define and use proper terminology associated with the Audio and Video Technology and Film career pathway.
01.02	Describe some of the careers available in the Audio and Video Technology and Film career pathway.
01.03	Identify common characteristics of the careers in the Audio and Video Technology and Film career pathway.
01.04	Research the history of the Audio and Video Technology and Film career pathway and describe how the associated careers have evolved and impacted society.
01.05	Identify skills required to successfully enter any career in the Audio and Video Technology and Film career pathway.
01.06	Describe technologies associated in careers within the Audio and Video Technology and Film career pathway.
02.0	Demonstrate an understanding of the Telecommunications career pathway – the student will be able to:
02.01	Define and use proper terminology associated with the Telecommunications career pathway.
02.02	Describe some of the careers available in the Telecommunications career pathway.
02.03	Identify common characteristics of the careers in the Telecommunications career pathway.
02.04	Research the history of the Telecommunications career pathway and describe how the associated careers have evolved and impacted society.
02.05	Identify skills required to successfully enter any career in the Telecommunications career pathway.
02.06	Describe technologies associated in careers within the Telecommunications career pathway.

03.0	Demonstrate an understanding of the Printing Technology career pathway – the student will be able to:
03.01	Define and use proper terminology associated with the Printing Technology career pathway.
03.02	Describe some of the careers available in the Printing Technology career pathway.
03.03	Identify common characteristics of the careers in the Printing Technology career pathway.
03.04	Research the history of the Printing Technology career pathway and describe how the associated careers have evolved and impacted society.
03.05	Identify skills required to successfully enter any career in the Printing Technology career pathway.
03.06	Describe technologies associated in careers within the Printing Technology career pathway.
04.0	Demonstrate an understanding of the Visual Arts career pathway – the student will be able to:
04.01	Define and use proper terminology associated with the Visual Arts career pathway.
04.02	Describe some of the careers available in the Visual Arts career pathway.
04.03	Identify common characteristics of the careers in the Visual Arts career pathway.
04.04	Research the history of the Visual Arts career pathway and describe how the associated careers have evolved and impacted society.
04.05	Identify skills required to successfully enter any career in the Visual Arts career pathway.
04.06	Describe technologies associated in careers within the Visual Arts career pathway.
05.0	Demonstrate an understanding of the Performing Arts career pathway – the student will be able to:
05.01	Define and use proper terminology associated with the Performing Arts career pathway.
05.02	Describe some of the careers available in the Performing Arts career pathway.
05.03	Identify common characteristics of the careers in the Performing Arts career pathway.
05.04	Research the history of the Performing Arts career pathway and describe how the associated careers have evolved and impacted society.
05.05	Identify skills required to successfully enter any career in the Performing Arts career pathway.
05.06	Describe technologies associated in careers within the Performing Arts career pathway.
06.0	Apply leadership and communication skills – the student will be able to:
06.01	Discuss the establishment and history of the SkillsUSA organization.
06.02	Identify the characteristics and responsibilities of organizational leaders.

06.03	Demonstrate parliamentary procedure skills during a meeting.
06.04	Participate on a committee which has an assigned task and report to the class.
06.05	Demonstrate effective communication skills through delivery of a speech, a slide presentation, or by conducting a demonstration.
06.06	Use a computer to assist in the completion of a project related to Arts, A/V Technology and Communication career cluster.
07.0	Describe how information technology is used in the Arts, A/V Technology and Communication career cluster – the student will be able to:
07.01	Identify information technology (IT) careers in the Arts, A/V Technology and Communication career cluster, including the responsibilities, tasks and skills they require.
07.02	Relate information technology project management concepts and terms to careers in the Arts, A/V Technology and Communication career cluster.
07.03	Manage information technology components typically used in professions of the Arts, A/V Technology and Communication career cluster.
07.04	Identify security-related ethical and legal IT issues faced by professionals in the Arts, A/V Technology and Communication career cluster.
08.0	Use information technology tools – the student will be able to:
08.01	Identify the functions of web browsers, and use them to access the World Wide Web and other computer resources typically used in the Arts, A/V Technology and Communication career cluster.
08.02	Use e-mail clients to send simple messages and files to other Internet users.
08.03	Demonstrate ways to communicate effectively using Internet technology.
08.04	Use different types of web search engines effectively to locate information relevant to the Arts, A/V Technology and Communication career cluster.
<b>Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes—the students will be able to:</b>	
09.0	Describe the influences that societal, economic, and technological changes have on employment trends and future training.
10.0	Develop skills to locate, evaluate, and interpret career information.
11.0	Identify and demonstrate processes for making short and long term goals.
12.0	Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
13.0	Understand the relationship between educational achievement and career choices/post-secondary options.
14.0	Identify a career cluster and related pathways through an interest assessment that match career and education goals.

15.0	Develop a career and education plan that includes short and long-term goals, high school program of study, and post-secondary/career goals.
16.0	Demonstrate knowledge of technology and its application in career fields/clusters

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

The occupational standards and benchmarks outlined in this secondary program correlate to the standards and benchmarks of the postsecondary program with the same Classification of Instructional Programs (CIP) number.

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

SkillsUSA is the intercultural career and technical student organization(s) providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Cooperative Training – OJT**

On-the-job training is appropriate but not required for this program. Whenever offered, the rules, guidelines, and requirements specified in the OJT framework apply.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Some secondary students with disabilities (ESE) may need additional time (i.e., longer than the regular school year), to master the student performance standards associated with a regular course or a modified course. If needed, a student may enroll in the same career and technical course more than once. Documentation should be included in the IEP that clearly indicates that it is anticipated that the student may need an additional year to complete a Career and Technical Education (CTE) course. The student should work on different competencies and new applications of competencies each year toward completion of the CTE course. After achieving the competencies identified for the year, the student earns credit for the course. It is important to ensure that credits earned by students are reported accurately. The district's information system must be designed to accept multiple credits for the same course number for eligible students with disabilities.

Florida Department of Education  
Curriculum Framework

**Course Title:** Fundamentals of A/V and Print Technology  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Arts, A/V Technology and Communication

**Secondary – Middle School**

Course Number	8260300
CIP Number	148260300M
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b>Course Structure</b> section.
CTSO	SkillsUSA

**Purpose**

The purpose of this course is to give students an opportunity to apply knowledge and skills related to the area of A/V and Print Technology.

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Arts, A/V Technology and Communication career cluster. The content includes, but is not limited to, leadership and employability skills, career exploration, project development, and the utilization of technology. Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8260300	Fundamentals of A/V and Print Technology	BUS ED 1@2	Semester

Course Number	Course Title	Teacher Certification	Length
		PRINTING @7 7G TEC ED 1 @ 2 ENG&TEC ED1@2 TV PRO TEC @7 7G	

**Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate leadership skills.
- 02.0 Demonstrate employability skills as they relate to the A/V Technology, Film, and Printing Technology industries.
- 03.0 Demonstrate effective communication skills.
- 04.0 Analyze careers in the A/V Technology, Film, and Printing Technology industries.
- 05.0 Select and use tools and equipment.
- 06.0 Develop a project related to A/V Technology, Film, and Printing Technology.
- 07.0 Utilize technology as it relates to the A/V Technology, Film, and Printing Technology industries.
- 08.0 Demonstrate the skills involved in effective resource management.
- 09.0 Identify components of network systems.
- 10.0 Describe and use communication features of information technology.



**Florida Department of Education  
Student Performance Standards**

**Course Title:** Fundamentals of A/V and Print Technology  
**Course Number:** 8260300  
**Course Length:** Semester

**Course Description:**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the A/V Technology, Film, and Printing Technology industries. The content includes, but is not limited to, leadership and employability skills, career exploration, project development, and the utilization of technology.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate leadership skills – the student will be able to:
01.01	Identify the roles and responsibilities of members of professional and community service organizations, including career and technical student organizations.
01.02	Work cooperatively as a group member to achieve organizational goals.
01.03	Demonstrate leadership roles and organizational responsibilities.
01.04	Identify and utilize the planning process.
01.05	Develop a personal growth project.
02.0	Demonstrate employability skills as they relate to the A/V Technology, Film, and Printing Technology industries – the student will be able to:
02.01	Identify personal talents and abilities that can contribute to positive self-esteem and success in the workplace.
02.02	Practice teamwork skills.
02.03	Practice employability skills (e.g., time/resource management, communication, grooming/appearance).
02.04	Practice positive work ethics and identify negative work ethics.
02.05	Exhibit work expectations of an employer in the A/V Technology, Film, and Printing Technology industries.
02.06	Apply math, reading, science, and critical thinking skills as they relate to the A/V Technology, Film, and Printing Technology industries.
03.0	Demonstrate effective communication skills – the student will be able to:
03.01	Describe why communication is the basis for all relationships.

## CTE Standards and Benchmarks

03.02 Distinguish between non-assertive, assertive, and aggressive communication.

03.03 Demonstrate communication skills that promote positive relationships in the workplace.

03.04 Practice active listening skills.

03.05 Demonstrate the ability to utilize conflict resolution skills through role-play.

04.0 Analyze careers in the A/V Technology, Film, and Printing Technology industries – the student will be able to:

04.01 Describe careers in the A/V Technology, Film, and Printing Technology industries.

04.02 Classify careers from entry level to professional level.

04.03 Explore entrepreneurship opportunities in the A/V Technology, Film, and Printing Technology industries.

04.04 Research and present information on an A/V Technology, Film, and Printing Technology career to include roles and responsibilities, employment opportunities and requirements for education and training.

05.0 Select and use tools and equipment – the student will be able to:

05.01 Demonstrate knowledge of tools and their functions.

05.02 Demonstrate the proper and safe use of tools and equipment.

05.03 Practice care and maintenance of tools and equipment.

06.0 Develop a project related to A/V Technology, Film, and Printing Technology – the student will be able to:

06.01 Select materials and supplies for an A/V Technology project.

06.02 Calculate the costs of a given A/V Technology project.

06.03 Interpret written directions for constructing an A/V Technology project.

06.04 Apply math skills and construct an A/V Technology project.

07.0 Utilize technology as it relates to the A/V Technology, Film, and Printing Technology industries – the student will be able to:

07.01 Identify technology utilized in the A/V Technology, Film, and Printing Technology industries.

07.02 Analyze technology trends impacting the A/V Technology, Film, and Printing Technology industries.

07.03 Utilize technology.

08.0 Demonstrate the skills involved in effective resource management – the student will be able to:

## CTE Standards and Benchmarks

08.01 Identify steps of the decision-making process.

08.02 Distinguish between a need and a want.

08.03 Explain how values and goals affect decision-making.

08.04 Develop a budget and savings plan.

08.05 Analyze the relationship between resources and the attainment of lifestyle goals.

09.0 Identify components of network systems – the student will be able to:

09.01 Identify structure to access the Internet, including hardware and software components.

09.02 Identify and configure user customization features in web browsers (e.g., preferences, caching, cookies).

09.03 Recognize essential database concepts.

09.04 Define and use additional networking and Internet services.

10.0 Describe and use communication features of information technology – the student will be able to:

10.01 Define important Internet communications protocols and their roles in delivering basic Internet services.

10.02 Identify basic principles of the Domain Name System (DNS).

10.03 Identify security issues related to Internet clients.

10.04 Identify and use the principles and common applications of personal information management (PIM).

10.05 Efficiently transmit text and binary files using popular Internet services.

10.06 Represent technical issues to a non-technical audience.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

The occupational standards and benchmarks outlined in this secondary program correlate to the standards and benchmarks of the postsecondary program with the same Classification of Instructional Programs (CIP) number.

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

SkillsUSA is the intercurricular career and technical student organization(s) providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Cooperative Training – OJT**

On-the-job training is appropriate but not required for this program. Whenever offered, the rules, guidelines, and requirements specified in the OJT framework apply.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Some secondary students with disabilities (ESE) may need additional time (i.e., longer than the regular school year), to master the student performance standards associated with a regular course or a modified course. If needed, a student may enroll in the same career and technical course more than once. Documentation should be included in the IEP that clearly indicates that it is anticipated that the student may need an additional year to complete a Career and Technical Education (CTE) course. The student should work on different competencies and new applications of competencies each year toward completion of the CTE course. After achieving the competencies identified for the year, the student earns credit for the course. It is important to ensure that credits earned by students are reported accurately. The district's information system must be designed to accept multiple credits for the same course number for eligible students with disabilities.

Florida Department of Education  
Curriculum Framework

**Course Title:** Fundamentals of Telecommunications  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Arts, A/V Technology and Communication

**Secondary – Middle School**

Course Number	8260400
CIP Number	148260400M
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	SkillsUSA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Arts, A/V Technology and Communication career cluster. The content includes, but is not limited to, the development of leadership skills, communication skills, and employability skills; resource management; exploration of Arts and A/V careers; the science and technology of transmitting information electronically by wires or radio signals with integrated encoding and decoding equipment.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

## **Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8260400	Fundamentals of Telecommunications	COMP SVC 7G ELECTRICAL @7 7G ELECTRONIC @ 7 7G TELCOM 7G TV PRO TEC @7 7G	Semester

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate leadership skills.
- 02.0 Demonstrate employability skills as they relate to the Telecommunications industry.
- 03.0 Demonstrate effective communication skills.
- 04.0 Analyze careers in the Telecommunications industry.
- 05.0 Select and use tools and equipment.
- 06.0 Develop a project related to Telecommunications.
- 07.0 Utilize technology as it relates to the Telecommunications industry.
- 08.0 Demonstrate the skills involved in effective resource management.
- 09.0 Identify components of network systems.
- 10.0 Describe and use communication features of information technology.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Fundamentals of Telecommunications  
**Course Number:** 8260400  
**Course Length:** Semester

**Course Description:**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in Telecommunications.

**CTE Standards and Benchmarks**

01.0	Demonstrate leadership skills – the student will be able to:
01.01	Identify roles and responsibilities of members of professional and community service organizations, including career and technical student organizations.
01.02	Work cooperatively as a group member to achieve organizational goals.
01.03	Demonstrate leadership roles and organizational responsibilities.
01.04	Identify and utilize the planning process.
01.05	Develop a personal growth project.
02.0	Demonstrate employability skills as they relate to the Telecommunications industry – the student will be able to:
02.01	Identify personal talents and abilities that can contribute to positive self-esteem and success in the workplace.
02.02	Practice teamwork skills.
02.03	Practice employability skills.
02.04	Practice positive work ethics and identify negative work ethics.
02.05	Exhibit work expectations of an employer in the Telecommunications industry.
02.06	Apply math, reading, science, and critical thinking skills as they relate to the Telecommunications industry.
03.0	Demonstrate effective communication skills – the student will be able to:



## CTE Standards and Benchmarks

03.01 Describe why communication is the basis for all relationships.

03.02 Distinguish between non-assertive, assertive, and aggressive communication.

03.03 Demonstrate communication skills that promote positive relationships in the work place.

03.04 Practice active listening skills.

03.05 Utilize conflict resolution skills.

04.0 Analyze careers in the Telecommunications industry – the student will be able to:

04.01 Describe careers in the Telecommunications industry.

04.02 Classify careers from entry level to professional level.

04.03 Explore entrepreneurship opportunities in the Telecommunications industry

04.04 Research and present information on a Telecommunications career to include roles and responsibilities, employment opportunities and requirements for education and training.

05.0 Select and use tools and equipment – the student will be able to:

05.01 Identify and select the appropriate tool for the assignment.

05.02 Demonstrate the proper and safe use of tools and equipment.

05.03 Practice care and maintenance of tools and equipment.

06.0 Develop a project related to Telecommunications – the student will be able to:

06.01 Apply the principals and elements of design in selecting a Telecommunications project.

06.02 Interpret written directions for assembling/constructing a Telecommunications project.

06.03 Apply math skills and construct a Telecommunications project.

07.0 Utilize technology as it relates to the Telecommunications industry – the student will be able to:

07.01 Identify technology utilized in the Telecommunications industry.

07.02 Analyze technology trends impacting the Telecommunications industry.

07.03 Utilize technology.

08.0 Demonstrate the skills involved in effective resource management – the student will be able to:

## CTE Standards and Benchmarks

08.01 Identify steps of the decision-making process.

08.02 Distinguish between a need and a want.

08.03 Explain how values and goals affect decision-making.

08.04 Develop a budget and savings plan.

08.05 Analyze the relationship between resources and the attainment of lifestyle goals.

09.0 Identify components of network systems – the student will be able to:

09.01 Identify structure to access the Internet, including hardware and software components.

09.02 Identify and configure user customization features in web browsers, including preferences, caching, and cookies.

09.03 Recognize essential database concepts.

09.04 Define and use additional networking and Internet services.

10.0 Describe and use communication features of information technology – the student will be able to:

10.01 Define important Internet communications protocols and their roles in delivering basic Internet services.

10.02 Identify basic principles of the Domain Name System (DNS).

10.03 Identify security issues related to Internet clients.

10.04 Identify and use principles of personal information management (PIM), including common applications.

10.05 Efficiently transmit text and binary files using popular Internet services.

10.06 Represent technical issues to a non-technical audience.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

The occupational standards and benchmarks outlined in this secondary program correlate to the standards and benchmarks of the postsecondary program with the same Classification of Instructional Programs (CIP) number.

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

SkillsUSA is the intercurricular career and technical student organization(s) providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Cooperative Training – OJT**

On-the-job training is appropriate but not required for this program. Whenever offered, the rules, guidelines, and requirements specified in the OJT framework apply.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Some secondary students with disabilities (ESE) may need additional time (i.e., longer than the regular school year), to master the student performance standards associated with a regular course or a modified course. If needed, a student may enroll in the same career and technical course more than once. Documentation should be included in the IEP that clearly indicates that it is anticipated that the student may need an additional year to complete a Career and Technical Education (CTE) course. The student should work on different competencies and new applications of competencies each year toward completion of the CTE course. After achieving the competencies identified for the year, the student earns credit for the course. It is important to ensure that credits earned by students are reported accurately. The district's information system must be designed to accept multiple credits for the same course number for eligible students with disabilities.

Florida Department of Education  
Curriculum Framework

**Course Title:** Fundamentals of Visual and Performing Arts  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Arts, A/V Technology and Communication

Secondary – Middle School	
Course Number	8260500
CIP Number	148260500M
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	SkillsUSA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Arts, A/V Technology and Communication career cluster. The content includes, but is not limited to, topics pertaining to the Visual Arts, Performing Arts, Journalism, and Broadcasting industries. Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

## Course Structure

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8260500	Fundamentals of Visual and Performing Arts	BUS DP @7 %G BUS ED 1 @2 CLERICAL @7 7G COMM ART @7 7G COMP SCI 6 @2 ELECT DP @7 %7 %G GRAPH ARTS 4 JOURNALISM 1 MG ENG C MKTG 1 PHOTOG @7 7G PRINTING @7 7G SECRETAR 7 G TEC ED 1@2 ENG&TEC ED1@2 TEC ELEC @7 TV PRO TEC @7 7G VOE @7	Semester

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate leadership skills.
- 02.0 Demonstrate employability skills as they relate to the Visual Arts, Performing Arts, Journalism and Broadcasting industries.
- 03.0 Demonstrate effective communication skills.
- 04.0 Analyze careers in the Visual Arts, Performing Arts, Journalism and Broadcasting industries.
- 05.0 Select and use tools and equipment.
- 06.0 Develop a project related to Visual Arts, Performing Arts, Journalism and/or Broadcasting.
- 07.0 Utilize technology as it relates to the Visual Arts, Performing Arts, Journalism and Broadcasting industries.
- 08.0 Demonstrate the skills involved in effective resource management.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Fundamentals of Visual and Performing Arts  
**Course Number:** 8260500  
**Course Length:** Semester

**Course Description:**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Visual Arts, Performing Arts, Journalism and Broadcasting industries.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate leadership skills – the student will be able to:
01.01	Identify the roles and responsibilities of members of professional and community service organizations, including career and technical student organizations.
01.02	Work cooperatively as a group member to achieve organizational goals.
01.03	Demonstrate leadership roles and organizational responsibilities.
01.04	Identify and utilize the planning process.
01.05	Develop a personal growth project.
02.0	Demonstrate employability skills as they relate to the Visual Arts, Performing Arts, Journalism and Broadcasting industries – the student will be able to:
02.01	Identify personal talents and abilities that can contribute to positive self-esteem and success in the workplace.
02.02	Practice teamwork skills.
02.03	Practice employability skills.
02.04	Practice positive work ethics and identify negative work ethics.
02.05	Identify the work expectations of an employer in each of the specified industries.
02.06	Apply core subjects and/or STEM and critical thinking skills as they relate to the specified industries.
03.0	Demonstrate effective communication skills – the student will be able to:
03.01	Describe how communication forms the basis for all relationships.



## CTE Standards and Benchmarks

03.02 Distinguish between non-assertive, assertive, and aggressive communication.

03.03 Demonstrate communication skills that promote positive relationships in the workplace.

03.04 Practice active listening skills.

03.05 Utilize conflict resolution skills.

04.0 Analyze careers in the Visual Arts, Performing Arts, Journalism and Broadcasting industries – the student will be able to:

04.01 Identify careers in the Visual Arts, Performing Arts, Journalism and Broadcasting industries.

04.02 Classify careers from entry level to professional level.

04.03 Explore entrepreneurship opportunities in the specified industries.

04.04 Research and present information on an industry-related career; include roles and responsibilities, employment opportunities and the requirements for education and training.

05.0 Select and use tools and equipment – the student will be able to:

05.01 Identify and select the appropriate tool for the assignment.

05.02 Demonstrate the proper and safe use of tools and equipment.

05.03 Practice care and maintenance of tools and equipment.

06.0 Develop a project related to Visual Arts, Performing Arts, Journalism and/or Broadcasting – the student will be able to:

06.01 Select materials and supplies for a Visual Arts, Performing Arts, Journalism and Broadcasting project.

06.02 Plan a Visual Arts, Performing Arts, Journalism or Broadcasting project; apply math skills, calculate costs for the project, and construct the project.

06.03 Interpret written directions for constructing a Visual Arts, Performing Arts, Journalism and Broadcasting project.

07.0 Utilize technology as it relates to the Visual Arts, Performing Arts, Journalism and Broadcasting industries – the student will be able to:

07.01 Identify technology utilized in Visual Arts, Performing Arts, Journalism and Broadcasting.

07.02 Analyze technology trends impacting the specified industries.

07.03 Utilize technology related to the specified industries.

08.0 Demonstrate the skills involved in effective resource management – the student will be able to:

08.01 Identify steps of the decision-making process.

**CTE Standards and Benchmarks**

08.02 Distinguish between a need and a want.

08.03 Explain how values and goals affect decisions.

08.04 Develop a budget and savings plan.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

The occupational standards and benchmarks outlined in this secondary program correlate to the standards and benchmarks of the postsecondary program with the same Classification of Instructional Programs (CIP) number.

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

SkillsUSA is the intercultural career and technical student organization(s) providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Cooperative Training – OJT**

On-the-job training is appropriate but not required for this program. Whenever offered, the rules, guidelines, and requirements specified in the OJT framework apply.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Some secondary students with disabilities (ESE) may need additional time (i.e., longer than the regular school year), to master the student performance standards associated with a regular course or a modified course. If needed, a student may enroll in the same career and technical course more than once. Documentation should be included in the IEP that clearly indicates that it is anticipated that the student may need an additional year to complete a Career and Technical Education (CTE) course. The student should work on different competencies and new applications of competencies each year toward completion of the CTE course. After achieving the competencies identified for the year, the student earns credit for the course. It is important to ensure that credits earned by students are reported accurately. The district's information system must be designed to accept multiple credits for the same course number for eligible students with disabilities.

Florida Department of Education  
Curriculum Framework

**Course Title:** Introduction to Business Management and Administration  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Business Management and Administration

**Secondary – Middle School**

Course Number	8370350
CIP Number	148370350M
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	FBLA BPA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Business Management and Administration career cluster. The content includes but is not limited to fundamental knowledge and skills related to business functions in the Business Management and Administration cluster. Reinforcement of academic skills occurs through classroom instruction and applied laboratory procedures.

Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

## **Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8370350	Introduction to Business Management and Administration	BUS ED 1 @2 TC COOP ED @7 VOE @7	Semester

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate an understanding of the General Management career pathway.
- 02.0 Demonstrate an understanding of the Business Information Management career pathway.
- 03.0 Demonstrate an understanding of the Human Resources Management career pathway.
- 04.0 Demonstrate an understanding of the Operations Management career pathway.
- 05.0 Demonstrate an understanding of the Administrative Support career pathway.
- 06.0 Demonstrate an understanding of the Accounting career pathway.
- 07.0 Apply leadership and communication skills.
- 08.0 Describe how information technology is used in the Business Management and Administration career cluster.
- 09.0 Use information technology tools.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Introduction to Business Management and Administration  
**Course Number:** 8370350  
**Course Length:** Semester

**Course Description:**

Beginning with a broad overview of the Business Management and Administration career cluster, students are introduced to the terminology, careers, history, required skills, and technologies associated with each pathway in the Business Management and Administration career cluster. Additionally, they will be provided with opportunities to acquire and demonstrate beginning leadership skills.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate an understanding of the General Management career pathway. The student will be able to:
01.01	Define and use proper terminology associated with the General Management career pathway.
01.02	Describe some of the careers available in the General Management career pathway.
01.03	Identify common characteristics of the careers in the General Management career pathway.
01.04	Research the history of the General Management career pathway and describe how the associated careers have evolved and impacted society.
01.05	Identify skills required to successfully enter any career in the General Management career pathway.
01.06	Describe technologies associated in careers within the General Management career pathway.
02.0	Demonstrate an understanding of the Business Information Management career pathway. The student will be able to:
02.01	Define and use proper terminology associated with the Business Information Management career pathway.
02.02	Describe some of the careers available in the Business Information Management career pathway.
02.03	Identify common characteristics of the careers in the Business Information Management career pathway.
02.04	Research the history of the Business Information Management career pathway and describe how the careers have evolved and impacted society.
02.05	Identify skills required to successfully enter any career in the Business Information Management career pathway.



## CTE Standards and Benchmarks

02.06 Describe technologies associated in careers within the Business Information Management career pathway.

03.0 Demonstrate an understanding of the Human Resources Management career pathway. The student will be able to:

03.01 Define and use proper terminology associated with the Human Resources Management career pathway.

03.02 Describe some of the careers available in the Human Resources Management career pathway.

03.03 Identify common characteristics of the careers in the Human Resources Management career pathway.

03.04 Research the history of the Human Resources Management career pathway and describe how the careers have evolved and impacted society.

03.05 Identify skills required to successfully enter any career in the Human Resources Management career pathway.

03.06 Describe technologies associated in careers within the Human Resources Management career pathway.

04.0 Demonstrate an understanding of the Operations Management career pathway. The student will be able to:

04.01 Define and use proper terminology associated with the Operations Management career pathway.

04.02 Describe some of the careers available in the Operations Management career pathway.

04.03 Identify common characteristics of the careers in the Operations Management career pathway.

04.04 Research the history of the Operations Management career pathway and describe how the careers have evolved and impacted society.

04.05 Identify skills required to successfully enter any career in the Operations Management career pathway.

04.06 Describe technologies associated in careers within the Operations Management career pathway.

05.0 Demonstrate an understanding of the Administrative Support career pathway. The student will be able to:

05.01 Define and use proper terminology associated with the Administrative Support career pathway.

05.02 Describe some of the careers available in the Administrative Support career pathway.

05.03 Identify common characteristics of the careers in the Administrative Support career pathway.

05.04 Research the history of the Administrative Support career pathway and describe how the careers have evolved and impacted society.

05.05 Identify skills required to successfully enter any career in the Administrative Support career pathway.

05.06 Describe technologies associated in careers within the Administrative Support career pathway.

## CTE Standards and Benchmarks

06.0 Demonstrate an understanding of the Accounting career pathway. The student will be able to:

06.01 Define and use proper terminology associated with the Accounting career pathway.

06.02 Describe some of the careers available in the Accounting career pathway.

06.03 Identify common characteristics of the careers in the Accounting career pathway.

06.04 Research the history of the Accounting career pathway and describe how the careers have evolved and impacted society.

06.05 Identify skills required to successfully enter any career in the Accounting career pathway.

06.06 Describe technologies associated in careers within the Accounting career pathway.

07.0 Apply leadership and communication skills. The student will be able to:

07.01 Discuss the establishment and history of the FBLA and BPA organizations.

07.02 Identify the characteristics and responsibilities of organizational leaders.

07.03 Demonstrate parliamentary procedure skills during a meeting.

07.04 Participate on a committee which has an assigned task and report to the class.

07.05 Demonstrate effective communication skills through delivery of a speech, a slide presentation, or conducting a demonstration.

07.06 Use a computer to assist in the completion of a project related to the Business Management and Administration career cluster.

08.0 Describe how information technology is used in the Business Management and Administration career cluster. The student will be able to:

08.01 Identify information technology (IT) careers in the Business Management and Administration career cluster, including the responsibilities, tasks and skills they require.

08.02 Relate information technology project management concepts and terms to careers in the Business Management and Administration career cluster.

08.03 Manage information technology components typically used in professions of the Business Management and Administration career cluster.

08.04 Identify security-related ethical and legal IT issues faced by professionals in the Business Management and Administration career cluster.

09.0 Use information technology tools. The student will be able to:

09.01 Identify the functions of web browsers, and use them to access the World Wide Web and other computer resources typically used in the Business Management and Administration career cluster.

## CTE Standards and Benchmarks

09.02 Use e-mail clients to send simple messages and files to other Internet users.

09.03 Demonstrate ways to communicate effectively using Internet technology.

09.04 Use different types of web search engines effectively to locate information relevant to the Business Management and Administration career cluster.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students, including access to computers and appropriate software.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

Future Business Leaders of America (FBLA) and Business Professional of America (BPA) are the intercurricular career and technical student organizations providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Course Title:** Introduction to Business Management and Administration and Career Planning  
**Course Type:** Orientation/Exploratory and Career Planning  
**Career Cluster:** Business Management and Administration

**Secondary – Middle School**

Course Number	8370360
CIP Number	148370360M
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	FBLA BPA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Business Management and Administration career cluster. The content includes but is not limited to fundamental knowledge and skills related to business functions in the Business Management and Administration cluster. Reinforcement of academic skills occurs through classroom instruction and applied laboratory procedures.

Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

## Course/Program Structure

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8370360	Introduction to Business Management and Administration and Career Planning	BUS ED 1 @2 TC COOP ED @7 VOE @7	Semester

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate an understanding of the General Management career pathway.
- 02.0 Demonstrate an understanding of the Business Information Management career pathway.
- 03.0 Demonstrate an understanding of the Human Resources Management career pathway.
- 04.0 Demonstrate an understanding of the Operations Management career pathway.
- 05.0 Demonstrate an understanding of the Administrative Support career pathway.
- 06.0 Demonstrate an understanding of the Accounting career pathway.
- 07.0 Apply leadership and communication skills.
- 08.0 Describe how information technology is used in the Business Management and Administration career cluster.
- 09.0 Use information technology tools.

### **Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes:**

- 10.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.
- 11.0 Develop skills to locate, evaluate, and interpret career information.
- 12.0 Identify and demonstrate processes for making short and long term goals.
- 13.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
- 14.0 Understand the relationship between educational achievement and career choices/postsecondary options.
- 15.0 Identify a career cluster and related pathways through an interest assessment that match career and education goals.
- 16.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
- 17.0 Demonstrate knowledge of technology and its application in career fields/clusters.



**Florida Department of Education  
Student Performance Standards**

**Course Title:** Introduction to Business, Management and Administration and Career Planning  
**Course Number:** 8370360  
**Course Length:** Semester

**Course Description:**

Beginning with a broad overview of the Business Management and Administration career cluster, students are introduced to the terminology, careers, history, required skills, and technologies associated with each pathway in the Business Management and Administration career cluster. Additionally, they will be provided with opportunities to acquire and demonstrate beginning leadership skills.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate an understanding of the General Management career pathway. The student will be able to:
01.01	Define and use proper terminology associated with the General Management career pathway.
01.02	Describe some of the careers available in the General Management career pathway.
01.03	Identify common characteristics of the careers in the General Management career pathway.
01.04	Research the history of the General Management career pathway and describe how the associated careers have evolved and impacted society.
01.05	Identify skills required to successfully enter any career in the General Management career pathway.
01.06	Describe technologies associated in careers within the General Management career pathway.
02.0	Demonstrate an understanding of the Business Information Management career pathway. The student will be able to:
02.01	Define and use proper terminology associated with the Business Information Management career pathway.
02.02	Describe some of the careers available in the Business Information Management career pathway.
02.03	Identify common characteristics of the careers in the Business Information Management career pathway.
02.04	Research the history of the Business Information Management career pathway and describe how the careers have evolved and impacted society.
02.05	Identify skills required to successfully enter any career in the Business Information Management career pathway.

## CTE Standards and Benchmarks

02.06 Describe technologies associated in careers within the Business Information Management career pathway.

03.0 Demonstrate an understanding of the Human Resources Management career pathway. The student will be able to:

03.01 Define and use proper terminology associated with the Human Resources Management career pathway.

03.02 Describe some of the careers available in the Human Resources Management career pathway.

03.03 Identify common characteristics of the careers in the Human Resources Management career pathway.

03.04 Research the history of the Human Resources Management career pathway and describe how the careers have evolved and impacted society.

03.05 Identify skills required to successfully enter any career in the Human Resources Management career pathway.

03.06 Describe technologies associated in careers within the Human Resources Management career pathway.

04.0 Demonstrate an understanding of the Operations Management career pathway. The student will be able to:

04.01 Define and use proper terminology associated with the Operations Management career pathway.

04.02 Describe some of the careers available in the Operations Management career pathway.

04.03 Identify common characteristics of the careers in the Operations Management career pathway.

04.04 Research the history of the Operations Management career pathway and describe how the careers have evolved and impacted society.

04.05 Identify skills required to successfully enter any career in the Operations Management career pathway.

04.06 Describe technologies associated in careers within the Operations Management career pathway.

05.0 Demonstrate an understanding of the Administrative Support career pathway. The student will be able to:

05.01 Define and use proper terminology associated with the Administrative Support career pathway.

05.02 Describe some of the careers available in the Administrative Support career pathway.

05.03 Identify common characteristics of the careers in the Administrative Support career pathway.

05.04 Research the history of the Administrative Support career pathway and describe how the careers have evolved and impacted society.

05.05 Identify skills required to successfully enter any career in the Administrative Support career pathway.

05.06 Describe technologies associated in careers within the Administrative Support career pathway.

## CTE Standards and Benchmarks

06.0 Demonstrate an understanding of the Accounting career pathway. The student will be able to:

06.01 Define and use proper terminology associated with the Accounting career pathway.

06.02 Describe some of the careers available in the Accounting career pathway.

06.03 Identify common characteristics of the careers in the Accounting career pathway.

06.04 Research the history of the Accounting career pathway and describe how the careers have evolved and impacted society.

06.05 Identify skills required to successfully enter any career in the Accounting career pathway.

06.06 Describe technologies associated in careers within the Accounting career pathway.

07.0 Apply leadership and communication skills. The student will be able to:

07.01 Discuss the establishment and history of the FBLA and BPA organizations.

07.02 Identify the characteristics and responsibilities of organizational leaders.

07.03 Demonstrate parliamentary procedure skills during a meeting.

07.04 Participate on a committee which has an assigned task and report to the class.

07.05 Demonstrate effective communication skills through delivery of a speech, a slide presentation, or conducting a demonstration.

07.06 Use a computer to assist in the completion of a project related to the Business Management and Administration career cluster.

08.0 Describe how information technology is used in the Business Management and Administration career cluster. The student will be able to:

08.01 Identify information technology (IT) careers in the Business Management and Administration career cluster, including the responsibilities, tasks and skills they require.

08.02 Relate information technology project management concepts and terms to careers in the Business Management and Administration career cluster.

08.03 Manage information technology components typically used in professions of the Business Management and Administration career cluster.

08.04 Identify security-related ethical and legal IT issues faced by professionals in the Business Management and Administration career cluster.

09.0 Use information technology tools. The student will be able to:

09.01 Identify the functions of web browsers, and use them to access the World Wide Web and other computer resources typically used in the Business Management and Administration career cluster.

## CTE Standards and Benchmarks

09.02 Use e-mail clients to send simple messages and files to other Internet users.

09.03 Demonstrate ways to communicate effectively using Internet technology.

09.04 Use different types of web search engines effectively to locate information relevant to the Business Management and Administration career cluster.

### **Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes.**

The student will be able to:

10.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.

11.0 Develop skills to locate, evaluate, and interpret career information.

12.0 Identify and demonstrate processes for making short and long term goals.

13.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.

14.0 Understand the relationship between educational achievement and career choices/postsecondary options.

15.0 Identify a career cluster and related pathways through an interest assessment that match career and education goals.

16.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.

17.0 Demonstrate knowledge of technology and its application in career fields/clusters.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students, including access to computers and appropriate software.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career Planning**

**Effective July 1, 2019, per Section 1003.4156, Florida Statutes (F.S.), for students to meet middle grades promotion requirements, a Career and Education Planning course must be completed in either sixth, seventh, or eighth grade.** These courses should be taught integrating the eight career and education planning course standards. The MyCareerShines powered by Kuder® career planning system is available free of charge to all Florida middle and high schools to assist students in completing research-based career assessments, exploring career options and developing an online academic and career plan.

### **Career and Technical Student Organization (CTSO)**

Future Business Leaders of America (FBLA) and Business Professional of America (BPA) are the intercultural career and technical student organizations providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

## **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Course Title:** Orientation to Health Science Professions  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Health Science

**Secondary – Middle School**

Course Number	8400110
CIP Number	03179999OR
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b>Course Structure</b> section.
CTSO	HOSA: Future Health Professionals

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Health Science career cluster.

The content includes but is not limited to basic information about the kinds of jobs and workers involved the various career paths, financial rewards, occupational hazards, and educational requirements. Information concerning the practices for promoting good health is included

Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Course Structure**

This program is a planned sequence of instruction consisting of 1 course.

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8400110	Orientation to Health Science Professions	ANY HEALTH OCCUP G *(See DOE approved list) HEALTH 6	Semester

### **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Recognize progress in health care service.
- 02.0 Demonstrate an awareness of health careers and related employability skills.
- 03.0 Recognize basic communication skills in the healthcare setting.
- 04.0 Perform basic mathematical calculations and demonstrate problem solving skills used by the health care worker.
- 05.0 Demonstrate an understanding of principles of wellness and disease.
- 06.0 Perform basic health care skills.
- 07.0 Demonstrate occupational safety skills related to the employer, employee and the patient in the healthcare setting.



**Florida Department of Education  
Student Performance Standards**

**Course Title:**           **Orientation to Health Science Professions**  
**Course Number:**       **8400110**  
**Course Length:**       **Semester**

<b>CTE Standards and Benchmarks</b>	
01.0	Recognize progress in health care service. – The student will be able to:
01.01	Compare medical progress from ancient times to the present. For example: surgical techniques, anesthesia, treatment and equipment.
01.02	Discuss health care leaders who brought about change and progress from ancient times to the present. For example: Hippocrates, Edward Jenner, Joseph Lister, Alexander Fleming, Marie Curie, and Clara Barton.
01.03	Demonstrate knowledge of how advances in science have impacted beliefs and practices from ancient times to the present.
02.0	Demonstrate an awareness of health careers and related employability skills. – The student will be able to:
02.01	Complete a career inventory to match student interest with potential healthcare careers.
02.02	List employability/soft skills and characteristics needed to be successful in the workplace. For Example: punctuality, dependability, and communication skills.
02.03	Identify the characteristics of healthcare professionals.
02.04	Identify several professions in each of the Health Science Career Pathways: Therapeutic Services, Diagnostic Services, Health Informatics, Support Services, Bio-technology Research and Development.
02.05	List the advantages and disadvantages of one occupation in each pathway including the following factors; job description, career pathway/area of interest, and salary range.
03.0	Recognize basic communication skills in the healthcare setting. – The student will be able to:
03.01	Demonstrate an understanding of interpersonal communication skills such as active listening, verbal, non-verbal and written language.
03.02	Demonstrate the ability to break medical terms into their word parts.
03.03	Discuss common abbreviations and symbols used in healthcare professions.
03.04	Identify technology used for communication in healthcare professions and proper etiquette for its' use.
04.0	Perform basic mathematical calculations and demonstrate problem solving skills used by the health care worker. – The student will be able to:

## CTE Standards and Benchmarks

04.01	Describe the importance of why accurate calculations and effective problem solving skills are required.
04.02	Calculate mathematical problems and measurements related to health care.
04.03	Convert common weights, measure, and volumes to metric as applied in the health care setting.
04.04	Accurately tell time using both standard and international/military time formats.
05.0	Demonstrate an understanding of principles of wellness and disease. – The student will be able to:
05.01	Describe how cultural and individual differences relate to wellness and quality of life and how these differences impact health problems of society.
05.02	Demonstrate an understanding of the risk factors that contribute to illness.
05.03	Identify consequences of substance abuse and high risk behaviors.
05.04	Describe strategies for prevention of diseases including health screenings and examinations.
05.05	Explain basic concepts of positive self-image, body and mental wellness and the effect stress has on both.
05.06	Explore the need for proper nutrition and water intake to maintain wellness.
06.0	Perform basic health care skills. – The student will be able to:
06.01	Measure and record (graph) height and weight.
06.02	Measure and record temperature, pulse, and respiration (TPR).
06.03	Demonstrate medical aseptic technique by using proper hand washing skills.
06.04	Demonstrate hands-only CPR.
07.0	Demonstrate occupational safety skills related to the employer, employee and the patient in the healthcare setting. – The student will be able to:
07.01	Recognize safety concerns related to the practice of health care.
07.02	Demonstrate an understanding for the importance of fire safety practices including prevention, evacuation plans (R.A.C.E.) and the use of a fire extinguisher (P.A.S.S.).
07.03	Demonstrate safety habits that will prevent injury to health care workers, co-workers, and patients including proper use personal protective equipment (PPE) and infection control practices.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

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English Language Development (ELD) Standards Special Notes:

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### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

The intended progression for the Health Science Middle School courses is Introduction to Health Science Career Pathways (8709350 & 8709360), Orientation to Health Science Professions (8400110) and Exploration of Health Science Professions (8400310 & 8400210). By offering the middle school courses in the intended progression, each course increases in complexity, rigor and skill level as appropriate.

Special projects that are related to occupational clusters are provided, including making dental molds, designing eye glasses, fingerprinting, and role playing activities of daily living as a handicapped individual, developing an emergency evacuation plan for their own home, menu planning, and visualizing x-rays. Team teaching and integration of the curriculum with English, Math and Science is encouraged. Guest speakers from industry make an important contribution to the effectiveness of this course.

### **Career and Technical Student Organization (CTSO)**

HOSA: Future Health Professionals is the intercurricular career and technical student organization providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

## **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

**Florida Department of Education  
Curriculum Framework**

**Course Title:** Exploration of Health Science Professions and Career Planning  
**Course Type:** Orientation/Exploratory and Career Planning  
**Career Cluster:** Health Science

**Secondary – Middle School**

Course Number	8400210
CIP Number	03179999CE
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	HOSA: Future Health Professionals

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Health Science career cluster. The content includes but is not limited to exploratory activities relating to all health occupational clusters. The course also includes an introduction to medical ethics, consumerism, and characteristics of health care workers, community health agencies and basic computer literacy.

Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

The purpose of this course is to give students initial exposure to the skills and attitudes associated with a broad range of occupations relating to careers in health, including job requirements and tasks performed, to assist students in making informed decisions regarding their future academic and occupational goals.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

## **Course Structure**

This program is a planned sequence of instruction consisting of 1 course.

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8400210	Exploration of Health Science Professions and Career Planning	ANY HEALTH OCCUP G *(See DOE approved list) FAM CON SC 1 HEALTH 6 Any Field When Certificate Reflects Bachelor's Degree or Higher	Semester

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate a well-rounded understanding of healthcare professions.
- 02.0 Demonstrate an understanding of the importance of legal and ethical behavior related to health care.
- 03.0 Perform basic communication skills in the healthcare setting.
- 04.0 Perform basic mathematical calculations and demonstrate problem solving skills used by the health care worker.
- 05.0 Apply scientific principles to the health care field.
- 06.0 Perform basic health care skills.
- 07.0 Demonstrate occupational safety skills related to the employer, employee and the patient in the healthcare setting.

### **Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes.**

- 08.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.
- 09.0 Develop skills to locate, evaluate, and interpret career information.
- 10.0 Identify and demonstrate processes for making short and long term goals.
- 11.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
- 12.0 Understand the relationship between educational achievement and career choices/postsecondary options.
- 13.0 Identify a career cluster and related pathways through an interest assessment that match career and education goals.
- 14.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
- 15.0 Demonstrate knowledge of technology and its application in career fields/clusters.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Exploration of Health Science Professions and Career Planning  
**Course Number:** 8400210  
**Course Length:** Semester

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate a well-rounded understanding of healthcare professions. – The student will be able to:
01.01	Explore the major scientific advancements that have contributed to the evolution of healthcare.
01.02	Research contributions made in the field of medical science and their impact on the health care field.
01.03	Identify types of education and training levels (OJT, HSTE, AA, BS/BA, MS, and Doctoral) as related to health careers.
01.04	Compare and contrast the health science career pathways: Therapeutic Services, Diagnostic Services, Health Informatics, Support Services, Bio-technology Research and Development.
01.05	List the advantages and disadvantages of one occupation in each pathway including the following factors; job description, career pathway/area of interest, salary range, educational requirements, and job outlook.
01.06	Research and describe a healthcare profession of interest identified through a career inventory assessment.
02.0	Demonstrate an understanding of the importance of legal and ethical behavior related to health care. – The student will be able to:
02.01	Identify responsibilities in maintaining ethical standards, confidentiality, and the patient's rights.
02.02	Identify and define terms related to the legal and ethical aspects of the health care industry. For example: malpractice, negligence, invasion of privacy, quackery, ethics and law, Patients' Bill of Rights, licensure.
03.0	Perform basic communication skills in the healthcare setting. – The student will be able to:
03.01	Demonstrate interpersonal communication skills such as active listening, verbal, non-verbal and written language in the health care setting.
03.02	Identify technology used for communication in healthcare professions and proper etiquette for its' use.
03.03	Demonstrate use of medical terminology and abbreviations associated with healthcare professions.
04.0	Perform basic mathematical calculations and demonstrate problem solving skills used by the health care worker. – The student will be able to:
04.01	Analyze case studies or current events where adverse consequences resulted from mathematical medical error.



## CTE Standards and Benchmarks

04.02	Convert common weights, measure, and volumes to metric as applied in the health care setting.
04.03	Accurately identify and perform appropriate numeric procedures with problems found in numeric, symbolic, or word form as they relate to the occupations.
04.04	Accurately tell time using both standard and international/military time formats.
05.0	Apply scientific principles to the health care field. – The student will be able to:
05.01	Identify the overall organization of the human body.
05.02	Describe the basic structure and function of the body systems of the human body.
05.03	Describe how the systems of the human body work together to maintain homeostasis.
05.04	Describe mechanisms of disease transmission, the Chain of Infection, prevention, and standard precautions.
06.0	Perform basic health care skills. – The student will be able to:
06.01	Measure and record (graph) height and weight.
06.02	Measure and record temperature, pulse, blood pressure, and respiration while recognizing the normal ranges for each.
06.03	Demonstrate medical aseptic technique by hand washing, gloving and application of personal protective equipment (PPE).
06.04	Demonstrate basic first aid skills (i.e. bleeding, fractures, and musculoskeletal emergencies).
06.05	Demonstrate Cardiopulmonary Resuscitation (CPR) and care for a choking victim.
06.06	Demonstrate basic skills used within the healthcare professions may include the following:
06.06.01	Visualizing X-rays
06.06.02	Conduct vision testing (Snellen chart, peripheral vision, color blindness)
06.06.03	Conduct basic hearing test
06.06.04	Measure respiratory capacity/output
06.06.05	Range-of-Motion exercises
06.06.06	Conduct simulated ABO blood-typing
07.0	Demonstrate occupational safety skills related to the employer, employee and the patient in the healthcare setting. – The student will be able to:
07.01	Recognize safety concerns related to the practice of health care.
07.02	Demonstrate safety habits that will prevent injury to health care workers, co-workers, and patients including proper use personal protective equipment (PPE) and infection control practices.
07.03	Identify poisons and hazardous materials to include the use and interpretation of a Safety Data Sheet (SDS) form.

## CTE Standards and Benchmarks

- |       |   |
|-------|---|
| 07.04 | Demonstrate an understanding for the importance of fire safety practices including prevention, evacuation plans (R.A.C.E.) and the use of a fire extinguisher (P.A.S.S.). |
| 07.05 | Explore basic information on the dangers of blood borne diseases in healthcare including but not limited to HIV/AIDS and Hepatitis B.                                     |
| 07.06 | Perform proper body mechanics to prevent self and patient injuries.   |

**Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes.**

The student will be able to:

- |      |   |
|------|---|
| 08.0 | Describe the influences that societal, economic, and technological changes have on employment trends and future training.                       |
| 09.0 | Develop skills to locate, evaluate, and interpret career information.   |
| 10.0 | Identify and demonstrate processes for making short and long term goals.  |
| 11.0 | Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship. |
| 12.0 | Understand the relationship between educational achievement and career choices/postsecondary options.   |
| 13.0 | Identify a career cluster and related pathways through an interest assessment that match career and education goals.                            |
| 14.0 | Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.      |
| 15.0 | Demonstrate knowledge of technology and its application in career fields/clusters.  |

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

The intended progression for the Health Science Middle School courses is Introduction to Health Science Career Pathways (8709350 & 8709360), Orientation to Health Science Professions (8400110) and Exploration of Health Science Professions (8400310 & 8400210). By offering the middle school courses in the intended progression, each course increases in complexity, rigor and skill level as appropriate.

Special projects that are related to each occupational cluster are provided, including role playing activities related to specific careers, visualizing x-rays and crutch-walking, operating the microscope, and specific lab procedures. Team teaching and integration of the curriculum with English, Math and Science is encouraged.

Guest speakers from industry and related field trips make important contributions to the effectiveness of this course.

## **Career Planning**

**Effective July 1, 2019, per Section 1003.4156, Florida Statutes (F.S.), for students to meet middle grades promotion requirements, a Career and Education Planning course must be completed in either sixth, seventh, or eighth grade.** These courses should be taught integrating the eight career and education planning course standards. The MyCareerShines powered by Kuder® career planning system is available free of charge to all Florida middle and high schools to assist students in completing research-based career assessments, exploring career options and developing an online academic and career plan.

## **Career and Technical Student Organization (CTSO)**

HOSA: Future Health Professionals is the intercurricular career and technical student organization providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

## **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

**Florida Department of Education  
Curriculum Framework**

**Course Title:** Exploration of Health Science Professions  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Health Science

**Secondary – Middle School**

Course Number	8400310
CIP Number	03179999EX
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	HOSA: Future Health Professionals

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Health Science career cluster. The content includes but is not limited to exploratory activities relating to all health occupational clusters. The course also includes an introduction to medical ethics, consumerism, and characteristics of health care workers, community health agencies and basic computer literacy.

Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

The purpose of this course is to give students initial exposure to the skills and attitudes associated with a broad range of occupations relating to careers in health, including job requirements and tasks performed, to assist students in making informed decisions regarding their future academic and occupational goals.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

## **Course Structure**

This program is a planned sequence of instruction consisting of 1 course.

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8400310	Exploration of Health Science Professions	ANY HEALTH OCCUP G *(See DOE approved list) FAM CON SC 1 HEALTH 6 Any Field When Certificate Reflects Bachelor's Degree or Higher	Semester

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate a well-rounded understanding of healthcare professions.
- 02.0 Demonstrate an understanding of the importance of legal and ethical behavior related to health care.
- 03.0 Perform basic communication skills in the healthcare setting.
- 04.0 Perform basic mathematical calculations and demonstrate problem solving skills used by the health care worker.
- 05.0 Apply scientific principles to the health care field.
- 06.0 Perform basic health care skills.
- 07.0 Demonstrate occupational safety skills related to the employer, employee and the patient in the healthcare setting.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Exploration of Health Science Professions  
**Course Number:** 8400310  
**Course Length:** Semester

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate a well-rounded understanding of healthcare professions. – The student will be able to:
01.01	Explore the major scientific advancements that have contributed to the evolution of healthcare.
01.02	Research contributions made in the field of medical science and their impact on the health care field.
01.03	Identify types of education and training levels (OJT, HSTE, AA, BS/BA, MS, and Doctoral) as related to health careers.
01.04	Compare and contrast the health science career pathways: Therapeutic Services, Diagnostic Services, Health Informatics, Support Services, Bio-technology Research and Development.
01.05	List the advantages and disadvantages of one occupation in each pathway including the following factors; job description, career pathway/area of interest, salary range, educational requirements and job outlook.
01.06	Research and describe a healthcare profession of interest identified through a career inventory assessment.
02.0	Demonstrate an understanding of the importance of legal and ethical behavior related to health care. – The student will be able to:
02.01	Identify responsibilities in maintaining ethical standards, confidentiality, and the patient's rights.
02.02	Identify and define terms related to the legal and ethical aspects of the health care industry. For example: malpractice, negligence, invasion of privacy, quackery, ethics and law, Patients' Bill of Rights, licensure.
03.0	Perform basic communication skills in the healthcare setting. – The student will be able to:
03.01	Demonstrate interpersonal communication skills such as active listening, verbal, non-verbal and written language in the health care setting.
03.02	Identify technology used for communication in healthcare professions and proper etiquette for its' use.
03.03	Demonstrate use of medical terminology and abbreviations associated with healthcare professions.
04.0	Perform basic mathematical calculations and demonstrate problem solving skills used by the health care worker. – The student will be able to:
04.01	Analyze case studies or current events where adverse consequences resulted from mathematical medical error.



## CTE Standards and Benchmarks

04.02	Convert common weights, measure, and volumes to metric as applied in the health care setting.
04.03	Accurately identify and perform appropriate numeric procedures with problems found in numeric, symbolic, or word form as they relate to the occupations.
04.04	Accurately tell time using both standard and international/military time formats.
05.0	Apply scientific principles to the health care field. – The student will be able to:
05.01	Identify the overall organization of the human body.
05.02	Describe the basic structure and function of the body systems of the human body.
05.03	Describe how the systems of the human body work together to maintain homeostasis.
05.04	Describe mechanisms of disease transmission, the Chain of Infection, prevention and standard precautions.
06.0	Perform basic health care skills. – The student will be able to:
06.01	Measure and record (graph) height and weight.
06.02	Measure and record temperature, pulse, blood pressure and respiration while recognizing the normal ranges for each.
06.03	Demonstrate medical aseptic technique by hand washing, gloving and application of personal protective equipment (PPE).
06.04	Demonstrate basic first aid skills (i.e. bleeding, fractures, and musculoskeletal emergencies).
06.05	Demonstrate Cardiopulmonary Resuscitation (CPR) and care for a choking victim.
06.06	Demonstrate basic skills used within the healthcare professions may include the following:
06.06.01	Visualizing X-rays
06.06.02	Conduct vision testing (Snellen chart, peripheral vision, color blindness)
06.06.03	Conduct basic hearing test
06.06.04	Measure respiratory capacity/output
06.06.05	Range-of-Motion exercises
06.06.06	Conduct simulated ABO blood-typing
07.0	Demonstrate occupational safety skills related to the employer, employee, and the patient in the healthcare setting. – The student will be able to:
07.01	Recognize safety concerns related to the practice of health care.
07.02	Demonstrate safety habits that will prevent injury to health care workers, co-workers, and patients including proper use personal protective equipment (PPE) and infection control practices.
07.03	Identify poisons and hazardous materials to include the use and interpretation of a Safety Data Sheet (SDS) form.

## CTE Standards and Benchmarks

- |       |   |
|-------|---|
| 07.04 | Demonstrate an understanding for the importance of fire safety practices including prevention, evacuation plans (R.A.C.E.) and the use of a fire extinguisher (P.A.S.S.). |
| 07.05 | Explore basic information on the dangers of blood borne diseases in healthcare including but not limited to HIV/AIDS and Hepatitis B.                                     |
| 07.06 | Perform proper body mechanics to prevent self and patient injuries.   |

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

The intended progression for the Health Science Middle School courses is Introduction to Health Science Career Pathways (8709350 & 8709360), Orientation to Health Science Professions (8400110) and Exploration of Health Science Professions (8400310 & 8400210). By offering the middle school courses in the intended progression, each course increases in complexity, rigor and skill level as appropriate.

Special projects that are related to each occupational cluster are provided, including role playing activities related to specific careers, visualizing x-rays and crutch-walking, operating the microscope, and specific lab procedures. Team teaching and integration of the curriculum with English, Math and Science is encouraged.

Guest speakers from industry and related field trips make important contributions to the effectiveness of this course.

### **Career and Technical Student Organization (CTSO)**

HOSA: Future Health Professionals is the intercurricular career and technical student organization providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

## **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Course Title:** Fundamentals of Careers in Education  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Education & Training

**Secondary – Middle School**

Program Number	8409100
CIP Number	0713129905
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b>Course Structure</b> section.
CTSO	FCCLA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Education & Training career cluster. The content includes but is not limited to the development of leadership skills, communication skills, and employability skills; resource management; exploration of careers in the field of education; the importance of health and safety in the learning environment; children’s nutritional needs; developmental stages of children and appropriate learning activities; observation of children; and the use of technology in education-related careers. Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8409100	Fundamentals of Careers in Education	FAM CON SCI	Semester

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate skills for success.
- 02.0 Analyze careers in the field of education.
- 03.0 Demonstrate career decisions as they relate to the teaching profession.
- 04.0 Demonstrate the skills involved in effective resource management.
- 05.0 Practice health and safety in the learning environment.
- 06.0 Analyze the nutritional needs of children.
- 07.0 Analyze physical, emotional, intellectual and social development of children.
- 08.0 Exhibit best practices for learning environments.
- 09.0 Demonstrate effective communication skills.
- 10.0 Recognize age-appropriate learning activities.
- 11.0 Identify and understand basic observation techniques and how they are used to evaluate children's developmental milestones.
- 12.0 Utilize technology as it relates to the field of education.
- 13.0 Describe and use communication features of information technology.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Fundamentals of Careers in Education  
**Course Number:** 8409100  
**Course Length:** Semester

**Course Description:**

This middle school course covers leadership, employability, communication, and resource management skills. Students will research careers in the field of education. Students will learn the importance of health and safety in the learning environment, all stages of the developing child, appropriate learning activities, and techniques for observing children.

<b>CTE Standards and Benchmarks</b>	
01.01	Identify different types of professional and community service organizations, including career and technical student organizations that relate to the child and education.
01.02	Identify roles and responsibilities of members of professional and community service organizations, including career and technical student organizations.
01.03	Develop human relationship skills such as a positive work ethic, positive attitudes towards others, and manners in the workplace.
01.04	Identify and utilize the planning process to accomplish personal and professional goals.
02.0	Analyze careers in the field of education. The student will be able to:
02.01	Describe available careers in education.
02.02	Classify careers from entry level to professional level.
02.03	Explore entrepreneurship opportunities in the field of education.
02.04	Research and present information on careers in Education to include the roles and responsibilities, opportunities for employment, and requirements for training and certification.
03.0	Demonstrate career decisions as they relate to the teaching profession. The student will be able to
03.01	Demonstrate employability skills as they relate to teaching.
03.02	Identify personal interests, aptitudes, talents and abilities that can contribute to positive self-esteem and success in the work place.
03.03	Practice teamwork skills.



## CTE Standards and Benchmarks

03.04 Practice positive work ethics and identify negative work ethics, including influences of social media on job performance.

03.05 Apply math, reading, science, and critical thinking skills as they relate to the field of education.

03.06 Describe and utilize different job search skills available

03.07 Develop short-term and long-term goals for personal and professional achievement.

04.0 Demonstrate the skills involved in effective resource management. The student will be able to:

04.01 Identify steps of the decision-making process.

04.02 Distinguish between a need and a want.

04.03 Explain how values and goals affect decisions.

04.04 Develop a budget and savings plan.

05.0 Practice health and safety in the learning environment. The student will be able to:

05.01 Describe the indicators of a healthy child.

05.02 Recognize the indicators of childhood illnesses, their causes and preventive measures.

05.03 Identify common indicators of child abuse and neglect.

05.04 Research laws that relate to reporting suspected child abuse.

05.05 List community agencies that provide help to abused children.

05.06 Identify safety guidelines to follow when caring for children.

05.07 Create a response plan for emergency situations.

05.08 Research available certifications for babysitters.

06.0 Analyze the nutritional needs of children. The student will be able to:

06.01 Identify nutritional needs of children.

06.02 Research foods that may be harmful to children, i.e. food allergies.

06.03 Research long term effects of childhood obesity and poor nutrition.

## CTE Standards and Benchmarks

06.04 Plan and prepare nutritious snacks for children using appropriate safety and sanitation procedures.

07.0 Analyze the physical, emotional, intellectual and social development of children. The student will be able to:

07.01 Describe common physical, emotional, intellectual and social milestones for children.

07.02 Create and demonstrate an age appropriate activity to promote a child's growth and development.

07.03 Research and demonstrate adaptations appropriate for a "special needs" child.

08.0 Exhibit best practices for learning environments. The student will be able to:

08.01 Arrange learning centers that provide for a child's exploration, discovery and development.

08.02 Develop guidelines for establishing activities, routines and transitions for children.

09.0 Demonstrate effective communication skills. The student will be able to:

09.01 Describe why communication is the basis for all relationships.

09.02 Distinguish between non-assertive, assertive, and aggressive communication.

09.03 Demonstrate communication skills that promote positive relationships with children.

09.04 Define and explain appropriate discipline and guidance procedures for children.

09.05 Practice active listening skills.

09.06 Utilize conflict resolution skills.

10.0 Recognize age-appropriate learning activities. The student will be able to:

10.01 Identify age-appropriate learning activities.

10.02 Evaluate games, equipment, activities, books, and play materials for age appropriateness.

11.0 Identify and understand basic observation techniques and how they are used to evaluate children's developmental milestones. The student will be able to:

11.01 Compare and contrast basic observation techniques in relation to the learning environment.

12.0 Utilize technology as it relates to the field of education. The student will be able to:

12.01 Identify technology utilized in the field of education.

## CTE Standards and Benchmarks

12.02 Analyze technology trends impacting education.

12.03 Apply technology for efficient operation of the learning environment.

13.0 Describe and use communication features of information technology. The student will be able to:

13.01 Identify and categorize usage of different forms of storage devices and backup media.

13.02 Recognize essential database concepts such as bookmarking, web browsers, caching and cookies.

13.03 Identify and describe types of file systems and classify common file extensions based on software application programs used in the workplace environment.

13.04 Define important internet communications protocols and their roles in delivering basic Internet services.

13.05 Identify security issues related to Internet clients including ethical issues using social media.

13.06 Identify and use principles of Personal Information Management (PIM), including common applications.

13.07 Efficiently transmit text and attachments using email systems used in the workplace environment.

13.08 Conduct a webcast and related services.

13.09 Represent technical issues to a non-technical audience.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

Family, Career and Community Leaders of America (FCCLA) is the inter-curricular career and technical student organization providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

Course Title: Fundamentals of Careers in Education and Career Planning  
Course Type: Orientation/Exploratory and Career Planning  
Career Cluster: Education & Training

Secondary – Middle School	
Program Number	8409200
CIP Number	0713129906
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b>Course Structure</b> section.
CTSO	FCCLA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Education & Training career cluster. The content includes but is not limited to the development of leadership skills, communication skills, and employability skills; resource management; exploration of careers in the field of education; the importance of health and safety in the learning environment; children’s nutritional needs; developmental stages of children and appropriate learning activities; observation of children; and the use of technology in education-related careers. Reinforcement of academic skills occurs through classroom instruction and applied laboratory procedures.

Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8409200	Fundamentals of Careers in Education and Career Planning	FAM CON SC 1	Semester

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate skills for success.
- 02.0 Analyze careers in the field of education.
- 03.0 Demonstrate career decisions as they relate to the teaching profession.
- 04.0 Demonstrate the skills involved in effective resource management.
- 05.0 Practice health and safety in the learning environment.
- 06.0 Analyze the nutritional needs of children.
- 07.0 Analyze physical, emotional, intellectual and social development of children.
- 08.0 Exhibit best practices for learning environments.
- 09.0 Demonstrate effective communication skills.
- 10.0 Recognize age-appropriate learning activities.
- 11.0 Identify and understand basic observation techniques and how they are used to evaluate children's developmental milestones.
- 12.0 Utilize technology as it relates to the field of education.
- 13.0 Describe and use communication features of information technology.

## **Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes.**

- 14.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.
- 15.0 Develop skills to locate, evaluate, and interpret career information.
- 16.0 Identify and demonstrate processes for making short and long term goals.
- 17.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
- 18.0 Understand the relationship between educational achievement and career choices/postsecondary options.
- 19.0 Identify a career cluster and related pathways through an interest assessment that match career and education goals.
- 20.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
- 21.0 Demonstrate knowledge of technology and its application in career fields/clusters.



Florida Department of Education  
Student Performance Standards

Course Title: Fundamentals of Careers in Education and Career Planning  
Course Number: 8409200  
Course Length: Semester

Course Description:

This middle school course covers leadership, employability, communication, and resource management skills. Students will research careers in the field of education. Students will learn the importance of health and safety in the learning environment, all stages of the developing child, appropriate learning activities, and techniques for observing children.

CTE Standards and Benchmarks	
01.0	Demonstrate skills for success. The student will be able to:
01.01	Identify different types of professional and community service organizations, including career and technical student organizations that relate to the child and education.
01.02	Identify roles and responsibilities of members of professional and community service organizations, including career and technical student organizations.
01.03	Develop human relationship skills such as a positive work ethic, positive attitudes towards others, and manners in the workplace.
01.04	Identify and utilize the planning process to accomplish personal and professional goals.
02.0	Analyze careers in the field of education. The student will be able to:
02.01	Describe available careers in education.
02.02	Classify careers from entry level to professional level.
02.03	Explore entrepreneurship opportunities in the field of education.
02.04	Research and present information on careers in Education to include the roles and responsibilities, opportunities for employment, and requirements for training and certification.
03.0	Demonstrate career decisions as they relate to the teaching profession. The student will be able to
03.01	Demonstrate employability skills as they relate to teaching.
03.02	Identify personal interests, aptitudes, talents and abilities that can contribute to positive self-esteem and success in the work place.
03.03	Practice teamwork skills.

03.04	Practice positive work ethics and identify negative work ethics, including influences of social media on job performance.
03.05	Apply math, reading, science, and critical thinking skills as they relate to the field of education.
03.06	Describe and utilize different job search skills available
03.07	Develop short-term and long-term goals for personal and professional achievement.
04.0	Demonstrate the skills involved in effective resource management. The student will be able to:
04.01	Identify steps of the decision-making process.
04.02	Distinguish between a need and a want.
04.03	Explain how values and goals affect decisions.
04.04	Develop a budget and savings plan.
05.0	Practice health and safety in the learning environment. The student will be able to:
05.01	Describe the indicators of a healthy child.
05.02	Recognize the indicators of childhood illnesses, their causes and preventive measures.
05.03	Identify common indicators of child abuse and neglect.
05.04	Research laws that relate to reporting suspected child abuse.
05.05	List community agencies that provide help to abused children.
05.06	Identify safety guidelines to follow when caring for children.
05.07	Create a response plan for emergency situations.
05.08	Research available certifications for babysitters.
06.0	Analyze the nutritional needs of children. The student will be able to:
06.01	Identify nutritional needs of children.
06.02	Research foods that may be harmful to children, i.e. food allergies.
06.03	Research long term effects of childhood obesity and poor nutrition.
06.04	Plan and prepare nutritious snacks for children using appropriate safety and sanitation procedures.

07.0	Analyze the physical, emotional, intellectual and social development of children. The student will be able to:
07.01	Describe common physical, emotional, intellectual and social milestones for children.
07.02	Create and demonstrate an age appropriate activity to promote a child's growth and development.
07.03	Research and demonstrate adaptations appropriate for a "special needs" child.
08.0	Exhibit best practices for learning environments. The student will be able to:
08.01	Arrange learning centers that provide for a child's exploration, discovery and development.
08.02	Develop guidelines for establishing activities, routines and transitions for children.
09.0	Demonstrate effective communication skills. The student will be able to:
09.01	Describe why communication is the basis for all relationships.
09.02	Distinguish between non-assertive, assertive, and aggressive communication.
09.03	Demonstrate communication skills that promote positive relationships with children.
09.04	Define and explain appropriate discipline and guidance procedures for children.
09.05	Practice active listening skills.
09.06	Utilize conflict resolution skills.
10.0	Recognize age-appropriate learning activities. The student will be able to:
10.01	Identify age-appropriate learning activities.
10.02	Evaluate games, equipment, activities, books, and play materials for age appropriateness.
11.0	Identify and understand basic observation techniques and how they are used to evaluate children's developmental milestones. The student will be able to:
11.01	Compare and contrast basic observation techniques in relation to the learning environment.
12.0	Utilize technology as it relates to the field of education. The student will be able to:
12.01	Identify technology utilized in the field of education.
12.02	Analyze technology trends impacting education.
12.03	Apply technology for efficient operation of the learning environment.

13.0	Describe and use communication features of information technology. The student will be able to:
13.01	Identify and categorize usage of different forms of storage devices and backup media.
13.02	Recognize essential database concepts such as bookmarking, web browsers, caching and cookies.
13.03	Identify and describe types of file systems and classify common file extensions based on software application programs used in the workplace environment.
13.04	Define important internet communications protocols and their roles in delivering basic Internet services.
13.05	Identify security issues related to Internet clients including ethical issues using social media.
13.06	Identify and use principles of Personal Information Management (PIM), including common applications.
13.07	Efficiently transmit text and attachments using email systems used in the workplace environment.
13.08	Conduct a webcast and related services.
13.09	Represent technical issues to a non-technical audience.
13.10	Identify roles and responsibilities of members of professional and community service organizations, including career and technical student organizations.
13.11	Work cooperatively as a group member to achieve organizational goals.
13.12	Demonstrate leadership roles and organizational responsibilities.
13.13	Identify and utilize the planning process.
<b><u>Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes.</u></b>	
The student will be able to:	
14.0	Describe the influences that societal, economic, and technological changes have on employment trends and future training.
15.0	Develop skills to locate, evaluate, and interpret career information.
16.0	Identify and demonstrate processes for making short and long term goals.
17.0	Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
18.0	Understand the relationship between educational achievement and career choices/postsecondary options.
19.0	Identify a career cluster and related pathways through an interest assessment that match career and education goals.

20.0	Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
21.0	Demonstrate knowledge of technology and its application in career fields/clusters.

## Additional Information

### Laboratory Activities

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### Florida Standards for English Language Development (ELD)

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### Special Notes

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### Career Planning

**Effective July 1, 2019, per Section 1003.4156, Florida Statutes (F.S.), for students to meet middle grades promotion requirements, a Career and Education Planning course must be completed in either sixth, seventh, or eighth grade.** These courses should be taught integrating the eight career and education planning course standards. The MyCareerShines powered by Kuder® career planning system is available free of charge to all Florida middle and high schools to assist students in completing research-based career assessments, exploring career options and developing an online academic and career plan.

### Career and Technical Student Organization (CTSO)

Family, Career and Community Leaders of America (FCCLA) is the intercurricular career and technical student organization(s) providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

## **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Course Title:** Orientation to Nursing  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Health Science

**Secondary – Middle School**

Course Number	8417106
CIP Number	0351260302
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	HOSA: Future Health Professionals

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Health Science career cluster.

The content includes but is not limited to basic information about the skills required, available, career paths, specializations, financial rewards, occupational hazards, and educational requirements. Information concerning the practices for promoting good health is included.

Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Course Structure**

This program is a planned sequence of instruction consisting of 1 course.

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.



To teach the course listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8417106	Orientation to Nursing	REG NURSE 7 G PRAC NURSE @7 %7%G (Must be a Registered Nurse) LPN 7 G	Semester

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Discuss the history of nursing.
- 02.0 Discuss personal qualities essential to nurses.
- 03.0 Demonstrate an awareness of various career pathways for nursing and occupations.
- 04.0 Identify skills performed by various levels of nursing occupations.
- 05.0 Identify life stages and the health care needs of each.
- 06.0 Demonstrate basic communication skills.
- 07.0 Perform basic mathematical calculations and demonstrate problem solving skills used by nurses.
- 08.0 Demonstrate an understanding of the principles of wellness and disease.
- 09.0 Identify the general plan of anatomy and physiology of the human body and perform nursing skills utilized for each system.
- 10.0 Discuss various job settings for nurses.
- 11.0 Demonstrate employability skills related to nursing.
- 12.0 Demonstrate how to take vital signs and analyze the results.
- 13.0 Perform a basic head to toe assessment & document the findings.

Florida Department of Education  
Student Performance Standards

Course Title:        **Orientation to Nursing**  
 Course Number:     **8417106**  
 Course Length:     **Semester**

<b>CTE Standards and Benchmarks</b>	
01.0	Discuss the history of nursing. -- The student will be able to:
01.01	Compare nursing care from ancient times to the present. For example: families, religious orders, wars, modern treatment and equipment.
01.02	Discuss early pioneers in nursing such as Clara Barton and Florence Nightingale.
01.03	Demonstrate knowledge of how advances in science have impacted beliefs and practices from ancient times to the present.
02.0	Discuss personal qualities essential to nurses. -- The student will be able to:
02.01	Describe the personal traits of an ideal nurse.
02.02	List their own personal traits that would assist them in nursing and those that would need to be improved or developed.
02.03	Discuss the importance of legal and ethical behaviors as related to nursing.
03.0	Demonstrate an awareness of various career pathways for nursing and occupations. -- The student will be able to:
03.01	Identify and classify what careers fall under the nursing service category and cluster (e.g. C.N.A.s, PCTs, LPNs, ADNs, diploma R.N.s, B.S.N.s, M.S.N.s, PhDs, and DNPs) and identify various pathways to reach these levels.
03.02	List various institutions where training for nursing careers is available.
03.03	Identify types of education and training levels as it relates to nursing services/occupations.
03.04	List the advantages and disadvantages of one occupation including the following factors: job opportunities, salary ranges, fringe benefits, working conditions, and occupational hazards.
04.0	Identify skills performed by various levels of nursing occupations. -- The student will be able to:
04.01	Identify representative skills of nursing assistants and home health aides.
04.02	Identify representative skills of patient care technicians.
04.03	Identify representative skills of practical nurses.

## CTE Standards and Benchmarks

04.04 Identify representative skills of professional nurses.

04.05 Identify representative skills of nursing specialties.

05.0 Identify life stages and the health care needs of each. -- The student will be able to:

05.01 Describe common health care needs from birth to death and identify how nurses help address those needs.

05.02 Identify how nurses promote optimum health.

05.03 Identify how cultural diversity/transcultural nursing affects health care needs at different life stages.

06.0 Demonstrate basic communication skills. -- The student will be able to:

06.01 Demonstrate interpersonal communication skills such as active listening, verbal, non-verbal and written language.

06.02 Demonstrate the ability to break medical terms into their word parts.

06.03 Discuss common abbreviations and symbols used in nursing.

06.04 Identify technology used in Nursing and the proper communication etiquette required for its' use.

07.0 Perform basic mathematical calculations and demonstrate problem solving skills used by nurses. -- The student will be able to:

07.01 Describe the importance of why accurate calculations and effective problem solving skills are required.

07.02 Calculate mathematical problems and measurements related to nursing.

07.03 Measure artificial medication in various forms, for example syringes or medicine cups.

07.04 Convert common weights, measure, and volumes to metric as applied in the health care setting.

07.05 Accurately tell time using both standard and international/military time formats.

08.0 Demonstrate an understanding of the principles of wellness and disease. – The student will be able to:

08.01 Describe how cultural and individual differences in lifestyles relate to wellness and quality of life and how these differences impact health problems of society.

08.02 Demonstrate an understanding of the risk factors that contribute to illness.

08.03 Identify consequences of substance abuse and high risk factors.

08.04 Describe strategies for prevention of diseases including health screenings and examinations.

## CTE Standards and Benchmarks

08.05	Explain basic concepts of positive self-image, body and mental wellness and the effect stress has on both.
08.06	Explore the need for proper nutrition and water intake to maintain wellness.
09.0	Identify the general plan of anatomy and physiology of the human body and perform nursing skills utilized for each system. -- The student will be able to:
09.01	Describe the anatomical position of the body, defining basic body planes and directional terms.
09.02	Describe the anatomy and physiology of the respiratory system. 09.02.01 Describe illnesses/diseases related to the respiratory system. 09.02.02 Perform a basic assessment of respiratory rate and lung sounds.
09.03	Describe the anatomy and physiology of the integumentary system. 09.03.01 Describe illnesses/diseases related to the integumentary system. 09.03.02 Identify the various wounds related to the skin and their treatment.
09.04	Describe the anatomy and physiology of the skeletal system. 09.04.01 Describe illnesses/diseases of the skeletal system. 09.04.02 Identify types of fractures and splint/sling techniques.
09.05	Describe the anatomy and physiology of the muscle system. 09.05.01 Describe illnesses/diseases of the muscular system. 09.05.02 Perform ROM exercises.
09.06	Describe the anatomy and physiology of the digestive system. 09.06.01 Describe illnesses/diseases related to the digestive system. 09.06.02 Assess bowel sounds.
09.07	Describe the anatomy and physiology of the ear. 09.07.01 Describe illnesses/diseases related to the ear. 09.07.02 Perform the Rhinnes and Weber hearing test with a tuning fork. If available, test hearing with an audiometer.
09.08	Describe the anatomy and physiology of the eye. 09.08.01 Describe illnesses/diseases related to the eye. 09.08.02 Perform a vision exam using a Snellen eye chart
09.09	Describe the anatomy and physiology of the nervous system. 09.09.01 Describe illnesses/diseases related to the nervous system. 09.09.02 Perform a reflex exam using a reflex hammer.
09.10	Describe the anatomy and physiology of the circulatory system, including the heart. 09.10.01 Describe illnesses/diseases related to the circulatory system. 09.10.02 Demonstrate how to take a blood pressure.
09.11	Describe the anatomy and physiology of the excretory system. 09.11.01 Describe illnesses/diseases related to the excretory system. 09.11.02 Measure input & output.
09.12	Describe the anatomy and physiology of the immune system. 09.12.01 Describe the illnesses/disease related to the immune system.

## CTE Standards and Benchmarks

	09.12.02	Perform hand washing,
	09.12.03	Demonstrate the operation of a microscope
	09.12.04	Demonstrate the streaking of an agar plate.
10.0	Discuss various job settings for nurses. -- The student will be able to:	
	10.01	Recognize various settings that employ nurses.
	10.02	Compare salaries and benefits of various levels of nursing and various employment settings.
	10.03	Discuss pros and cons of nursing jobs in various settings.
11.0	Demonstrate employability skills related to nursing. – The student will be able to:	
	11.01	Identify skills needed for employment as a nurse.
	11.02	At a minimum, demonstrate the skills used within nursing from the following list:
	11.02.01	Basic First Aid and CPR.
	11.02.02	Patient menu planning and feeding techniques.
	11.02.03	Measure and record temperature, pulse and respiration (TPR).
	11.02.04	Use of wheelchairs, crutches and/or walkers.
	11.02.05	Perform a weight, height and BMI assessment.
	11.02.06	Graph the development of infant/child on a growth chart.
	11.02.07	Correctly perform making an occupied and unoccupied bed.
12.0	Demonstrate how to take vital signs and analyze the results. – The student will be able to:	
	12.01	Demonstrate how to take an oral, temporal, axillary and tympanic temperature and analyze the results.
	12.02	Demonstrate how to take a radial, carotid and apical pulse and analyze the results.
	12.03	Demonstrate how to take respiration and analyze the results.
	12.04	Demonstrate how to take a blood pressure and analyze the results.
13.0	Perform a basic head to toe assessment & document the findings. – The student will be able to:	
	13.01	Perform a basic head to toe assessment and document the findings using correct terminology.
	13.02	Demonstrate how to take a health history.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills.

For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

The purpose of this course is to acquaint students with career opportunities and job requirements in the field of nursing which will enable students to consider career objectives and interests.

Reinforcement of basic skills in English, mathematics, and science appropriate for the job preparatory programs occurs through vocational classroom instruction and applied laboratory procedures or practice.

Special projects that are related to nursing are provided, including role playing activities of daily living as a handicapped individual, developing an emergency evacuation plan for their own home, menu planning and feeding techniques, applying slings, use of wheelchairs, and creating their own nursing career plan. Team teaching and integration of the curriculum with English, Math and Science is encouraged.

Guest speakers from industry make an important contribution to the effectiveness of this course.

### **Career and Technical Student Organization (CTSO)**

HOSA: Future Health Professionals is the intercurricular career and technical student organization providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.



## **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

**Florida Department of Education  
Curriculum Framework**

**Course Title:** Introduction to Education and Training  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Education & Training

<b>Secondary – Middle School</b>	
Program Number	8440350
CIP Number	148440350M
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b>Course Structure</b> section.
CTSO	FCCLA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Education & Training career cluster. The content includes but is not limited to planning, managing and providing educations and training services, and related learning support services. Reinforcement of academic skills occurs through classroom instruction and applied laboratory procedures. Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8440350	Introduction to Education and Training	FAM CON SC 1 PK PRIMARY H PRESCH ED L PRIMARY ED @B	Semester

Course Number	Course Title	Teacher Certification	Length
		E CHILD ED @0 ANY FIELD WHEN CERTIFICATION REFLECTS BACHELORS OR HIGHER	

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate an understanding of the Administration and Administrative Support career pathway.
- 02.0 Demonstrate an understanding of the Professional Support Services career pathway.
- 03.0 Demonstrate an understanding of the Teaching/Training career pathway.
- 04.0 Apply leadership and communication skills.
- 05.0 Describe how information technology is used in the Education & Training career cluster.
- 06.0 Use information technology tools.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Introduction to Education and Training  
**Course Number:** 8440350  
**Course Length:** Semester

**Course Description:**

Beginning with a broad overview of the Education & Training career cluster, students are introduced to the terminology, careers, history, required skills, and technologies associated with each pathway in the Education & Training career cluster. Additionally, they will be provided with opportunities to acquire and demonstrate beginning leadership skills.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate an understanding of the Administration and Administrative Support career pathway. The student will be able to:
01.01	Define and use proper terminology associated with the Administration and Administrative Support career pathway.
01.02	Describe some of the careers available in the Administration and Administrative Support career pathway.
01.03	Identify common characteristics of the careers in the Administration and Administrative Support career pathway.
01.04	Research the history of the Administration and Administrative Support career pathway and describe how the associated careers have evolved and impacted society.
01.05	Identify skills required to successfully enter any career in the Administration and Administrative Support career pathway.
01.06	Describe technologies associated in careers within the Administration and Administrative Support career pathway.
02.0	Demonstrate an understanding of the Professional Support Services career pathway. The student will be able to:
02.01	Define and use proper terminology associated with the Professional Support Services career pathway.
02.02	Describe some of the careers available in the Professional Support Services career pathway.
02.03	Identify common characteristics of the careers in the Professional Support Services career pathway.
02.04	Research the history of the Professional Support Services career pathway and describe how the careers have evolved and impacted society.
02.05	Identify skills required to successfully enter any career in the Professional Support Services career pathway.
02.06	Describe technologies associated in careers within the Professional Support Services career pathway.

## CTE Standards and Benchmarks

03.0 Demonstrate an understanding of the Teaching/Training career pathway. The student will be able to:

03.01 Define and use proper terminology associated with the Teaching/Training career pathway.

03.02 Describe some of the careers available in the Teaching/Training career pathway.

03.03 Identify common characteristics of the careers in the Teaching/Training career pathway.

03.04 Research the history of the Teaching/Training career pathway and describe how the careers have evolved and impacted society.

03.05 Identify skills required to successfully enter any career in the Teaching/Training career pathway.

03.06 Describe technologies associated in careers within the Teaching/Training career pathway.

04.0 Apply leadership and communication skills. The student will be able to:

04.01 Discuss the establishment and history of the FCCLA organization.

04.02 Identify the characteristics and responsibilities of organizational leaders.

04.03 Demonstrate parliamentary procedure skills during a meeting.

04.04 Participate on a committee which has an assigned task and report to the class.

04.05 Demonstrate effective communication skills through delivery of a speech, a slide presentation, or conducting a demonstration.

04.06 Use a computer to assist in the completion of a project related to the Education and Training career cluster.

05.0 Describe how information technology is used in the Education & Training career cluster. The student will be able to:

05.01 Identify information technology (IT) careers in the Education and Training career cluster, including the responsibilities, tasks and skills they require.

05.02 Relate information technology project management concepts and terms to careers in the Education and Training career cluster.

05.03 Manage information technology components typically used in professions of the Education and Training career cluster.

05.04 Identify security-related ethical and legal IT issues faced by professionals in the Education and Training career cluster.

06.0 Use information technology tools. The student will be able to:

06.01 Identify the functions of web browsers, and use them to access the World Wide Web and other computer resources typically used in the Education & Training career cluster.

06.02 Use e-mail clients to send simple messages and files to other Internet users.

## CTE Standards and Benchmarks

06.03 Demonstrate ways to communicate effectively using Internet technology.

06.04 Use different types of web search engines effectively to locate information relevant to the Education and Training career cluster.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

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### **Special Notes**

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### **Career and Technical Student Organization (CTSO)**

Family, Career & Community Leadership of America, Inc. (FCCLA) is the intercurricular career and technical student organization providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.



In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Program Title:** Career Discovery  
**Program Type:** Orientation/Exploratory  
**Career Cluster:** Human Services

**Secondary – Middle School**

Program Number	8500140
CIP Number	04209950EX
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	FCCLA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Human Services career cluster. The content includes but is not limited to making career choices, basic employability skills that relate to content extracted from any family and consumer sciences exploratory course including the development of leadership and organization skills within the program.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8500140	Career Discovery	FAM CON SC 1	Semester

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate leadership and organizational skills in the workplace.
- 02.0 Apply academic skills as they relate to the workplace.
- 03.0 Identify desirable personal and work ethics.
- 04.0 Develop interpersonal skills for personal and career success.
- 05.0 Demonstrate team player skills.
- 06.0 Demonstrate employability skills.
- 07.0 Create and maintain an employment portfolio.
- 08.0 Demonstrate critical thinking skills and application of the decision making process as it relates to personal and work situations.
- 09.0 Recognize and demonstrate effective communication skills.
- 10.0 Identify appropriate dress for various job experiences.
- 11.0 Recognize the importance of healthy choices as they relate to the well-being of the individual.
- 12.0 Practice successful resource management techniques.
- 13.0 Identify legal and ethical issues as they relate to the work environment.
- 14.0 Identify job benefits.
- 15.0 Practice employee and job safety.
- 16.0 Identify career pathways related to Family and Consumer Sciences.

Florida Department of Education  
Student Performance Standards

**Course Title:** Career Discovery  
**Course Number:** 8500140  
**Course Credit:** Semester

**Course Description:**

The content includes but is not limited to making career choices, basic employability skills that relate to content extracted from any family and consumer sciences exploratory course including the development of leadership and organization skills within the program.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate teamwork and leadership skills in the family, workplace, and community. - The student will be able to:
01.01	Identify purposes, functions, roles and responsibilities of members of professional and youth organizations, including career and technical student organizations.
01.02	Work cooperatively as a group member to achieve organizational goals.
01.03	Demonstrate leadership roles and organizational responsibilities.
01.04	Identify and utilize the FCCLA planning process.
01.05	Discuss the establishment and history of the FCCLA organization.
02.0	Apply academic skills as they relate to the workplace. – The student will be able to:
02.01	Demonstrate reading comprehension of technical/work manuals and written instruction.
02.02	Apply appropriate mathematical skills as they relate to the task at hand.
03.0	Identify desirable personal and work ethics. – The student will be able to:
03.01	Describe positive and negative personal and work ethics.
03.02	Recognize the benefits of positive personal and work ethics.
03.03	Identify character traits that reflect good moral judgment (i.e. honesty, kindness).
03.04	Demonstrate characteristics that produce successful employee/employer relations.
04.0	Develop interpersonal skills for personal and career success. – The student will be able to:

## CTE Standards and Benchmarks

04.01 Determine ways to strengthen self-esteem.

04.02 Identify factors that influence personality formation.

04.03 Identify positive human resources required for successful personal and work relationships.

04.04 Describe qualities and characteristics of a mentoring experience.

04.05 Determine the relevance of integrating academic learning, social skills and lifestyle choices to home, community and career.

05.0 Demonstrate team player skills. – The student will be able to:

05.01 Define teamwork.

05.02 Identify the benefits of working cooperatively.

05.03 Recognize confrontational personality types within a team.

05.04 Practice conflict resolution techniques.

06.0 Demonstrate employability skills. – The student will be able to:

06.01 Identify academic skills required for job success.

06.02 Recognize factors that may influence career choices.

06.03 Identify sources of career information.

06.04 Create and discuss the importance of the components of a current resume.

06.05 List the steps in a job search.

06.06 Demonstrate the ability to complete a job application.

06.07 Demonstrate effective interviewing skills.

07.0 Demonstrate critical thinking skills and application of the decision making process as it relates to personal and work situations. – The student will be able to:

07.01 Define the decision-making process.

07.02 Apply the decision making-process in workplace situations.

07.03 Demonstrate the ability to apply critical thinking skills.

08.0 Recognize and demonstrate effective communication skills. – The student will be able to:

## CTE Standards and Benchmarks

08.01 Define assertive, aggressive, and passive communication.

08.02 Identify the impact of non-verbal behavior on communication.

08.03 Analyze the importance of accepting constructive criticism.

08.04 Demonstrate techniques for dealing with criticism.

08.05 Identify appropriate conversation for the work environment.

08.06 Practice appropriate written and verbal communication necessary for the workplace.

08.07 Practice effective presentation techniques.

09.0 Identify appropriate dress for various job experiences. – The student will be able to:

09.01 Practice good grooming techniques.

09.02 Identify the factors needed to create an economical, coordinated, easy care work wardrobe.

09.03 Select appropriate clothing for a variety of careers and work situations.

10.0 Recognize the importance of healthy choices as they relate to the well-being of the individual. – The student will be able to:

10.01 Define and describe symptoms of stress.

10.02 Identify various coping behaviors.

10.03 List and define types of substance abuse.

10.04 Identify effects of substance abuse on job performance.

10.05 List help that is available, through the government and community organizations, for attaining and maintaining good mental and emotional health.

10.06 Describe the importance of healthy food choices as they relate to job performance.

10.07 Identify techniques for balancing work, community, and personal life.

11.0 Identify legal issues as they relate to the work environment. – The student will be able to:

11.01 Define and describe types of sexual harassment in the workplace.

11.02 Identify appropriate conversation for the work environment.

11.03 List the advantages of a culturally diverse workplace.

## CTE Standards and Benchmarks

11.04 Discuss the Americans with Disabilities Act.

11.05 Discuss the Equal Employment Opportunity Act.

12.0 Identify job benefits. – The student will be able to:

12.01 Define job benefits.

12.02 Identify advantages of benefit packages.

12.03 Discuss income as it relates to career success.

13.0 Practice employee and job safety. – The student will be able to:

13.01 Discuss the roles of the Occupational Safety and Health Administration (OSHA) and the Environmental Protection Agency (EPA).

13.02 Discuss human errors and unsafe work environments and their relationship to employee safety.

13.03 Demonstrate safe operation of workplace equipment.

13.04 Identify first aid procedures for accidents and injuries.

14.0 Identify career pathways related to family and consumer sciences. – The student will be able to:

14.01 Define and describe the different types of businesses related to Family and Consumer Sciences career pathways.

14.02 Explain entrepreneurship.

14.03 Describe the risks and advantages of entrepreneurship.

14.04 Develop an entrepreneur business plan for a Family and Consumer Sciences career pathway.

14.05 Operate an on-site business related to a Family and Consumer Sciences career pathway.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills.

For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

Family, Career and Community Leaders of America (FCCLA) is the intercurricular career and technical student organization(s) providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.



In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Program Title:** Personal Development  
**Program Type:** Orientation/Exploratory  
**Career Cluster:** Human Services

**Secondary – Middle School**

Program Number	8500230
CIP Number	09209921EX
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b>Course Structure</b> section.
CTSO	FCCLA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Human Services career cluster. The content includes but is not limited to development of self-esteem, a personal value system and self-discipline by developing positive coping skills to deal with physical, emotional, intellectual and social changes in self and others.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8500230	Personal Development	FAM CON SC 1 HEALTH 6	Semester

**Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate leadership, study, and organizational skills.
- 02.0 Recognize factors that affect personality development.
- 03.0 Identify and apply skills needed for positive interpersonal relationships.
- 04.0 Identify positive coping skills for dealing with stress and conflict.
- 05.0 Identify relationships that influence personality development.
- 06.0 Assess the importance of good health and wellness.
- 07.0 Develop a plan for managing your resources.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Personal Development  
**Course Number:** 8500230  
**Course Credit:** Semester

**Course Description:**

The content includes but is not limited to development of self-esteem, a personal value system and self-discipline by developing positive coping skills to deal with physical, emotional, intellectual and social changes in self and others.

**CTE Standards and Benchmarks**

01.0	Demonstrate leadership, study, and organizational skills. – The student will be able to:
01.01	Identify purposes and functions of professional and community service organizations.
01.02	Identify roles and responsibilities of members of professional and community service organizations, including career and technical student organizations.
01.03	Work cooperatively as a group member to achieve organizational goals.
01.04	Demonstrate confidence in leadership roles and organizational responsibilities.
01.05	Demonstrate personal responsibility.
01.06	Practice time management techniques.
01.07	Identify methods used for studying.
01.08	List ways to use study time wisely.
01.09	Create a plan to manage your time.
01.10	List ways technology can add balance your life.
01.11	Develop a personal growth project.
01.12	Identify ways to create organization in your personal space.

## CTE Standards and Benchmarks

02.0 Recognize factors that affect personality development. – The student will be able to:

02.01 Review Robert Havighurst’s developmental tasks of pre-adolescence and adolescence.

02.02 Identify Maslow’s basic human needs.

02.03 Define self-esteem and self-concept.

02.04 Explain how heredity and environment affect the development of personality.

02.05 Identify factors that affect self-concept and achievement.

02.06 State how a positive self-concept builds good relationships with friends, peers, parents, and family members.

02.07 Identify characteristics of individuals with high/low self-esteem.

02.08 Inventory personal traits, attitudes, abilities, talents and values that can be used as resources in personal development.

02.09 Analyze personality strengths and weaknesses.

02.10 Identify how values and standards affect character and actions.

02.11 Determine how to make ethical decisions.

03.0 Identify and apply skills needed for positive interpersonal relationships. – The student will be able to:

03.01 Identify social skills that contribute to good relationships with others, including diverse multi-cultural groups.

03.02 Identify appropriate topics of conversation when establishing relationships with acquaintances.

03.03 List forms of verbal and non-verbal communication.

03.04 Practice positive communication skills.

03.05 Demonstrate appropriate manners and etiquette for a variety of social situations.

04.0 Identify positive coping skills for adjusting to stress and conflict. – The student will be able to:

04.01 Identify positive and negative stress.

04.02 Identify changes that affect families.

04.03 Describe ways of coping with personal and family stress and crises.

## CTE Standards and Benchmarks

04.04 Recognize signs of peer pressure and bullying.

04.05 Demonstrate refusal skills.

04.06 Identify causes of conflict.

04.07 List the steps in the conflict resolution process.

04.08 Compare ways of dealing with and preventing conflict with friends and family members.

05.0 Identify relationships that influence personality development. – The student will be able to:

05.01 Identify types of relationships.

05.02 Describe qualities of a friend.

05.03 Define reasons for dating.

05.04 Recognize healthy and unhealthy relationships.

05.05 List the functions of families.

05.06 List types of family structures.

05.07 Describe the family life cycle.

05.08 Identify ways to blend work and family.

05.09 Discuss the benefits and challenges of current technology and the impact on the family.

05.10 Identify factors in caring for children and the elderly.

05.11 Discuss the joys and challenges of being a parent.

06.0 Assess the importance of good health and wellness. – The student will be able to:

06.01 Describe wellness.

06.02 Explain the importance of good nutrition.

06.03 Classify foods according to the Food Guide Pyramid.

06.04 List the essential nutrients and describe their functions and sources.

## CTE Standards and Benchmarks

06.05 List good health practices that contribute to looking your best.

06.06 Identify the health risks associated with the use of alcohol, tobacco, and other drugs.

06.07 List resources and organizations that assist individuals who abuse alcohol, tobacco, and other drugs.

06.08 Develop an exercise and nutrition plan that incorporates the components of wellness.

06.09 Identify careers related to health and wellness.

07.0 Develop a plan for managing your resources. – The student will be able to:

07.01 Define needs and wants.

07.02 Identify major and minor decisions and the factors that affect decisions.

07.03 Identify the steps of the decision-making process.

07.04 Develop a self-improvement plan using the decision-making process to set goals and priorities.

07.05 Apply the decision-making process to personal, social, and family activities.

07.06 Identify factors that affect consumer choices.

07.07 Identify ways to manage your resources for personal needs and wants.

07.08 Develop a spending and savings plan for your money.

07.09 Discuss reasons for working.

07.10 Explain the relationship between income and lifestyle.

07.11 Identify the personal skills needed for employment.

07.12 Discuss careers related to resource management.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

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**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

### **Special Notes**

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Family, Career and Community Leaders of America (FCCLA) is the intercurricular career and technical student organization(s) providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Accommodations**

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In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

**Florida Department of Education  
Curriculum Framework**

**Course Title:** Personal Development and Career Planning  
**Course Type:** Orientation/Exploratory and Career Planning  
**Career Cluster:** Human Services

**Secondary – Middle School**

Program Number	8500430
CIP Number	09209921CE
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	FCCLA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Human Services career cluster. The content includes but is not limited to development of self-esteem, a personal value system and self-discipline by developing positive coping skills to deal with physical, emotional, intellectual and social changes in self and others.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8500430	Personal Development and Career Planning	FAM CON SC 1 HEALTH 6	Semester

### **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate leadership, study, and organizational skills.
- 02.0 Recognize factors that affect personality development.
- 03.0 Identify and apply skills needed for positive interpersonal relationships.
- 04.0 Identify positive coping skills for dealing with stress and conflict.
- 05.0 Identify relationships that influence personality development.
- 06.0 Assess the importance of good health and wellness.
- 07.0 Develop a plan for managing your resources.

### **Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes.**

- 08.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.
- 09.0 Develop skills to locate, evaluate, and interpret career information.
- 10.0 Identify and demonstrate processes for making short and long term goals.
- 11.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
- 12.0 Understand the relationship between educational achievement and career choices/postsecondary options.
- 13.0 Identify a career cluster and related pathways that match career and education goals.
- 14.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
- 15.0 Demonstrate knowledge of technology and its application in career fields/clusters.

Florida Department of Education  
Student Performance Standards

**Course Title:** Personal Development and Career Planning  
**Course Number:** 8500430  
**Course Credit:** Semester

**Course Description:**

The content includes but is not limited to development of self-esteem, a personal value system and self-discipline by developing positive coping skills to deal with physical, emotional, intellectual and social changes in self and others.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate leadership, study, and organizational skills. – The student will be able to:
01.01	Identify purposes and functions of professional and community service organizations.
01.02	Identify roles and responsibilities of members of professional and community service organizations, including career and technical student organizations.
01.03	Work cooperatively as a group member to achieve organizational goals.
01.04	Demonstrate confidence in leadership roles and organizational responsibilities.
01.05	Demonstrate personal responsibility.
01.06	Practice time management techniques.
01.07	Identify methods used for studying.
01.08	List ways to use study time wisely.
01.09	Create a plan to manage your time.
01.10	List ways technology can add balance your life.
01.11	Develop a personal growth project.
01.12	Identify ways to create organization in your personal space.
02.0	Recognize factors that affect personality development. – The student will be able to:
02.01	Review Robert Havighurst’s developmental tasks of pre-adolescence and adolescence.

## CTE Standards and Benchmarks

02.02 Identify Maslow's basic human needs.

02.03 Define self-esteem and self-concept.

02.04 Explain how heredity and environment affect the development of personality.

02.05 Identify factors that affect self-concept and achievement.

02.06 State how a positive self-concept builds good relationships with friends, peers, parents, and family members.

02.07 Identify characteristics of individuals with high/low self-esteem.

02.08 Inventory personal traits, attitudes, abilities, talents and values that can be used as resources in personal development.

02.09 Analyze personality strengths and weaknesses.

02.10 Identify how values and standards affect character and actions.

02.11 Determine how to make ethical decisions.

03.0 Identify and apply skills needed for positive interpersonal relationships. – The student will be able to:

03.01 Identify social skills that contribute to good relationships with others, including diverse multi-cultural groups.

03.02 Identify appropriate topics of conversation when establishing relationships with acquaintances.

03.03 List forms of verbal and non-verbal communication.

03.04 Practice positive communication skills.

03.05 Demonstrate appropriate manners and etiquette for a variety of social situations.

04.0 Identify positive coping skills for adjusting to stress and conflict. – The student will be able to:

04.01 Identify positive and negative stress.

04.02 Identify changes that affect families.

04.03 Describe ways of coping with personal and family stress and crises.

04.04 Recognize signs of peer pressure and bullying.

04.05 Demonstrate refusal skills.

04.06 Identify causes of conflict.

## CTE Standards and Benchmarks

04.07 List the steps in the conflict resolution process.

04.08 Compare ways of dealing with and preventing conflict with friends and family members.

05.0 Identify relationships that influence personality development. – The student will be able to:

05.01 Identify types of relationships.

05.02 Describe qualities of a friend

05.03 Recognize healthy and unhealthy relationships.

05.04 List the functions of families.

05.05 List types of family structures.

05.06 Describe the family life cycle.

05.07 Identify ways to blend work and family.

05.08 Discuss the benefits and challenges of current technology and the impact on the family.

05.09 Identify factors in caring for children and the elderly.

05.10 Discuss the joys and challenges of being a parent.

05.11 Discuss the joys and challenges of being a parent

06.0 Assess the importance of good health and wellness. – The student will be able to:

06.01 Describe wellness.

06.02 Explain the importance of good nutrition.

06.03 Classify foods according to the Food Guide Pyramid.

06.04 List the essential nutrients and describe their functions and sources.

06.05 List good health practices that contribute to looking your best.

06.06 Identify the health risks associated with the use of alcohol, tobacco, and other drugs.

06.07 List resources and organizations that assist individuals who abuse alcohol, tobacco, and other drugs.

06.08 Develop an exercise and nutrition plan that incorporates the components of wellness.

## CTE Standards and Benchmarks

06.09 Identify careers related to health and wellness.

07.0 Develop a plan for managing your resources. – The student will be able to:

07.01 Define needs and wants.

07.02 Identify major and minor decisions and the factors that affect decisions.

07.03 Identify the steps of the decision-making process.

07.04 Develop a self-improvement plan using the decision-making process to set goals and priorities.

07.05 Apply the decision-making process to personal, social, and family activities.

07.06 Identify factors that affect consumer choices.

07.07 Identify ways to manage your resources for personal needs and wants.

07.08 Develop a spending and savings plan for your money.

07.09 Discuss reasons for working.

07.10 Explain the relationship between income and lifestyle.

07.11 Identify the personal skills needed for employment.

07.12 Discuss careers related to resource management.

**Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes.**

The student will be able to:

08.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.

09.0 Develop skills to locate, evaluate, and interpret career information.

10.0 Identify and demonstrate processes for making short and long term goals.

11.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.

12.0 Understand the relationship between educational achievement and career choices/postsecondary options.

13.0 Identify a career cluster and related pathways that match career and education goals.

## CTE Standards and Benchmarks

- |      |  |
|------|--|
| 14.0 | Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals. |
| 15.0 | Demonstrate knowledge of technology and its application in career fields/clusters.   |



## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career Planning**

**Effective July 1, 2019, per Section 1003.4156, Florida Statutes (F.S.), for students to meet middle grades promotion requirements, a Career and Education Planning course must be completed in either sixth, seventh, or eighth grade.** These courses should be taught integrating the eight career and education planning course standards. The MyCareerShines powered by Kuder® career planning system is available free of charge to all Florida middle and high schools to assist students in completing research-based career assessments, exploring career options and developing an online academic and career plan.

### **Career and Technical Student Organization (CTSO)**

FCCLA is the inter-curricular career and technical student organization(s) providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

Course Title: Introduction to Finance  
Course Type: Orientation/Exploratory  
Career Cluster: Finance

**Secondary – Middle School**

Course Number	8540350
CIP Number	148540350M
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	FBLA BPA DECA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Finance career cluster. The content includes but is not limited to instruction in elements of the financial industry: planning; management; finance; economics; technical and production skills; underlying principles of technology; labor issues; community issues and health, safety, and environmental issues; risk management liability; and health, life, and disability insurance. The path begins with an overview of globalization, including world factors pushing organizations to expand into other markets in order to remain viable. Students explore cultural and political differences that affect organizational operations and decision making. Reinforcement of academic skills occurs through classroom instruction and applied laboratory procedures.

Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

## **Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8540350	Introduction to Finance	BUS ED 1 @2 MKTG 1 @2 TC COOP ED @7 VOE @7	Semester

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

## **Standards**

After successfully completing this course, the student will be able to perform the following:

- 01.0 Demonstrate an understanding of the Securities and Investments career pathway.
- 02.0 Demonstrate an understanding of the Business Finance career pathway.
- 03.0 Demonstrate an understanding of the Banking Services career pathway.
- 04.0 Demonstrate an understanding of the Insurance career pathway.
- 05.0 Apply leadership and communication skills.
- 06.0 Describe how information technology is used in the Finance career cluster.
- 07.0 Use information technology tools.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Introduction to Finance  
**Course Number:** 8540350  
**Course Length:** Semester

**Course Description:**

Beginning with a broad overview of the Finance career cluster, students are introduced to the terminology, careers, history, required skills, and technologies associated with each pathway in the Finance career cluster. Additionally, they will be provided with opportunities to acquire and demonstrate beginning leadership skills.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate an understanding of the Securities and Investments career pathway – the student will be able to:
01.01	Define and use proper terminology associated with the Securities and Investments career pathway.
01.02	Describe some of the careers available in the Securities and Investments career pathway.
01.03	Identify common characteristics of the careers in the Securities and Investments career pathway.
01.04	Research the history of the Securities and Investments career pathway and describe how the associated careers have evolved and impacted society.
01.05	Identify skills required to successfully enter any career in the Securities and Investments career pathway.
01.06	Describe technologies associated in careers within the Securities and Investments career pathway.
02.0	Demonstrate an understanding of the Business Finance career pathway – the student will be able to:
02.01	Define and use proper terminology associated with the Business Finance career pathway.
02.02	Describe some of the careers available in the Business Finance career pathway.
02.03	Identify common characteristics of the careers in the Business Finance career pathway.
02.04	Research the history of the Business Finance career pathway and describe how the careers have evolved and impacted society.
02.05	Identify skills required to successfully enter any career in the Business Finance career pathway.
02.06	Describe technologies associated in careers within the Business Finance career pathway.

## CTE Standards and Benchmarks

03.0 Demonstrate an understanding of the Banking Services career pathway – the student will be able to:

03.01 Define and use proper terminology associated with the Banking Services career pathway.

03.02 Describe some of the careers available in the Banking Services career pathway.

03.03 Identify common characteristics of the careers in the Banking Services career pathway.

03.04 Research the history of the Banking Services career pathway and describe how the careers have evolved and impacted society.

03.05 Identify skills required to successfully enter any career in the Banking Services career pathway.

03.06 Describe technologies associated in careers within the Banking Services career pathway.

04.0 Demonstrate an understanding of the Insurance career pathway – the student will be able to:

04.01 Define and use proper terminology associated with the Insurance career pathway.

04.02 Describe some of the careers available in the Insurance career pathway.

04.03 Identify common characteristics of the careers in the Insurance career pathway.

04.04 Research the history of the Insurance career pathway and describe how the careers have evolved and impacted society.

04.05 Identify skills required to successfully enter any career in the Insurance career pathway.

04.06 Describe technologies associated in careers within the Insurance career pathway.

05.0 Apply leadership and communication skills – the student will be able to:

05.01 Discuss the establishment and history of the FBLA and BPA organization.

05.02 Identify the characteristics and responsibilities of organizational leaders.

05.03 Demonstrate parliamentary procedure skills during a meeting.

05.04 Participate on a committee which has an assigned task and report to the class.

05.05 Demonstrate effective communication skills through delivery of a speech, a slide presentation, or conducting a demonstration.

05.06 Use a computer to assist in the completion of a project related to the Finance career cluster.

06.0 Describe how information technology is used in the Finance career cluster – the student will be able to:

## CTE Standards and Benchmarks

06.01 Identify information technology (IT) careers in the Finance career cluster, including the responsibilities, tasks and skills they require.

06.02 Relate information technology project management concepts and terms to careers in the Finance career cluster.

06.03 Manage information technology components typically used in professions of the Finance career cluster.

06.04 Identify security-related ethical and legal IT issues faced by professionals in the Finance career cluster.

07.0 Use information technology tools – the student will be able to:

07.01 Identify the functions of web browsers, and use them to access the World Wide Web and other computer resources typically used in the Finance career cluster.

07.02 Use e-mail clients to send simple messages and files to other Internet users.

07.03 Demonstrate ways to communicate effectively using Internet technology.

07.04 Use different types of web search engines effectively to locate information relevant to the Finance career cluster.



## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

Future Business Leaders of America (FBLA), Business Professional of America (BPA) and DECA are the intercurricular career and technical student organizations providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

**Florida Department of Education  
Curriculum Framework**

**Course Title:** Introduction to Finance and Career Planning  
**Course Type:** Orientation/Exploratory and Career Planning  
**Career Cluster:** Finance

**Secondary – Middle School**

Course Number	8540360
CIP Number	148540360M
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	FBLA BPA DECA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Finance career cluster. The content includes but is not limited to instruction in elements of the financial industry: planning; management; finance; economics; technical and production skills; underlying principles of technology; labor issues; community issues and health, safety, and environmental issues; risk management liability; and health, life, and disability insurance. The path begins with an overview of globalization, including world factors pushing organizations to expand into other markets in order to remain viable. Students explore cultural and political differences that affect organizational operations and decision making. Reinforcement of academic skills occurs through classroom instruction and applied laboratory procedures.

Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8540360	Introduction to Finance and Career Planning	BUS ED 1 @2 MKTG 1 @2 TC COOP ED @7 VOE @7	Semester

## **Standards**

After successfully completing this course, the student will be able to perform the following:

- 01.0 Demonstrate an understanding of the Securities and Investments career pathway.
- 02.0 Demonstrate an understanding of the Business Finance career pathway.
- 03.0 Demonstrate an understanding of the Banking Services career pathway.
- 04.0 Demonstrate an understanding of the Insurance career pathway.
- 05.0 Apply leadership and communication skills.
- 06.0 Describe how information technology is used in the Finance career cluster.
- 07.0 Use information technology tools.

### **Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes.**

- 08.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.
- 09.0 Develop skills to locate, evaluate, and interpret career information.
- 10.0 Identify and demonstrate processes for making short and long term goals.
- 11.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
- 12.0 Understand the relationship between educational achievement and career choices/postsecondary options.
- 13.0 Identify a career cluster and related pathways through an interest assessment that match career and education goals.
- 14.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
- 15.0 Demonstrate knowledge of technology and its application in career fields/clusters.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Introduction to Finance and Career Planning  
**Course Number:** 8540360  
**Course Length:** Semester

**Course Description:**

Beginning with a broad overview of the Finance career cluster, students are introduced to the terminology, careers, history, required skills, and technologies associated with each pathway in the Finance career cluster. Additionally, they will be provided with opportunities to acquire and demonstrate beginning leadership skills.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate an understanding of the Securities and Investments career pathway – the student will be able to:
01.01	Define and use proper terminology associated with the Securities and Investments career pathway.
01.02	Describe some of the careers available in the Securities and Investments career pathway.
01.03	Identify common characteristics of the careers in the Securities and Investments career pathway.
01.04	Research the history of the Securities and Investments career pathway and describe how the associated careers have evolved and impacted society.
01.05	Identify skills required to successfully enter any career in the Securities and Investments career pathway.
01.06	Describe technologies associated in careers within the Securities and Investments career pathway.
02.0	Demonstrate an understanding of the Business Finance career pathway – the student will be able to:
02.01	Define and use proper terminology associated with the Business Finance career pathway.
02.02	Describe some of the careers available in the Business Finance career pathway.
02.03	Identify common characteristics of the careers in the Business Finance career pathway.
02.04	Research the history of the Business Finance career pathway and describe how the careers have evolved and impacted society.
02.05	Identify skills required to successfully enter any career in the Business Finance career pathway.
02.06	Describe technologies associated in careers within the Business Finance career pathway.

## CTE Standards and Benchmarks

03.0 Demonstrate an understanding of the Banking Services career pathway – the student will be able to:

03.01 Define and use proper terminology associated with the Banking Services career pathway.

03.02 Describe some of the careers available in the Banking Services career pathway.

03.03 Identify common characteristics of the careers in the Banking Services career pathway.

03.04 Research the history of the Banking Services career pathway and describe how the careers have evolved and impacted society.

03.05 Identify skills required to successfully enter any career in the Banking Services career pathway.

03.06 Describe technologies associated in careers within the Banking Services career pathway.

04.0 Demonstrate an understanding of the Insurance career pathway – the student will be able to:

04.01 Define and use proper terminology associated with the Insurance career pathway.

04.02 Describe some of the careers available in the Insurance career pathway.

04.03 Identify common characteristics of the careers in the Insurance career pathway.

04.04 Research the history of the Insurance career pathway and describe how the careers have evolved and impacted society.

04.05 Identify skills required to successfully enter any career in the Insurance career pathway.

04.06 Describe technologies associated in careers within the Insurance career pathway.

05.0 Apply leadership and communication skills – the student will be able to:

05.01 Discuss the establishment and history of the FBLA and BPA organization.

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05.06 Use a computer to assist in the completion of a project related to the Finance career cluster.

06.0 Describe how information technology is used in the Finance career cluster – the student will be able to:

## CTE Standards and Benchmarks

06.01 Identify information technology (IT) careers in the Finance career cluster, including the responsibilities, tasks and skills they require.

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07.01 Identify the functions of web browsers, and use them to access the World Wide Web and other computer resources typically used in the Finance career cluster.

07.02 Use e-mail clients to send simple messages and files to other Internet users.

07.03 Demonstrate ways to communicate effectively using Internet technology.

07.04 Use different types of web search engines effectively to locate information relevant to the Finance career cluster.

### **Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes.**

The student will be able to:

08.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.

09.0 Develop skills to locate, evaluate, and interpret career information.

10.0 Identify and demonstrate processes for making short and long term goals.

11.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.

12.0 Understand the relationship between educational achievement and career choices/postsecondary options.

13.0 Identify a career cluster and related pathways through an interest assessment that match career and education goals.

14.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.

15.0 Demonstrate knowledge of technology and its application in career fields/clusters.



## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

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### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career Planning**

**Effective July 1, 2019, per Section 1003.4156, Florida Statutes (F.S.), for students to meet middle grades promotion requirements, a Career and Education Planning course must be completed in either sixth, seventh, or eighth grade.** These courses should be taught integrating the eight career and education planning course standards. The MyCareerShines powered by Kuder® career planning system is available free of charge to all Florida middle and high schools to assist students in completing research-based career assessments, exploring career options and developing an online academic and career plan.

### **Career and Technical Student Organization (CTSO)**

Future Business Leaders of America (FBLA), Business Professional of America (BPA) and DECA are the intercurricular career and technical student organizations providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

## **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Course Title:** Fundamentals of Finance  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Finance

**Secondary – Middle School**

Course Number	8540400
CIP Number	148540400M
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	FBLA BPA DECA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Finance career cluster. Fundamentals of Finance provides students with opportunities to become familiar with related careers and develop fundamental knowledge and skills in general economic systems, financial securities, banking concepts, credit, and consumer lending in the United States. Instruction in information systems and related electronic skills and software applications is also included. Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

## **Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8540400	Fundamentals of Finance	BUS ED 1 @2 MKTG 1 @2 TC COOP ED @7 VOE @7	Semester

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate knowledge, skill, and application of information systems to accomplish job objectives and enhance workplace performance.
- 02.0 Demonstrate ability in using microcomputer and electronic skills to perform job functions.
- 03.0 Develop and utilize business-related soft skills.
- 04.0 Develop sales and marketing fundamentals.
- 05.0 Demonstrate effective customer service skills.
- 06.0 Develop awareness of management functions and organizational structures as they relate to today's workplace and employer/employee roles. Demonstrate initiative, courtesy, loyalty, honesty, cooperation and punctuality as a team member.
- 07.0 Assess personal strengths and weaknesses relating to job objectives, career exploration, personal development, and life goals
- 08.0 Compare the differences between the various economic systems and explore American capitalism.
- 09.0 Demonstrate knowledge through citing examples of capital markets and the role securities have within these markets.
- 10.0 Develop skills in interpreting the financial section of the daily newspaper
- 11.0 Identify different types of business organization.
- 12.0 State the banking concept as used in America.
- 13.0 Describe the role of consumer credit in today's society.
- 14.0 Identify the principles of saving and borrowing.
- 15.0 Summarize global banking functions.
- 16.0 Define global trade.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Fundamentals of Finance  
**Course Number:** 8540400  
**Course Length:** Semester

**Course Description:**

This course provides students with opportunities to acquire foundational knowledge and skills suitable for pursuing higher level programs of study related to the information technology industry.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate knowledge, skill, and application of information systems to accomplish job objectives and enhance workplace performance – the student will be able to:
01.01	Develop keyboarding skills to enter and manipulate text and data.
01.02	Describe and use current and emerging computer technology and software to perform personal and business related tasks.
01.03	Identify and describe communications and networking systems used in workplace environments.
01.04	Use reference materials such as on-line help, vendor bulletin boards, tutorials, and manuals available for application software.
01.05	Describe ethical issues and problems associated with computers and information systems.
01.06	Demonstrate basic file management skills.
01.07	Troubleshoot problems with computer software, hardware, peripherals, and other office equipment.
01.08	Select and use standard written business and financial communication formats.
02.0	Demonstrate ability in using microcomputer and electronic skills to perform job functions – the student will be able to:
02.01	Apply the following tools to increase work efficiency: word processing, database, spreadsheet programs, presentation programs, email systems, and the Internet.
02.02	Utilize computer technology to access, analyze and interpret business information.
02.03	Cite Internet-based resources correctly using proper format.
02.04	Research industry trends on the Internet.

## CTE Standards and Benchmarks

03.0 Develop and utilize business-related soft skills – the student will be able to:

03.01 Understand the importance of a positive attitude in obtaining and maintaining a job.

03.02 Identify good grooming and dress habits for the workplace.

03.03 Develop problem-solving skills.

03.04 Identify the benefits of teamwork.

03.05 Identify the importance of impromptu speaking ability in the workplace.

03.06 Identify the importance of prepared speaking ability in the workplace.

04.0 Develop sales and marketing fundamentals – the student will be able to:

04.01 Demonstrate knowledge of available financial services and products.

04.02 Recognize consumer motivation, including demographic, geographic and socioeconomic data in buying behaviors.

04.03 Explain the importance of and demonstrate the procedures of cross selling.

04.04 Identify the opportunities for cross selling.

04.05 Follow effective procedures for closing a sale.

04.06 Demonstrate the ability to sell a variety of financial services and products.

05.0 Demonstrate effective customer service skills – the student will be able to:

05.01 Practice appropriate communication skills, telephone etiquette, courtesy, and manners when dealing with customers in person, or over the phone.

05.02 Identify and evaluate customer needs.

05.03 Practice responding to client inquiries in a timely matter.

05.04 Practice available techniques to effectively serve customers.

05.05 Practice assisting clients, including difficult customers, with problem resolution.

06.0 Develop awareness of management functions and organizational structures as they relate to today's workplace and employer/employee roles. Demonstrate initiative, courtesy, loyalty, honesty, cooperation and punctuality as a team member – the student will be able to:

06.01 Explore and evaluate organizational structures and cultures for managing project teams.

## CTE Standards and Benchmarks

06.02	Explore and identify current trends in business and the employee's role in maintaining productive business environments in today's global workplace.
06.03	Collaborate with individuals and teams to practice tasks and solve business-related problems, demonstrating initiative, courtesy, loyalty, honesty, cooperation, and punctuality as a team member.
07.0	Assess personal strengths and weaknesses relating to job objectives, career exploration, personal development, and life goals – the student will be able to:
07.01	Analyze job and career requirements and relate career interests to opportunities in financial occupations in the global economy.
08.0	Compare the differences between the various economic systems and explore American capitalism – the student will be able to:
08.01	Describe the terms "market" and "market system." Compare and contrast major features of a variety of economic systems.
08.02	Describe the characteristics of America's market economy and the impact of supply and demand.
08.03	Explain the role of the profit motive in investment decisions.
09.0	Demonstrate knowledge through citing examples of capital markets and the role securities have within these markets – the student will be able to:
09.01	Identify reasons for corporate efforts to raise capital.
09.02	Explain methods available to corporations for raising capital.
10.0	Develop skill in interpreting the financial section of the daily newspaper – the student will be able to:
10.01	Identify important financial data components found in the financial section of a daily newspaper.
11.0	Identify different types of business organization – the student will be able to:
11.01	Compare the features of proprietorship, partnership, and corporation.
11.02	List the advantages and disadvantages of forming a corporation.
11.03	Discuss reasons for corporate acquisitions and mergers.
12.0	State the banking concept as used in America – the student will be able to:
12.01	Identify the basic functions of banks.
12.02	Describe the services offered by a full service bank.
12.03	Explain the importance of selling financial services by all financial institutions.
13.0	Describe the role of consumer credit in today's society – the student will be able to:



## CTE Standards and Benchmarks

13.01 Define consumer credit.

13.02 Identify major providers of consumer credit.

13.03 State the reasons consumer credit exists.

14.0 Identify the principles of saving and borrowing – the student will be able to:

14.01 Describe the importance of credit to consumers in the American marketplace.

14.02 List the criteria for judging an individual's credit worthiness.

14.03 Describe three different types of consumer credit discrimination.

14.04 Describe a strategy for increasing an individual's savings.

15.0 Summarize global banking functions – the student will be able to:

15.01 Describe the promotion of global trade.

15.02 Analyze the global credit crisis.

15.03 Identify global exchange services.

16.0 Define global trade – the student will be able to:

16.01 Describe what takes place during the rise or fall of the exchange rate of the U.S. dollar.

16.02 Outline the advantages and disadvantages of a protectionist policy.

16.03 Identify possible solutions to the problem of meeting global competition.

16.04 Distinguish between imports and exports.

16.05 Discuss the U.S. balance of trade.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

Future Business Leaders of America (FBLA), Business Professionals of America (BPA) and DECA are the intercurricular career and technical student organizations providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Program Title:** Integrated Technology Studies  
**Program Type:** Orientation/Exploratory  
**Career Cluster:** Engineering & Technology Education

**Secondary – Middle School**

Program Number	8600000
CIP Number	08210122EX
Grade Level	6 – 8
Standard Length	Semester
Teacher Certification	Refer to the <b>Program Structure</b> section
CTSO	FL-TSA

**Purpose**

The purpose of this program is to provide students with a foundation of knowledge and technically oriented experiences in the study of the applications of technology and its effect upon our lives and the choosing of an occupation. The content and activities will also include the study of safety, and leadership skills. This program focuses on transferable skills and stresses understanding and demonstration of the technological tools, machines, instruments, materials, processes and systems in business and industry.

The emphasis of this program is on developing awareness of future needs, developing technological competence, confidence and awareness through interaction with technologies, developing awareness of other career programs, interacting with business, industry and community organizations, applying basic skills in learning activities, and developing self-awareness of individual abilities, needs and interests. The courses are intended to help students develop their problem-solving skills and creativity while learning about technology and careers in the Engineering & Technology Education career cluster. Students will learn to gather data through research and testing, as well as to document their results and processes.

The content includes introductory studies in areas of technology which introduce students to the development of abilities to calculate, make important observation's, analyze and solve problems using manipulative skills while working cooperatively with others in team activities.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

## Program Structure

This program contains a series of instructional courses listed below.

The lengths of these courses are one semester. They may be offered for two semesters when appropriate. When offered for one semester, it is recommended that the course be at the exploratory level and more in-depth when offered for two semesters.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8600010	Introduction to Technology	ENG 7G	Semester
8600020	Exploring Technology	ENG TEC 7G PLTW PTE 7G TEC ED 1 @2 ENG&TEC ED1@2 TRANSPORT 7G	Semester
8600030	Exploration of Communications Technology	COMM ART @7 7G ENG 7G GRAPH ARTS @4 PRINTING @7 7G TEC ED 1 @2 ENG&TEC ED1@2	Semester
8600040	Exploration of Production Technology	AUTO PROD 7G BLDG CONST @7 7G BLDG MAINT @7 7G CARPENTRY @7 7G ENG 7G ENG TEC 7G METALWORK 7G PLTW PTE 7G TEC CONSTR @7 7G TEC ED 1 @2 ENG&TEC ED1@2	Semester
8600050	Exploration of Aerospace Technology	AEROSPACE 7G ENG 7G ENG TEC 7G PLTW PTE 7G TEC ED 1 @2 ENG&TEC ED1@2 TRANSPORT 7G	Semester

Course Number	Course Title	Teacher Certification	Length
8600240	Exploration of Transportation Technology	AIR MECH @7 7G AUTO IND @7 %7 %G AUTO MECH @7 7G DIESEL MECH @7 7G ENG 7G GASENG RPR @7 7G TEC ED 1 @2 ENG&TEC ED1@2 TEC MECH 7G TRANSPORT 7G	Semester
8600250	Exploration of Power and Energy Technology	AUTO IND @7 %7 %G AUTO MECH @7 7G DIESEL MECH @7 7G ENG 7G GASENG RPR @7 7G TEC ED 1 @2 ENG&TEC ED1@2 TEC MECH 7G TRANSPORT 7G	Semester
8600060	Exploration of Engineering Technology	ENG 7G ENG TEC 7G PLTW PTE 7G TEC ED 1 @2 ENG&TEC ED1@2	Semester
8600070	Exploration of Robotics Technology	ENG 7G ENG TEC 7G ROBOTICS 7G TEC ED 1 @2 ENG&TEC ED1@2	Semester
8600090	Exploration of Technical Design Technology	DRAFTING @7 7G ENG 7G ENG TEC 7G GRAPH ARTS @4 PLTW PTE 7G TEC ED 1 @2 ENG&TEC ED1@2	Semester
8600091	Exploration of Electronics Technology	ELECTRICAL @7 7G ELECTRONIC @7 7G ENG 7G ENG TEC 7G PLTW PTE 7G	Semester

Course Number	Course Title	Teacher Certification	Length
		TEC ED 1 @2 ENG&TEC ED1@2 TEC ELEC @7 7G	
8600092	Exploration of Maritime Technology	ENG 7G ENG TEC 7G SEAMANSHIP 7G TEC ED 1 @2 ENG&TEC ED1@2	Semester
8600093	Exploration of Logistics and Supply Chain Technology	BUS ED 1 ENG 7G ENG TEC 7G LOG TECH 7G TEC ED 1 @2 ENG&TEC ED1@2	Semester
8600094	Exploration of Green Construction and Architecture Technology	BLDG CONST @7 7G BLDG MAINT @7 7G CARPENTRY @7 7G DRAFTING @7 7G ENG 7G ENG TEC 7G PLTW PTE 7G TEC CONSTR @7 7G TEC DRAFT 7G TEC ED 1 @2 ENG&TEC ED1@2	Semester

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate an understanding of the characteristics and scope of technology.
- 02.0 Demonstrate an understanding of the core concepts of technology.
- 03.0 Demonstrate an understanding of the relationships among technologies and the connection between technology and other fields of study.
- 04.0 Demonstrate an understanding of the cultural, social, economic, and political effects of technology.
- 05.0 Demonstrate an understanding of the effects of technology on the environment.
- 06.0 Demonstrate an understanding of the role of society in the development and use of technology.
- 07.0 Demonstrate an understanding of the influence of technology on history.
- 08.0 Demonstrate an understanding of the attributes of design.
- 09.0 Demonstrate an understanding of engineering design.
- 10.0 Demonstrate an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.
- 11.0 Demonstrate the abilities to apply the design process.
- 12.0 Demonstrate the abilities to use and maintain technological products and systems.
- 13.0 Demonstrate the abilities to assess the impact of products and systems.
- 14.0 Demonstrate an understanding of and be able to select and use medical technologies.
- 15.0 Demonstrate an understanding of and be able to select and use agricultural and related biotechnologies.
- 16.0 Demonstrate an understanding of and be able to select and use energy and power technologies.
- 17.0 Demonstrate an understanding of and be able to select and use information and communications technologies.
- 18.0 Demonstrate an understanding of and be able to select and use transportation technologies.
- 19.0 Demonstrate an understanding of and be able to select and use manufacturing technologies.
- 20.0 Demonstrate an understanding of and be able to select and use construction technologies.
- 21.0 Demonstrate proper and safe procedures while working with technological tools, apparatus, equipment, systems, and materials.
- 22.0 Exhibit positive human relations and leadership skills.
- 23.0 Discuss individual interests, aptitudes, and opportunities as they relate to a career.

### **Exploration of Communications Technology**

- 24.0 Demonstrate an application of basic digital publishing techniques.
- 25.0 Identify and describe the major types of printing techniques used in print production.
- 26.0 Identify and demonstrate the role of electronic communication.
- 27.0 Identify and demonstrate the role of optical technology.

### **Exploration of Production Technology**

- 28.0 Identify evolving technologies of Production Systems.
- 29.0 Perform special skills unique to Manufacturing Technology.
- 30.0 Express knowledge of factors that impact Manufacturing Technologies and practices.

### **Exploration of Aerospace Technology**

- 31.0 Discuss educational and training requirements as they relate to various aerospace careers.



- 32.0 Demonstrate an understanding of and be able to select and use aerospace technologies.
- 33.0 Demonstrate knowledge of the basic principles of aerostatics and aerodynamics.
- 34.0 Identify and demonstrate knowledge of both liquid and solid propellant rocket propulsion systems.
- 35.0 Define and describe the stages and forms of interference in basic satellite communication systems.
- 36.0 Become familiar with the basic information provided by a sectional chart.
- 37.0 Describe and define different categories of aviation.

#### **Exploration of Transportation Technology**

- 38.0 Perform special skills unique to transportation technologies.
- 39.0 Express knowledge of the industries that deal with transportation technology.

#### **Exploration of Power and Energy Technology**

- 40.0 Perform special skills unique to power and energy technologies.
- 41.0 Express knowledge of the industries that deal with power and energy technology.

#### **Exploration of Engineering Technology**

- 42.0 Demonstrate skill in technical sketching and drawing as it relates to engineering design.
- 43.0 Demonstrate foundational knowledge and skills associated with the design of engineering systems (e.g. mechanical, fluid, electrical systems).
- 44.0 Demonstrate understanding and use of measurement tools and systems.
- 45.0 Demonstrate an understanding of the engineering process.
- 46.0 Demonstrate foundational knowledge and skills associated with common computer peripherals and computer functions.
- 47.0 Demonstrate an understanding of Internet safety and ethics.
- 48.0 Develop fundamental business productivity software skills.
- 49.0 Successfully work as a member of a team.

#### **Exploration of Robotics Technology**

- 50.0 Demonstrate an understanding of robotics, its history, applications, and evolution.
- 51.0 Demonstrate an understanding of basic programming concepts.
- 52.0 Identify the basic subsystems on a robotic system.
- 53.0 Describe the role of sensors in the field of robotics.
- 54.0 Build, program, and configure a robot to perform predefined tasks.
- 55.0 Solve problems using critical thinking skills, creativity and innovation.

#### **Exploration of Technical Design Technology**

- 56.0 Demonstrate technical skills and applications common to all types of drafting.
- 57.0 Demonstrate technical knowledge and skills for making basic orthographic drawings.
- 58.0 Demonstrate technical knowledge and skills for making pictorial drawings.
- 59.0 Demonstrate technical knowledge and skills for making a three-dimensional study model.

#### **Exploration of Electronics Technology**

- 60.0 Demonstrate an understanding of the nature of electricity.

- 61.0 Explore the basics of electric circuits.
- 62.0 Investigate digital signals and basic digital components.
- 63.0 Demonstrate and apply proper use of electronic equipment.
- 64.0 Demonstrate proper electronic assembly methods.

### **Exploration of Maritime Technology**

- 65.0 Demonstrate knowledge relating to the historical origins of the maritime industry from vessel development, cultural, and trade perspectives.
- 66.0 Demonstrate proficiency in understanding the various career paths in the maritime industry.
- 67.0 Demonstrate an understanding of required skills sets by mariners including, safety training, regulations, and leadership.
- 68.0 Demonstrate proficiency in using engineering methods for ship construction and design.
- 69.0 Identify and explain various vessels and their use.
- 70.0 Evaluate the environmental impact of the maritime industry.
- 71.0 Examine the potential and use of marine resources.
- 72.0 Demonstrate an understanding of oceanography concepts.
- 73.0 Demonstrate an understanding of the fundamentals of marine biology.

### **Exploration of Logistics and Supply Chain Technology**

- 74.0 Demonstrate an understanding of global logistics and supply chain.
- 75.0 Demonstrate an understanding of transportation systems.
- 76.0 Demonstrate professional communication skills.
- 77.0 Demonstrate customer service skills.
- 78.0 Demonstrate an understanding of warehouse operations.
- 79.0 Demonstrate an understanding of storage and control operations.

### **Exploration of Green Construction and Architecture Technology**

- 80.0 Demonstrate an understanding of the built environment.
- 81.0 Demonstrate an understanding of the green environment.
- 82.0 Use building laws and codes, style, convenience, cost, climate, and function to select building designs.
- 83.0 Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.
- 84.0 Describe the human impact on the environment and identify ways to minimize environmental impacts.
- 85.0 Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions and accurately measure drawing dimensions.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Introduction to Technology  
**Course Number:** 8600010  
**Course Length:** Semester  
**Teacher Certification:** Refer to the Program Structure section

**Course Description:**

The purpose of this course is to give students an introduction to the areas of technology and to introduce students to the design and problem solving processes using manipulative skills while working cooperatively with others in team activities.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate an understanding of the characteristics and scope of technology.--The student will be able to:
01.01	Develop new products and systems to solve problems or to help do things that could not be done without the help of technology.
01.02	Describe the development of technology as a human activity that is the result of individual or collective needs and the ability to be creative.
01.03	Explain how technology is closely linked with creativity, which has resulted in innovation.
02.0	Demonstrate an understanding of the core concepts of technology.--The student will be able to:
02.01	Identify technological systems including input, processes, output, and, at times, feedback.
02.02	Define systems thinking, involving considering how every part relates to others.
02.03	Identify control systems having no feedback path and requiring human intervention, and control system using feedback.
02.04	Identify how technological systems can be connected to one another.
02.05	Diagnose malfunctions of any part of a system that may affect the function and quality of the system.
02.06	Identify requirements or parameters placed on the development of a product or system.
02.07	Identify trade-offs as a decision process recognizing the need for careful compromises among competing factors.
03.0	Demonstrate an understanding of the relationships among technologies and the connection between technology and other fields of study.- -The student will be able to:
03.01	Explain how technological systems interact with one another.
03.02	Explain how knowledge gained from other fields of study has a direct effect on the development of technological products and systems.
04.0	Demonstrate an understanding of the cultural, social, economic, and political effects of technology.--The student will be able to:
04.01	Describe ethical issues associated with the development and use of technology.

## CTE Standards and Benchmarks

04.02	Describe the economic, political, and cultural issues that are influenced by the development and use of technology.
05.0	Demonstrate an understanding of the effects of technology on the environment.--The student will be able to:
05.01	Describe the management of waste produced by technological systems as an important societal issue.
05.02	Identify how technologies can be used to repair damage caused by natural disasters and to break down waste from the use of various products and systems.
06.0	Demonstrate an understanding of the role of society in the development and use of technology.--The student will be able to:
06.01	Identify changes in society and the creation of new needs and wants caused by the use of inventions and innovations.
06.02	Understand how social and cultural priorities and values are reflected in technological devices.
07.0	Demonstrate an understanding of the influence of technology on history.--The student will be able to:
07.01	Identify inventions and innovations that have evolved by using slow and methodical processes of tests and refinements.
07.02	Explain how the specialization of function has been at the heart of many technological improvements.
08.0	Demonstrate an understanding of the attributes of design.--The student will be able to:
08.01	Use design as a creative planning process that leads to useful products and systems.
08.02	Explain why there is no perfect design.
08.03	Identify criteria and constraints that are requirements for a design.
08.04	Demonstrate the ability to properly identify different resources used in projects.
09.0	Demonstrate an understanding of engineering design.--The student will be able to:
09.01	Identify the design process involving a set of steps, which can be performed in different sequences and repeated as needed.
09.02	Define brainstorming as a group problem-solving design process in which each person in the group presents his or her ideas in an open forum.
09.03	Model, test, evaluate and modify designs to transform ideas into practical solutions.
10.0	Demonstrate an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.--The student will be able to:
10.01	Use troubleshooting as a problem-solving method used to identify the cause of a malfunction in a technological system.
10.02	Define invention as a process of turning ideas and imagination into devices and systems and innovation as the process of modifying an existing product or system to improve it.
10.03	Identify technological problems that are best solved through experimentation.
11.0	Demonstrate the abilities to apply the design process.--The student will be able to:
11.01	Apply a design process to solve problems in and beyond the laboratory-classroom.
11.02	Specify criteria and constraints for the design.

## CTE Standards and Benchmarks

11.03	Test and evaluate the design in relation to pre-established requirements, such as criteria and constraints, and refine as needed.
11.04	Make a product or system and document the solution.
12.0	Demonstrate the abilities to use and maintain technological products and systems.--The student will be able to:
12.01	Use information provided in manuals, protocols, or by experienced people to see and understand how things work.
12.02	Use tools, materials, and machines safely to diagnose, adjust, and repair systems.
12.03	Use computers and calculators in various applications.
13.0	Demonstrate the abilities to assess the impact of products and systems.--The student will be able to:
13.01	Use data collected to analyze and interpret trends in order to identify the positive or negative effects of a technology.
13.02	Interpret and evaluate the accuracy of the information obtained and determine if it is useful.
14.0	Demonstrate an understanding of and be able to select and use medical technologies.--The student will be able to:
14.01	Explain how advances and innovations in medical technologies are used to improve healthcare.
14.02	Explain how the vaccines developed for use in immunization require specialized technologies to support environments in which a sufficient amount of vaccines are produced.
15.0	Demonstrate an understanding of and be able to select and use agricultural and related biotechnologies.--The student will be able to:
15.01	Identify technological advances in agriculture directly affecting the time and number of people required to produce food for a large population.
15.02	Explain how biotechnology applies the principles of biology to create commercial products or processes.
16.0	Demonstrate an understanding of and be able to select and use energy and power technologies.--The student will be able to:
16.01	Define energy as the capacity to do work.
16.02	Explain how energy can be used to do work, using many processes.
16.03	Define power systems used to drive and provide propulsion to other technological products and systems.
17.0	Demonstrate an understanding of and be able to select and use information and communication technologies.--The student will be able to:
17.01	Identify information and communication systems that allow information to be transferred from human to human, human to machine, machine to machine, and machine to human.
17.02	Define communication systems made up of a source, encoder, transmitter, receiver, decoder, and destination.
18.0	Demonstrate an understanding of and be able to select and use transportation technologies.--The student will be able to:
18.01	Describe how transporting people and goods involve a combination of individuals and vehicles.
18.02	Identify subsystems of transportation vehicles, such as structural, propulsion, suspension, guidance, control, and support that must function together for a system to work effectively.
19.0	Demonstrate an understanding of and be able to select and use manufacturing technologies.--The student will be able to:

## CTE Standards and Benchmarks

19.01	Define manufacturing systems using mechanical processes that change the form of materials through processes of separating, forming, combining, and conditioning them.
19.02	Classify manufactured goods as durable and non-durable.
19.03	Define manufacturing technologies that are used to modify or alter manufactured products.
19.04	Explain that materials must first be located before they can be extracted from the earth through processes such as harvesting, drilling, and mining.
20.0	Demonstrate an understanding of and be able to select and use construction technologies.--The student will be able to:
20.01	Identify factors such as style, convenience, cost, climate, and function in the selection of designs for structures.
20.02	Explain that structures rest on a foundation.
20.03	Classify structures as temporary or permanent.
21.0	Demonstrate proper and safe procedures while working with technological tools, apparatus, equipment, systems, and materials.--The student will be able to:
21.01	Follow classroom/laboratory safety rules and procedures.
21.02	Demonstrate good housekeeping at workstations within a classroom/laboratory.
21.03	Conduct classroom/laboratory activities and equipment operations in a safe manner.
21.04	Exercise care and respect for all tools, equipment, and materials.
21.05	Identify color-coding safety standards.
21.06	Safely use hand tools and power equipment.
21.07	Explain fire prevention and safety precautions and practices for extinguishing fires.
21.08	Identify harmful effects/potential dangers of familiar hazardous substances/devices to people and the environment.
22.0	Exhibit positive human relations and leadership skills.--The student will be able to:
22.01	Perform roles in a student personnel system or in a career and technical student organization (CTSO).
22.02	Work cooperatively with others.
23.0	Discuss individual interests, aptitudes, and opportunities as they relate to a career.--The student will be able to:
23.01	Describe individual strengths and weaknesses.
23.02	Discuss individual interests related to a career.
23.03	Identify careers within specific areas of technology.
23.04	Explore careers within specific areas of interest.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Exploring Technology  
**Course Number:** 8600020  
**Course Length:** Semester  
**Teacher Certification:** Refer to the Program Structure section

**Course Description:**

The purpose of this course is to give students an opportunity to explore the areas of technology and associated careers available in technical fields. Students will be given the opportunity to solve technological problems while gaining an understanding of the effects of technology on our everyday lives.

<b>CTE Standards and Benchmarks</b>	
<b>01.0</b>	Demonstrate an understanding of the characteristics and scope of technology.--The student will be able to:
01.01	Develop new products and systems to solve problems or to help do things that could not be done without the help of technology.
01.02	Describe the development of technology as a human activity that is the result of individual or collective needs and the ability to be creative.
01.03	Explain how technology is closely linked with creativity, which has resulted in innovation.
01.04	Demonstrate how corporations can often create demand for a product by bringing it onto the market and advertising it.
<b>02.0</b>	Demonstrate an understanding of the core concepts of technology.--The student will be able to:
02.01	Describe technological systems including input, processes, output, and, at times, feedback.
02.02	Apply systems thinking, involving considering how every part relates to others.
02.03	Identify control systems having no feedback path and requiring human intervention, and control systems using feedback.
02.04	Explain how technological systems can be connected to one another.
02.05	Repair malfunctions of any part of a system that may affect the function and quality of the system.
02.06	Compare and contrast requirements or parameters placed on the development of a product or system.
02.07	Compare and contrast trade-offs as a decision process recognizing the need for careful compromises among competing factors.
02.08	Describe different technologies that involve different sets of processes.
02.09	Perform basic maintenance as the process of inspecting and servicing a product or system on a regular basis in order for it to continue functioning properly, to extend its life, or to upgrade its capability.
02.10	Utilize controls and mechanisms or particular steps that people perform using information about the system that causes systems to change.

## CTE Standards and Benchmarks

03.0	Demonstrate an understanding of the relationships among technologies and the connection between technology and other fields of study.- -The student will be able to:
03.01	Modify the way technological systems interact with one another.
03.02	Apply a product, system, or environment developed for one setting in another setting.
03.03	Explain how knowledge gained from other fields of study has a direct effect on the development of technological products and systems.
04.0	Demonstrate an understanding of the cultural, social, economic, and political effects of technology.--The student will be able to:
04.01	Identify the ways that use of technology affects humans, including their safety, comfort, choices, and attitudes about technology's development and use.
04.02	Explain that technology, by itself, is neither good nor bad; but decisions about the use of products and systems can result in desirable or undesirable consequences.
04.03	Identify ethical issues associated with the development and use of technology.
04.04	Identify the economic, political, and cultural issues that are influenced by the development and use of technology.
05.0	Demonstrate an understanding of the effects of technology on the environment.--The student will be able to:
05.01	Describe the management of waste produced by technological systems as an important societal issue.
05.02	Describe how technologies can be used to repair damage caused by natural disasters and to break down waste from the use of various products and systems.
05.03	Make decisions about the development and use of technologies that put environmental and economic concerns in direct competition with one another.
06.0	Demonstrate an understanding of the role of society in the development and use of technology.--The student will be able to:
06.01	Describe the development of technologies that has resulted from the demands, values, and interests of individuals, businesses, industries, and societies.
06.02	Describe changes in society and the creation of new needs and wants caused by the use of inventions and innovations.
06.03	Understand social and cultural priorities and values that are reflected in technological devices.
06.04	Explain how meeting societal expectations is the driving force behind the acceptance and use of products and systems.
07.0	Demonstrate an understanding of the influence of technology on history.--The student will be able to:
07.01	Identify inventions and innovations that have evolved by using slow and methodical processes of tests and refinements.
07.02	Explain how the specialization of function has been at the heart of many technological improvements.
07.03	Identify how the design and construction of structures for service or convenience evolving from the development of techniques for measurement, controlling systems, and the understanding of spatial relationships.
07.04	Investigate how, that in the past, an invention or innovation was not usually developed with the knowledge of science.
08.0	Demonstrate an understanding of the attributes of design.--The student will be able to:



## CTE Standards and Benchmarks

08.01	Use design as a creative planning process that leads to useful products and systems.
08.02	Explain why there is no perfect design.
08.03	Evaluate criteria and constraints that are requirements for a design.
08.04	Demonstrate the ability to properly identify different resources used in projects.
09.0	Demonstrate an understanding of engineering design.--The student will be able to:
09.01	Utilize the design process involving a set of steps, which can be performed in different sequences and repeated as needed.
09.02	Employ brainstorming as a group problem-solving design process in which each person in the group presents his or her ideas in an open forum.
09.03	Model, test, evaluate and modify designs to transform ideas into practical solutions.
10.0	Demonstrate an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.--The student will be able to:
10.01	Use troubleshooting as a problem-solving method used to identify the cause of a malfunction in a technological system.
10.02	Describe invention as a process of turning ideas and imagination into devices and systems and innovation as the process of modifying an existing product or system to improve it.
10.03	Identify technological problems that are best solved through experimentation.
11.0	Demonstrate the abilities to apply the design process.--The student will be able to:
11.01	Apply a design process to solve problems in and beyond the laboratory-classroom.
11.02	Specify criteria and constraints for the design.
11.03	Make two-dimensional and three-dimensional representations of the designed solution.
11.04	Test and evaluate the design in relation to pre-established requirements, such as criteria and constraints, and refine as needed.
11.05	Make a product or system and document the solution.
12.0	Demonstrate the abilities to use and maintain technological products and systems.--The student will be able to:
12.01	Use information provided in manuals, protocols, or by experienced people to see and understand how things work.
12.02	Use tools, materials, and machines safely to diagnose, adjust, and repair systems.
12.03	Use computers and calculators in various applications.
12.04	Operate and maintain systems in order to achieve a given purpose.
13.0	Demonstrate the abilities to assess the impact of products and systems.--The student will be able to:
13.01	Design and use instruments to gather data.
13.02	Use data collected to analyze and interpret trends in order to identify the positive or negative effects of a technology.

## CTE Standards and Benchmarks

13.03	Identify trends and monitor potential consequences of technological development.
13.04	Interpret and evaluate the accuracy of the information obtained and determine if it is useful.
14.0	Demonstrate an understanding of and be able to select and use medical technologies.--The student will be able to:
14.01	Describe how advances and innovations in medical technologies are used to improve healthcare.
14.02	Describe how sanitation processes used in the disposal of medical products help to protect people from harmful organisms and disease, and shape the ethics of medical safety.
14.03	Explain how the vaccines developed for use in immunization require specialized technologies to support environments in which a sufficient amount of vaccines are produced.
14.04	Describe genetic engineering involving modifying the structure of DNA to produce novel genetic make-ups.
15.0	Demonstrate an understanding of and be able to select and use agricultural and related biotechnologies.--The student will be able to:
15.01	Describe technological advances in agriculture directly affecting the time and number of people required to produce food for a large population.
15.02	Describe how a wide range of specialized equipment and practices is used to improve the production of food, fiber, fuel, and other useful products and in the care of animals.
15.03	Explain how biotechnology applies the principles of biology to create commercial products or processes.
15.04	Create artificial ecosystems that are human-made complexes that replicate some aspects of natural environments.
15.05	Explain how the development of refrigeration, freezing, dehydration, preservation, and irradiation provide long-term storage of food and reduce the health risks caused by tainted food.
16.0	Demonstrate an understanding of and be able to select and use energy and power technologies.--The student will be able to:
16.01	Define energy as the capacity to do work.
16.02	Explain how energy can be used to do work, using many processes.
16.03	Define power as the rate at which energy is converted from one form to another or transferred from one place to another, or the rate at which work is done.
16.04	Describe power systems used to drive and provide propulsion to other technological products and systems.
16.05	Explain how much of the energy used in our environment is not used efficiently.
17.0	Demonstrate an understanding of and be able to select and use information and communication technologies.--The student will be able to:
17.01	Create information and communication systems that allow information to be transferred from human to human, human to machine, machine to machine, and machine to human.
17.02	Describe communication systems made up of a source, encoder, transmitter, receiver, decoder, and destination.
17.03	Consider factors that influence the design of a message, such as the intended audience, medium, purpose, and nature of the message.
17.04	Use symbols, measurements, and drawings to promote clear communication by providing a common language to express ideas.

## CTE Standards and Benchmarks

18.0 Demonstrate an understanding of and be able to select and use transportation technologies.--The student will be able to:

18.01 Describe how transporting people and goods involve a combination of individuals and vehicles.

18.02 Describe subsystems of transportation vehicles, such as structural, propulsion, suspension, guidance, control, and support that must function together for a system to work effectively.

18.03 Summarize processes, such as receiving, holding, storing, loading, moving, unloading, delivering, evaluating, marketing, managing, communicating, and using conventions are necessary for the entire transportation system to operate efficiently.

18.04 Describe how governmental regulations often influence the design and operation of transportation systems.

19.0 Demonstrate an understanding of and be able to select and use manufacturing technologies.--The student will be able to:

19.01 Describe manufacturing systems using mechanical processes that change the form of materials through processes of separating, forming, combining, and conditioning them.

19.02 Classify manufactured goods as durable and non-durable.

19.03 Employ the manufacturing process including the designing, development, making, and servicing of products and systems.

19.04 Describe manufacturing technologies that are used to modify or alter manufactured products.

19.05 Explain that materials must first be located before they can be extracted from the earth through processes such as harvesting, drilling, and mining.

20.0 Demonstrate an understanding of and be able to select and use construction technologies.--The student will be able to:

20.01 Research building laws and codes.

20.02 Identify factors such as style, convenience, cost, climate, and function in the selection of designs for structures.

20.03 Explain that structures rest on a foundation.

20.04 Classify structures as temporary or permanent.

20.05 Describe subsystems of a building.

21.0 Demonstrate proper and safe procedures while working with technological tools, apparatus, equipment, systems, and materials.--The student will be able to:

21.01 Follow classroom/laboratory safety rules and procedures.

21.02 Demonstrate good housekeeping at workstations within a classroom/laboratory.

21.03 Conduct classroom/laboratory activities and equipment operations in a safe manner.

21.04 Exercise care and respect for all tools, equipment, and materials.

21.05 Select appropriate tools, machines, and equipment to accomplish a given task.

21.06 Identify color-coding safety standards.

21.07 Safely use hand tools and power equipment.

## CTE Standards and Benchmarks

21.08 Explain fire prevention and safety precautions and practices for extinguishing fires.

21.09 Identify harmful effects/potential dangers of familiar hazardous substances/devices to people and the environment.

22.0 Exhibit positive human relations and leadership skills.--The student will be able to:

22.01 Perform roles in a student personnel system or in a career and technical student organization (CTSO).

22.02 Work cooperatively with others.

23.0 Discuss individual interests, aptitudes, and opportunities as they relate to a career.--The student will be able to:

23.01 Identify individual strengths and weaknesses.

23.02 Discuss individual interests related to a career.

23.03 Identify careers within specific areas of technology.

23.04 Explore careers within specific areas of interest.

23.05 Form an understanding and appreciation for work after listening to or observing technology workers.

23.06 Form an understanding and appreciation for work after participating in a simulated technology group project in the laboratory.

23.07 Form an understanding and appreciation for the roles and work of technology workers.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Exploration of Communications Technology  
**Course Number:** 8600030  
**Course Length:** Semester  
**Teacher Certification:** Refer to the Program Structure section

**Course Description:**

The purpose of this course is to give students an opportunity to explore the area of communications technology and its associated careers. Students will be given the opportunity to solve technological problems using a variety of tools, materials, processes and systems while gaining an understanding of the effects of communications technology on our everyday lives. A list of minimum tools and equipment to implement this course is located at the end of this framework.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate an understanding of the characteristics and scope of technology.--The student will be able to:
01.01	Develop new products and systems to solve problems or to help do things that could not be done without the help of technology.
01.02	Describe the development of technology as a human activity that is the result of individual or collective needs and the ability to be creative.
01.03	Explain how technology is closely linked with creativity, which has resulted in innovation.
01.04	(Explain, Demonstrate) how corporations can often create demand for a product by bringing it onto the market and advertising it.
02.0	Demonstrate an understanding of the core concepts of technology.--The student will be able to:
02.01	Identify technological systems including input, processes, output, and, at times, feedback.
02.02	Apply systems thinking, involving considering how every part relates to others.
03.0	Demonstrate an understanding of the relationships among technologies and the connection between technology and other fields of study.- -The student will be able to:
03.01	Apply a product, system, or environment developed for one setting in another setting.
03.02	Explain how knowledge gained from other fields of study has a direct effect on the development of technological products and systems.
04.0	Demonstrate an understanding of the cultural, social, economic, and political effects of technology.--The student will be able to:
04.01	Describe the ways that the use of communication technologies affects humans, including their safety, comfort, choices, and attitudes.
04.02	Explain that communication technology, by itself, is neither good nor bad; but decisions about the use of products and systems can result in desirable or undesirable consequences.
04.03	Describe ethical issues associated with the development and use of communication technology.

## CTE Standards and Benchmarks

04.04	Describe the economic, political, and cultural issues that are influenced by the development and use of communication technology.
05.0	Demonstrate an understanding of the effects of technology on the environment.--The student will be able to:
05.01	Describe the management of waste produced by communication technological systems as an important societal issue.
05.02	Identify how communication technologies can be affected by natural disaster.
05.03	Make decisions about the development and use of communication technologies that put environmental and economic concerns in direct competition with one another.
06.0	Demonstrate an understanding of the role of society in the development and use of technology.--The student will be able to:
06.01	Describe the development of technologies that has resulted from the demands, values, and interests of individuals, businesses, industries, and societies.
06.02	Describe changes in society and the creation of new needs and wants caused by the use of inventions and innovations.
06.03	Describe social and cultural priorities and values that are reflected in technological devices.
06.04	Explain how meeting societal expectations is the driving force behind the acceptance and use of products and systems.
07.0	Demonstrate an understanding of the influence of technology on history.--The student will be able to:
07.01	Describe inventions and innovations that have evolved by using slow and methodical processes of tests and refinements.
07.02	Explain how the specialization of function has been at the heart of many technological improvements.
07.03	Explain that in the past, an invention or innovation was not usually developed with the knowledge of science.
08.0	Demonstrate an understanding of the attributes of design.--The student will be able to:
08.01	Use design as a creative planning process that leads to useful products and systems.
08.02	Explain why there is no perfect design.
08.03	Evaluate criteria and constraints that are requirements for a design.
09.0	Demonstrate an understanding of engineering design.--The student will be able to:
09.01	Utilize the design process involving a set of steps, which can be performed in different sequences and repeated as needed.
09.02	Employ brainstorming as a group problem-solving design process in which each person in the group presents his or her ideas in an open forum.
09.03	Model, test, evaluate and modify designs to transform ideas into practical solutions.
10.0	Demonstrate an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.--The student will be able to:
10.01	Use troubleshooting as a problem-solving method used to identify the cause of a malfunction in a technological system.
10.02	Describe invention as a process of turning ideas and imagination into devices and systems and innovation as the process of modifying an existing product or system to improve it.

## CTE Standards and Benchmarks

10.03	Identify technological problems that are best solved through experimentation.
11.0	Demonstrate the abilities to apply the design process.--The student will be able to:
11.01	Apply a design process to solve problems in and beyond the laboratory-classroom.
11.02	Specify criteria and constraints for the design.
11.03	Make two-dimensional and three-dimensional representations of the designed solution.
11.04	Test and evaluate the design in relation to pre-established requirements, such as criteria and constraints, and refine as needed.
11.05	Make a product or system and document the solution.
12.0	Demonstrate the abilities to use and maintain technological products and systems.--The student will be able to:
12.01	Use information provided in manuals, protocols, or by experienced people to see and understand how things work.
12.02	Use tools, materials, and machines safely to diagnose, adjust, and repair systems.
12.03	Use computers and calculators in various applications.
12.04	Operate and maintain systems in order to achieve a given purpose.
13.0	Demonstrate the abilities to assess the impact of products and systems.--The student will be able to:
13.01	Design and use instruments to gather data.
13.02	Use data collected to analyze and interpret trends in order to identify the positive or negative effects of a technology.
13.03	Identify trends and monitor potential consequences of technological development.
13.04	Interpret and evaluate the accuracy of the information obtained and determine if it is useful.
17.0	Demonstrate an understanding of and be able to select and use information and communication technologies.--The student will be able to:
17.01	Create information and communication that allow information to be transferred from human to human, human to machine, machine to machine, and machine to human.
17.02	Consider factors that influence the design of a message, such as the intended audience, medium, purpose, and nature of the message.
17.03	Use symbols, measurements, and drawings to promote clear communication by providing a common language to express ideas.
21.0	Demonstrate proper and safe procedures while working with technological tools, apparatus, equipment, systems, and materials.--The student will be able to:
21.01	Follow classroom/laboratory safety rules and procedures.
21.02	Demonstrate good housekeeping at workstations within a classroom/laboratory.
21.03	Conduct classroom/laboratory activities and equipment operations in a safe manner.
21.04	Exercise care and respect for all tools, equipment, and materials.

## CTE Standards and Benchmarks

21.05	Select appropriate tools, machines, and equipment to accomplish a given task.
21.06	Identify color-coding safety standards.
21.07	Safely use hand tools and power equipment.
21.08	Explain fire prevention and safety precautions and practices for extinguishing fires.
21.09	Identify harmful effects/potential dangers of familiar hazardous substances/devices to people and the environment.
22.0	Exhibit positive human relations and leadership skills.--The student will be able to:
22.01	Perform roles in a student personnel system or in a career and technical student organization (CTSO).
22.02	Work cooperatively with others.
23.0	Discuss individual interests and aptitudes as they relate to a career.--The student will be able to:
23.01	Identify individual strengths and weaknesses.
23.02	Discuss individual interests related to a career.
23.03	List occupations, job requirements, and job opportunities in communication technology.
23.04	List academic and career programs at the secondary levels in communication technology.
24.0	Demonstrate an application of basic digital publishing techniques.--The student will be able to:
24.01	Utilize digital publishing to combine input, editing, and output into a finished product.
24.02	Utilize the components of layouts including type, typography and illustration to digitally manipulate the elements of a published product.
24.03	Develop a web page using appropriate digital software.
24.04	Create a document on a digital publishing system by inputting existing digitized graphics or by digitizing original art or photographs on a digitizing scanner.
25.0	Identify and describe the major types of printing techniques used in print production.--The student will be able to:
25.01	Identify and explain standard printing processes including but not limited to: relief, gravure, screen process, and lithographic printing.
25.02	Utilize common design principles to create camera ready art.
25.03	Produce a printed product using a current printing method.
25.04	Utilize appropriate finishing techniques on a printed project.
26.0	Identify and demonstrate the role of electronic communication.--The student will be able to:
26.01	Explain how to create code, transmit, and receive messages using electronic devices.
26.02	List and explain the common communication categories.



## CTE Standards and Benchmarks

26.03	Define and explain the use of telecommunications in everyday life.
26.04	Utilize a telecommunications device to transmit and receive an electronic message.
26.05	Produce an audio and/or visual product using electronic communication technology.
27.0	Identify and demonstrate the role of optical technology.--The student will be able to:
27.01	Identify the purposes and property of light as used in communication technology.
27.02	Explain how light signals are transmitted and received via different optical devices to include but not limited to: fiber optics, satellite communication, bandwidth, laser, and photography.
27.03	Generate a product using optical technology.

### **\*\*\* Minimum Equipment and Tool needs for an Exploration of Communications Technology Course \*\*\***

1. No more than a 2 students/computer ratio complete with built in DVD drive; appropriate furniture; lockdowns, and chairs
2. Class set plus 5 of textbooks
3. Software (all to include site licenses): publishing; design; word processing; office management; Photoshop or equal; illustrator or equal; 3D animation
4. One working color inkjet/laser printer
5. Internet access to the entire lab
6. One teacher computer station with an ergonomic chair (height adjustable, cushioned, on wheels)
7. One scanner
8. Three digital cameras

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Exploration of Production Technology  
**Course Number:** 8600040  
**Course Length:** Semester  
**Teacher Certification:** Refer to the Program Structure section

**Course Description:**

The purpose of this course is to give students an opportunity to explore the area of production technology and its associated careers. Students will be given the opportunity to solve technological problems using a variety of tools, materials, processes and systems while gaining an understanding of the effects of production technology on our everyday lives.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate an understanding of the characteristics and scope of technology.--The student will be able to:
01.01	Develop new products and systems to solve problems or to help do things that could not be done without the help of technology.
01.02	Describe the development of technology as a human activity that is the result of individual or collective needs and the ability to be creative.
01.03	Explain how technology is closely linked with creativity, which has resulted in innovation.
01.04	Demonstrate how corporations can often create demand for a product by bringing it onto the market and advertising it.
02.0	Demonstrate an understanding of the core concepts of technology.--The student will be able to:
02.01	Describe technological systems including input, processes, output, and, at times, feedback.
02.02	Apply systems thinking, involving considering how every part relates to others.
02.03	Identify control systems having no feedback path and requiring human intervention, and control system using feedback.
02.04	Explain how technological systems can be connected to one another.
02.05	Repair malfunctions of any part of a system that may affect the function and quality of the system.
02.06	Compare and contrast requirements or parameters placed on the development of a product or system.
02.07	Compare and contrast trade-offs as a decision process recognizing the need for careful compromises among competing factors.
02.08	Perform basic maintenance as the process of inspecting and servicing a product or system on a regular basis in order for it to continue functioning properly, to extend its life, or to upgrade its capability.
02.09	Utilize controls and mechanisms or particular steps that people perform using information about the system that causes systems to change.
03.0	Demonstrate an understanding of the relationships among technologies and the connection between technology and other fields of study.- -The student will be able to:

## CTE Standards and Benchmarks

03.01	Modify the way technological systems interact with one another.
03.02	Apply a product, system, or environment developed for one setting in another setting.
03.03	Explain how knowledge gained from other fields of study has a direct effect on the development of technological products and systems.
04.0	Demonstrate an understanding of the cultural, social, economic, and political effects of technology.--The student will be able to:
04.01	Identify the ways that use of technology affects humans, including their safety, comfort, choices, and attitudes about technology's development and use.
04.02	Explain that technology, by itself, is neither good nor bad; but decisions about the use of products and systems can result in desirable or undesirable consequences.
04.03	Identify ethical issues associated with the development and use of technology.
04.04	Identify the economic, political, and cultural issues that are influenced by the development and use of technology.
05.0	Demonstrate an understanding of the effects of technology on the environment.--The student will be able to:
05.01	Describe the management of waste produced by technological systems as an important societal issue.
05.02	Describe how technologies can be used to repair damage caused by natural disasters and to break down waste from the use of various products and systems.
05.03	Make decisions about the development and use of technologies that put environmental and economic concerns in direct competition with one another.
06.0	Demonstrate an understanding of the role of society in the development and use of technology.--The student will be able to:
06.01	Describe the development of technologies that has resulted from the demands, values, and interests of individuals, businesses, industries, and societies.
06.02	Describe changes in society and the creation of new needs and wants caused by the use of inventions and innovations.
06.03	Understand social and cultural priorities and values that are reflected in technological devices.
06.04	Explain how meeting societal expectations is the driving force behind the acceptance and use of products and systems.
07.0	Demonstrate an understanding of the influence of technology on history.--The student will be able to:
07.01	Identify inventions and innovations that have evolved by using slow and methodical processes of tests and refinements.
07.02	Explain how the specialization of function has been at the heart of many technological improvements.
07.03	Identify the design and construction of structures for service or convenience evolving from the development of techniques for measurement, controlling systems, and the understanding of spatial relationships.
07.04	Explain that in the past, an invention or innovation was not usually developed with the knowledge of science.
08.0	Demonstrate an understanding of the attributes of design.--The student will be able to:
08.01	Use design as a creative planning process that leads to useful products and systems.
08.02	Explain why there is no perfect design.

## CTE Standards and Benchmarks

08.03	Evaluate criteria and constraints that are requirements for a design.
09.0	Demonstrate an understanding of engineering design.--The student will be able to:
09.01	Utilize the design process involving a set of steps, which can be performed in different sequences and repeated as needed.
09.02	Employ brainstorming as a group problem-solving design process in which each person in the group presents his or her ideas in an open forum.
09.03	Model, test, evaluate and modify designs to transform ideas into practical solutions.
10.0	Demonstrate an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.--The student will be able to:
10.01	Use troubleshooting as a problem-solving method used to identify the cause of a malfunction in a technological system.
10.02	Describe invention as a process of turning ideas and imagination into devices and systems and innovation as the process of modifying an existing product or system to improve it.
10.03	Identify technological problems that are best solved through experimentation.
11.0	Demonstrate the abilities to apply the design process.--The student will be able to:
11.01	Apply a design process to solve problems in and beyond the laboratory-classroom.
11.02	Specify criteria and constraints for the design.
11.03	Make two-dimensional and three-dimensional representations of the designed solution.
11.04	Test and evaluate the design in relation to pre-established requirements, such as criteria and constraints, and refine as needed.
11.05	Make a product or system and document the solution.
12.0	Demonstrate the abilities to use and maintain technological products and systems.--The student will be able to:
12.01	Use information provided in manuals, protocols, or by experienced people to see and understand how things work.
12.02	Use tools, materials, and machines safely to diagnose, adjust, and repair systems.
12.03	Use computers and calculators in various applications.
12.04	Operate and maintain systems in order to achieve a given purpose.
13.0	Demonstrate the abilities to assess the impact of products and systems.--The student will be able to:
13.01	Design and use instruments to gather data.
13.02	Use data collected to analyze and interpret trends in order to identify the positive or negative effects of a technology.
13.03	Identify trends and monitor potential consequences of technological development.
13.04	Interpret and evaluate the accuracy of the information obtained and determine if it is useful.
19.0	Demonstrate an understanding of and be able to select and use manufacturing technologies.--The student will be able to:

## CTE Standards and Benchmarks

19.01	Describe manufacturing systems using mechanical processes that change the form of materials through processes of separating, forming, combining, and conditioning them.
19.02	Classify manufactured goods as durable and non-durable.
19.03	Employ the manufacturing process including the designing, development, making, and servicing of products and systems.
19.04	Describe manufacturing technologies that are used to modify or alter manufactured products.
19.05	Explain that materials must first be located before they can be extracted from the earth through processes such as harvesting, drilling, and mining.
21.0	Demonstrate proper and safe procedures while working with technological tools, apparatus, equipment, systems, and materials.--The student will be able to:
21.01	Follow classroom/laboratory safety rules and procedures.
21.02	Demonstrate good housekeeping at workstations within a classroom/laboratory.
21.03	Conduct classroom/laboratory activities and equipment operations in a safe manner.
21.04	Exercise care and respect for all tools, equipment, and materials.
21.05	Select appropriate tools, machines, and equipment to accomplish a given task.
21.06	Identify color-coding safety standards.
21.07	Safely use hand tools and power equipment.
21.08	Explain fire prevention and safety precautions and practices for extinguishing fires.
21.09	Identify harmful effects/potential dangers of familiar hazardous substances/devices to people and the environment.
22.0	Exhibit positive human relations and leadership skills.--The student will be able to:
22.01	Perform roles in a student personnel system or in a career and technical student organization (CTSO).
22.02	Work cooperatively with others.
23.0	Discuss individual interests, aptitudes, and opportunities as they relate to a career.--The student will be able to:
23.01	Identify individual strengths and weaknesses.
23.02	Discuss individual interests related to a career.
23.03	List occupations, job requirements, and job opportunities in production technology.
23.04	List occupational training programs and academic programs at the secondary/postsecondary levels in production technology.
28.0	Identify evolving technologies of production systems.--The student will be able to:
28.01	List evolving technologies of manufacturing and construction industries.
28.02	Discuss the evolution of technologies related to manufacturing systems and construction processes.

## CTE Standards and Benchmarks

28.03	Brainstorm futuristic production systems.
29.0	Perform special skills unique to manufacturing technology.--The student will be able to:
29.01	Design a product for custom or mass production manufacturing.
29.02	Plan a mass production system for manufacturing a product.
29.03	Perform materials forming practices such as casting or molding, and compressing or stretching.
29.04	Perform materials separating practices such as shearing, chip removing, and other separating processes.
29.05	Perform materials conditioning practices such as heat treating, physical conditioning, or through chemical reactions.
29.06	Combine components through mixing, coating, bonding, and mechanical fastening.
29.07	Assemble a product or a subassembly of a product.
30.0	Express knowledge of factors that impact manufacturing technology and practices.--The student will be able to:
30.01	Explain economic factors that impact on manufacturing technology.
30.02	Research and identify consumer demands for a manufactured product.
30.03	Identify sources of raw materials and/or standard stock materials needed for a manufactured product.
30.04	Interview, hire, train, or promote an applicant or employee for a simulated mass production manufacturing activity.
30.05	Define the terms "organized labor" and "collective bargaining."
30.06	Prepare a plan for marketing and distributing a manufactured product.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Exploration of Aerospace Technology  
**Course Number:** 8600050  
**Course Length:** Semester  
**Teacher Certification:** Refer to the Program Structure section

**Course Description:**

The purpose of this course is to give students an opportunity to explore the area of aerospace technology and its associated careers. Students will be given the opportunity to solve technological problems using a variety of tools, materials, processes and systems while gaining an understanding of the effects of aerospace technology on our everyday lives.

<b>CTE Standards and Benchmarks</b>	
<b>01.0</b>	Demonstrate an understanding of the characteristics and scope of technology.--The student will be able to:
01.01	Describe the development of technology as a human activity that is the result of individual or collective needs and the ability to be creative.
01.02	Explain how technology is closely linked with creativity, which has resulted in innovation.
01.03	Demonstrate how corporations can often create demand for a product by bringing it onto the market and advertising it.
01.04	Describe the development of technology as a human activity that is the result of individual or collective needs and the ability to be creative.
<b>02.0</b>	Demonstrate an understanding of the core concepts of technology.--The student will be able to:
02.01	Describe technological systems including input, processes, output, and, at times, feedback.
02.02	Apply systems thinking, involving considering how every part relates to others.
02.03	Identify control systems having no feedback path and requiring human intervention, and control systems using feedback.
02.04	Explain how technological systems can be connected to one another.
02.05	Repair malfunctions of any part of a system that may affect the function and quality of the system.
02.06	Compare and contrast requirements or parameters placed on the development of a product or system.
02.07	Compare and contrast trade-offs as a decision process recognizing the need for careful compromises among competing factors.
02.08	Describe different technologies that involve different sets of processes.
02.09	Perform basic maintenance as the process of inspecting and servicing a product or system on a regular basis in order for it to continue functioning properly, to extend its life, or to upgrade its capability.
02.10	Utilize controls and mechanisms or particular steps that people perform using information about the system that causes systems to change.

## CTE Standards and Benchmarks

03.0	Demonstrate an understanding of the relationships among technologies and the connection between technology and other fields of study.- -The student will be able to:
03.01	Modify the way technological systems interact with one another.
03.02	Apply a product, system, or environment developed for one setting in another setting.
03.03	Explain how knowledge gained from other fields of study has a direct effect on the development of technological products and systems.
04.0	Demonstrate an understanding of the cultural, social, economic, and political effects of technology.--The student will be able to:
04.01	Identify the ways that use of technology affects humans, including their safety, comfort, choices, and attitudes about technology's development and use.
04.02	Explain that technology, by itself, is neither good nor bad; but decisions about the use of products and systems can result in desirable or undesirable consequences.
04.03	Identify ethical issues associated with the development and use of technology.
04.04	Identify the economic, political, and cultural issues that are influenced by the development and use of technology.
05.0	Demonstrate an understanding of the effects of technology on the environment.--The student will be able to:
05.01	Describe the management of waste produced by technological systems as an important societal issue.
05.02	Describe how technologies can be used to repair damage and to break down waste from the use of various products and systems.
05.03	Make decisions about the development and use of technologies that put environmental and economic concerns in direct competition with one another.
06.0	Demonstrate an understanding of the role of society in the development and use of technology.--The student will be able to:
06.01	Describe the development of technologies that has resulted from the demands, values, and interests of individuals, businesses, industries, and societies.
06.02	Describe changes in society and the creation of new needs and wants caused by the use of inventions and innovations.
06.03	Understand social and cultural priorities and values that are reflected in technological devices.
06.04	Explain how meeting societal expectations is the driving force behind the acceptance and use of products and systems.
07.0	Demonstrate an understanding of the influence of technology on history.--The student will be able to:
07.01	Identify inventions and innovations that have evolved by using slow and methodical processes of tests and refinements.
07.02	Explain how the specialization of function has been at the heart of many technological improvements.
07.03	Identify the design and construction of structures for service or convenience evolving from the development of techniques for measurement, controlling systems, and the understanding of spatial relationships.
07.04	Investigate how, that in the past, an invention or innovation was not usually developed with the knowledge of science.
08.0	Demonstrate an understanding of the attributes of design.--The student will be able to:
08.01	Use design as a creative planning process that leads to useful products and systems.



## CTE Standards and Benchmarks

08.02	Explain why there is no perfect design.
08.03	Evaluate criteria and constraints that are requirements for a design.
09.0	Demonstrate an understanding of engineering design.--The student will be able to:
09.01	Utilize the design process involving a set of steps, which can be performed in different sequences and repeated as needed.
09.02	Employ brainstorming as a group problem-solving design process in which each person in the group presents his or her ideas in an open forum.
09.03	Model, test, evaluate and modify designs to transform ideas into practical solutions.
10.0	Demonstrate an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.--The student will be able to:
10.01	Use troubleshooting as a problem-solving method used to identify the cause of a malfunction in a technological system.
10.02	Describe invention as a process of turning ideas and imagination into devices and systems and innovation as the process of modifying an existing product or system to improve it.
10.03	Identify technological problems that are best solved through experimentation.
11.0	Demonstrate the abilities to apply the design process.--The student will be able to:
11.01	Apply a design process to solve problems in and beyond the laboratory-classroom.
11.02	Specify criteria and constraints for the design.
11.03	Make two-dimensional and three-dimensional representations of the designed solution.
11.04	Test and evaluate the design in relation to pre-established requirements, such as criteria and constraints, and refine as needed.
11.05	Make a product or system and document the solution.
12.0	Demonstrate the abilities to use and maintain technological products and systems.--The student will be able to:
12.01	Use information provided in manuals, protocols, or by experienced people to see and understand how things work.
12.02	Use tools, materials, and machines safely to diagnose, adjust, and repair systems.
12.03	Use computers and calculators in various applications.
12.04	Operate and maintain systems in order to achieve a given purpose.
13.0	Demonstrate the abilities to assess the impact of products and systems.--The student will be able to:
13.01	Design and use instruments to gather data.
13.02	Use data collected to analyze and interpret trends in order to identify the positive or negative effects of a technology.
13.03	Identify trends and monitor potential consequences of technological development.
13.04	Interpret and evaluate the accuracy of the information obtained and determine if it is useful.

## CTE Standards and Benchmarks

17.0	Demonstrate an understanding of and be able to select and use information and communication technologies.--The student will be able to:
17.01	Describe communication systems made up of a source, encoder, transmitter, receiver, decoder, and destination (e.g. phonetic alphabet).
17.02	Use symbols, measurements, and drawings to promote clear communication by providing a common language to express ideas (e.g. airport symbols and signs).
32.0	Demonstrate an understanding of and be able to select and use aerospace technologies.--The student will be able to:
32.01	Describe subsystems of aerospace vehicles, such as structural, propulsion, suspension, guidance, control, and support that must function together for a system to work effectively.
32.02	Employ processes, such as receiving, holding, storing, loading, moving, unloading, delivering, evaluating, marketing, managing, communicating, and using conventions that are necessary for the entire transportation system to operate efficiently.
21.0	Demonstrate proper and safe procedures while working with technological tools, apparatus, equipment, systems, and materials.--The student will be able to:
21.01	Follow classroom/laboratory safety rules and procedures.
21.02	Demonstrate good housekeeping at workstations within a classroom/laboratory.
21.03	Conduct classroom/laboratory activities and equipment operations in a safe manner.
21.04	Exercise care and respect for all tools, equipment, and materials.
21.05	Select appropriate tools, machines, and equipment to accomplish a given task.
21.06	Identify color-coding safety standards.
21.07	Safely use hand tools and power equipment.
21.08	Explain fire prevention and safety precautions and practices for extinguishing fires.
21.09	Identify harmful effects/potential dangers of familiar hazardous substances/devices to people and the environment.
22.0	Exhibit positive human relations and leadership skills.--The student will be able to:
22.01	Perform roles in a student personnel system or in a career and technical student organization (CTSO).
22.02	Work cooperatively with others.
31.0	Discuss educational and training requirements as they relate to various aerospace careers.--The student will be able to:
31.01	Research and identify various aerospace career choices.
31.02	Discuss individual interests related to a career.
31.03	List occupations, job requirements, and job opportunities in aerospace technology.
31.04	List occupational training programs and academic programs at the secondary/postsecondary levels in aerospace technology.
33.0	Demonstrate knowledge of the basic principles of aerostatics and aerodynamics.--The student will be able to:

## CTE Standards and Benchmarks

33.01	Define terminology associated with aerostatics and aerodynamics.
33.02	Explain how buoyancy principles affect an object in a fluid.
33.03	Explain how Bernoulli's Principle applies to an object in flight.
33.04	Identify and describe basic forces acting on an object in flight.
33.05	Build an aerostatic vehicle.
33.06	Build an aerodynamic vehicle.
34.0	Identify and demonstrate knowledge of both liquid and solid propellant rocket propulsion systems.--The student will be able to:
34.01	Define technical terminology associated with propulsion systems.
34.02	Identify parts of a solid-propellant rocket engine.
34.03	Identify parts of a liquid-propellant rocket engine.
34.04	Discuss the principles of rocket propulsion.
34.05	Construct a solid- or liquid- propellant model rocket.
35.0	Define and describe the stages and forms of interference in basic satellite systems.--The student will be able to:
35.01	Describe the basic functions and advantages of a communications satellite.
35.02	Describe the basic functions and advantages of a weather satellite.
35.03	Describe the basic functions and advantages of a navigation satellite.
36.0	Become familiar with the basic information provided by a sectional chart.--The student will be able to:
36.01	Extract and utilize information from an aeronautical chart legend.
36.02	Identify locations on an aeronautical chart using latitude and longitude
36.03	Differentiate between statute and nautical miles.
36.04	Determine a course and distance between two points on an aeronautical chart using a navigational plotter.
37.0	Describe and define different categories of aviation.--The student will be able to:
37.01	Describe military aviation and be able to identify military aircraft types and missions.
37.02	Define general aviation (including business and executive) and be able identify general aviation aircraft types.
37.03	Define air carrier and be able identify air carrier aircraft types.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Exploration of Transportation Technology  
**Course Number:** 8600240  
**Course Length:** Semester  
**Teacher Certification:** Refer to the Program Structure section

**Course Description:**

The purpose of this course is to give students an opportunity to explore the area of transportation technology and its associated careers. Students will be given the opportunity to solve technological problems using a variety of tools, materials, processes and systems while gaining an understanding of the effects of transportation technology on our everyday lives.

<b>CTE Standards and Benchmarks</b>	
<b>01.0</b>	Demonstrate an understanding of the characteristics and scope of technology.--The student will be able to:
01.01	Develop new products and systems to solve problems or to help do things that could not be done without the help of technology.
01.02	Describe the development of technology as a human activity that is the result of individual or collective needs and the ability to be creative.
01.03	Explain how technology is closely linked with creativity, which has resulted in innovation.
01.04	Demonstrate how corporations can often create demand for a product by bringing it onto the market and advertising it.
<b>02.0</b>	Demonstrate an understanding of the core concepts of technology.--The student will be able to:
02.01	Describe technological systems including input, processes, output, and, at times, feedback.
02.02	Apply systems thinking, involving considering how every part relates to others.
02.03	Identify control systems having no feedback path and requiring human intervention, and control systems using feedback.
02.04	Explain how technological systems can be connected to one another.
02.05	Repair malfunctions of any part of a system that may affect the function and quality of the system.
02.06	Compare and contrast requirements or parameters placed on the development of a product or system.
02.07	Compare and contrast trade-offs as a decision process recognizing the need for careful compromises among competing factors.
02.08	Describe different technologies that involve different sets of processes.
02.09	Perform basic maintenance as the process of inspecting and servicing a product or system on a regular basis in order for it to continue functioning properly, to extend its life, or to upgrade its capability.
02.10	Utilize controls and mechanisms or particular steps that people perform using information about the system that causes systems to change.

## CTE Standards and Benchmarks

03.0	Demonstrate an understanding of the relationships among technologies and the connection between technology and other fields of study.- -The student will be able to:
03.01	Modify the way technological systems interact with one another.
03.02	Apply a product, system, or environment developed for one setting in another setting.
03.03	Explain how knowledge gained from other fields of study has a direct effect on the development of technological products and systems.
04.0	Demonstrate an understanding of the cultural, social, economic, and political effects of technology.--The student will be able to:
04.01	Identify the ways that use of technology affects humans, including their safety, comfort, choices, and attitudes about technology's development and use.
04.02	Explain that technology, by itself, is neither good nor bad; but decisions about the use of products and systems can result in desirable or undesirable consequences.
04.03	Identify ethical issues associated with the development and use of technology.
04.04	Identify the economic, political, and cultural issues that are influenced by the development and use of technology.
05.0	Demonstrate an understanding of the effects of technology on the environment.--The student will be able to:
05.01	Describe the management of waste produced by technological systems as an important societal issue.
05.02	Describe how technologies can be used to repair damage caused by natural disasters and to break down waste from the use of various products and systems.
05.03	Make decisions about the development and use of technologies that put environmental and economic concerns in direct competition with one another.
06.0	Demonstrate an understanding of the role of society in the development and use of technology.--The student will be able to:
06.01	Describe the development of technologies that has resulted from the demands, values, and interests of individuals, businesses, industries, and societies.
06.02	Describe changes in society and the creation of new needs and wants caused by the use of inventions and innovations.
06.03	Understand social and cultural priorities and values that are reflected in technological devices.
06.04	Explain how meeting societal expectations is the driving force behind the acceptance and use of products and systems.
07.0	Demonstrate an understanding of the influence of technology on history.--The student will be able to:
07.01	Identify inventions and innovations that have evolved by using slow and methodical processes of tests and refinements.
07.02	Explain how the specialization of function has been at the heart of many technological improvements.
07.03	Identify the design and construction of structures for service or convenience evolving from the development of techniques for measurement, controlling systems, and the understanding of spatial relationships.
07.04	Investigate how, that in the past, an invention or innovation was not usually developed with the knowledge of science.
08.0	Demonstrate an understanding of the attributes of design.--The student will be able to:

## CTE Standards and Benchmarks

08.01	Use design as a creative planning process that leads to useful products and systems.
08.02	Explain why there is no perfect design.
08.03	Evaluate criteria and constraints that are requirements for a design.
09.0	Demonstrate an understanding of engineering design.--The student will be able to:
09.01	Utilize the design process involving a set of steps, which can be performed in different sequences and repeated as needed.
09.02	Employ brainstorming as a group problem-solving design process in which each person in the group presents his or her ideas in an open forum.
09.03	Model, test, evaluate and modify designs to transform ideas into practical solutions.
10.0	Demonstrate an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.--The student will be able to:
10.01	Use troubleshooting as a problem-solving method used to identify the cause of a malfunction in a technological system.
10.02	Describe invention as a process of turning ideas and imagination into devices and systems and innovation as the process of modifying an existing product or system to improve it.
10.03	Identify technological problems that are best solved through experimentation.
11.0	Demonstrate the abilities to apply the design process.--The student will be able to:
11.01	Apply a design process to solve problems in and beyond the laboratory-classroom.
11.02	Specify criteria and constraints for the design.
11.03	Make two-dimensional and three-dimensional representations of the designed solution.
11.04	Test and evaluate the design in relation to pre-established requirements, such as criteria and constraints, and refine as needed.
11.05	Make a product or system and document the solution.
12.0	Demonstrate the abilities to use and maintain technological products and systems.--The student will be able to:
12.01	Use information provided in manuals, protocols, or by experienced people to see and understand how things work.
12.02	Use tools, materials, and machines safely to diagnose, adjust, and repair systems.
12.03	Use computers and calculators in various applications.
12.04	Operate and maintain systems in order to achieve a given purpose.
13.0	Demonstrate the abilities to assess the impact of products and systems.--The student will be able to:
13.01	Design and use instruments to gather data.
13.02	Use data collected to analyze and interpret trends in order to identify the positive or negative effects of a technology.
13.03	Identify trends and monitor potential consequences of technological development.

## CTE Standards and Benchmarks

13.04	Interpret and evaluate the accuracy of the information obtained and determine if it is useful.
16.0	Demonstrate an understanding of and be able to select and use energy and power technologies.--The student will be able to:
16.01	Define energy as the capacity to do work.
16.02	Explain how energy can be used to do work, using many processes.
16.03	Define power as the rate at which energy is converted from one form to another or transferred from one place to another, or the rate at which work is done.
16.04	Describe power systems used to drive and provide propulsion to other technological products and systems.
16.05	Explain how much of the energy used in our environment is not used efficiently.
18.0	Demonstrate an understanding of and be able to select and use transportation technologies.--The student will be able to:
18.01	Describe how transporting people and goods involve a combination of individuals and vehicles.
18.02	Describe subsystems of transportation vehicles, such as structural, propulsion, suspension, guidance, control, and support that must function together for a system to work effectively.
18.03	Identify governmental regulations that influence the design and operation of transportation systems.
18.04	Employ processes, such as receiving, holding, storing, loading, moving, unloading, delivering, evaluating, marketing, managing, communicating, and using conventions that are necessary for the entire transportation system to operate efficiently.
21.0	Demonstrate proper and safe procedures while working with technological tools, apparatus, equipment, systems, and materials.--The student will be able to:
21.01	Follow classroom/laboratory safety rules and procedures.
21.02	Demonstrate good housekeeping at workstations within a classroom/laboratory.
21.03	Conduct classroom/laboratory activities and equipment operations in a safe manner.
21.04	Exercise care and respect for all tools, equipment, and materials.
21.05	Select appropriate tools, machines, and equipment to accomplish a given task.
21.06	Identify color-coding safety standards.
21.07	Safely use hand tools and power equipment.
21.08	Explain fire prevention and safety precautions and practices for extinguishing fires.
21.09	Identify harmful effects/potential dangers of familiar hazardous substances/devices to people and the environment.
22.0	Exhibit positive human relations and leadership skills.--The student will be able to:
22.01	Perform roles in a student personnel system or in a career and technical student organization (CTSO).
22.02	Work cooperatively with others.
23.0	Discuss individual interests and aptitudes as they relate to a career.--The student will be able to:

## CTE Standards and Benchmarks

23.01	Identify individual strengths and weaknesses.
23.02	Discuss individual interests related to a career.
23.03	List occupations, job requirements, and job opportunities in transportation technology.
23.04	List occupational training programs and academic programs at the secondary/postsecondary levels in transportation technology.
38.0	Perform special skills unique to transportation technologies.--The student will be able to:
38.01	Disassemble and reassemble or perform maintenance on a muscle-powered bicycle.
38.02	Disassemble and reassemble or perform maintenance on a pneumatic or hydraulic device.
38.03	Disassemble and reassemble or perform maintenance on an internal combustion engine.
38.04	Disassemble and reassemble or perform maintenance on an electrical motor, generator, or alternator.
38.05	Construct, maintain, or repair a land, water, or air/space vehicle.
39.0	Express knowledge of the industries that deal with transportation technology.--The student will be able to:
39.01	Describe power and energy applications in transportation technology.
39.02	Identify transportation products that have been developed by industries.
39.03	List and describe transportation systems produced or used by industries.



**Florida Department of Education  
Student Performance Standards**

**Course Title:** Exploration of Power and Energy Technology  
**Course Number:** 8600250  
**Course Length:** Semester  
**Teacher Certification:** Refer to the Program Structure section

**Course Description:**

The purpose of this course is to give students an opportunity to explore the area of power and energy technology and its associated careers. Students will be given the opportunity to solve technological problems using a variety of tools, materials, processes and systems while gaining an understanding of the effects of power and energy technology on our everyday lives.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate an understanding of the characteristics and scope of technology.--The student will be able to:
01.01	Develop new products and systems to solve problems or to help do things that could not be done without the help of technology.
01.02	Describe the development of technology as a human activity that is the result of individual or collective needs and the ability to be creative.
01.03	Explain how technology is closely linked with creativity, which has resulted in innovation.
01.04	Demonstrate how corporations can often create demand for a product by bringing it onto the market and advertising it.
02.0	Demonstrate an understanding of the core concepts of technology.--The student will be able to:
02.01	Describe technological systems including input, processes, output, and, at times, feedback.
02.02	Apply systems thinking, involving considering how every part relates to others.
02.03	Identify control systems having no feedback path and requiring human intervention, and control systems using feedback.
02.04	Explain how technological systems can be connected to one another.
02.05	Repair malfunctions of any part of a system that may affect the function and quality of the system.
02.06	Compare and contrast requirements or parameters placed on the development of a product or system.
02.07	Compare and contrast trade-offs as a decision process recognizing the need for careful compromises among competing factors.
02.08	Describe different technologies that involve different sets of processes.
02.09	Perform basic maintenance as the process of inspecting and servicing a product or system on a regular basis in order for it to continue functioning properly, to extend its life, or to upgrade its capability.
02.10	Utilize controls and mechanisms or particular steps that people perform using information about the system that causes systems to change.

## CTE Standards and Benchmarks

03.0	Demonstrate an understanding of the relationships among technologies and the connection between technology and other fields of study.- -The student will be able to:
03.01	Modify the way technological systems interact with one another.
03.02	Apply a product, system, or environment developed for one setting in another setting.
03.03	Explain how knowledge gained from other fields of study has a direct effect on the development of technological products and systems.
04.0	Demonstrate an understanding of the cultural, social, economic, and political effects of technology.--The student will be able to:
04.01	Identify the ways that use of technology affects humans, including their safety, comfort, choices, and attitudes about technology's development and use.
04.02	Explain that technology, by itself, is neither good nor bad; but decisions about the use of products and systems can result in desirable or undesirable consequences.
04.03	Identify ethical issues associated with the development and use of technology.
04.04	Identify the economic, political, and cultural issues that are influenced by the development and use of technology.
05.0	Demonstrate an understanding of the effects of technology on the environment.--The student will be able to:
05.01	Describe the management of waste produced by technological systems as an important societal issue.
05.02	Describe how technologies can be used to repair damage and to break down waste from the use of various products and systems.
05.03	Make decisions about the development and use of technologies that put environmental and economic concerns in direct competition with one another.
06.0	Demonstrate an understanding of the role of society in the development and use of technology.--The student will be able to:
06.01	Describe the development of technologies that has resulted from the demands, values, and interests of individuals, businesses, industries, and societies.
06.02	Describe changes in society and the creation of new needs and wants caused by the use of inventions and innovations.
06.03	Understand social and cultural priorities and values that are reflected in technological devices.
06.04	Explain how meeting societal expectations is the driving force behind the acceptance and use of products and systems.
07.0	Demonstrate an understanding of the influence of technology on history.--The student will be able to:
07.01	Identify inventions and innovations that have evolved by using slow and methodical processes of tests and refinements.
07.02	Explain how the specialization of function has been at the heart of many technological improvements.
07.03	Identify the design and construction of structures for service or convenience evolving from the development of techniques for measurement, controlling systems, and the understanding of spatial relationships.
07.04	Investigate how, that in the past, an invention or innovation was not usually developed with the knowledge of science.
08.0	Demonstrate an understanding of the attributes of design.--The student will be able to:
08.01	Use design as a creative planning process that leads to useful products and systems.

## CTE Standards and Benchmarks

08.02	Explain why there is no perfect design.
08.03	Evaluate criteria and constraints that are requirements for a design.
09.0	Demonstrate an understanding of engineering design.--The student will be able to:
09.01	Utilize the design process involving a set of steps, which can be performed in different sequences and repeated as needed.
09.02	Employ brainstorming as a group problem-solving design process in which each person in the group presents his or her ideas in an open forum.
09.03	Model, test, evaluate and modify designs to transform ideas into practical solutions.
10.0	Demonstrate an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.--The student will be able to:
10.01	Use troubleshooting as a problem-solving method used to identify the cause of a malfunction in a technological system.
10.02	Describe invention as a process of turning ideas and imagination into devices and systems and innovation as the process of modifying an existing product or system to improve it.
10.03	Identify technological problems that are best solved through experimentation.
11.0	Demonstrate the abilities to apply the design process.--The student will be able to:
11.01	Apply a design process to solve problems in and beyond the laboratory-classroom.
11.02	Specify criteria and constraints for the design.
11.03	Make two-dimensional and three-dimensional representations of the designed solution.
11.04	Test and evaluate the design in relation to pre-established requirements, such as criteria and constraints, and refine as needed.
11.05	Make a product or system and document the solution.
12.0	Demonstrate the abilities to use and maintain technological products and systems.--The student will be able to:
12.01	Use information provided in manuals, protocols, or by experienced people to see and understand how things work.
12.02	Use tools, materials, and machines safely to diagnose, adjust, and repair systems.
12.03	Use computers and calculators in various applications.
12.04	Operate and maintain systems in order to achieve a given purpose.
13.0	Demonstrate the abilities to assess the impact of products and systems.--The student will be able to:
13.01	Design and use instruments to gather data.
13.02	Use data collected to analyze and interpret trends in order to identify the positive or negative effects of a technology.
13.03	Identify trends and monitor potential consequences of technological development.
13.04	Interpret and evaluate the accuracy of the information obtained and determine if it is useful.

## CTE Standards and Benchmarks

16.0	Demonstrate an understanding of and be able to select and use energy and power technologies.--The student will be able to:
16.01	Define energy as the capacity to do work.
16.02	Explain how energy can be used to do work, using many processes.
16.03	Define power as the rate at which energy is converted from one form to another or transferred from one place to another, or the rate at which work is done.
16.04	Describe power systems used to drive and provide propulsion to other technological products and systems.
16.05	Explain how much of the energy used in our environment is not used efficiently.
21.0	Demonstrate proper and safe procedures while working with technological tools, apparatus, equipment, systems, and materials.--The student will be able to:
21.01	Follow classroom/laboratory safety rules and procedures.
21.02	Demonstrate good housekeeping at workstations within a classroom/laboratory.
21.03	Conduct classroom/laboratory activities and equipment operations in a safe manner.
21.04	Exercise care and respect for all tools, equipment, and materials.
21.05	Select appropriate tools, machines, and equipment to accomplish a given task.
21.06	Identify color-coding safety standards.
21.07	Safely use hand tools and power equipment.
21.08	Explain fire prevention and safety precautions and practices for extinguishing fires.
21.09	Identify harmful effects/potential dangers of familiar hazardous substances/devices to people and the environment.
22.0	Exhibit positive human relations and leadership skills.--The student will be able to:
22.01	Perform roles in a student personnel system or in a career and technical student organization (CTSO).
22.02	Work cooperatively with others.
23.0	Discuss individual interests, aptitudes, and opportunities as they relate to a career.--The student will be able to:
23.01	Identify individual strengths and weaknesses.
23.02	Discuss individual interests related to a career.
23.03	List occupations, job requirements, and employment opportunities in power energy technology.
23.04	List occupational training programs and academic programs available at the secondary and postsecondary levels in power and energy technologies.
40.0	Perform special skills unique to power and energy technologies.--The student will be able to:
40.01	Disassemble and reassemble or perform maintenance on a human-powered device.

## CTE Standards and Benchmarks

40.02	Disassemble and reassemble or perform maintenance on a pneumatic or hydraulic device.
40.03	Disassemble and reassemble or perform maintenance on an internal combustion engine.
40.04	Disassemble and reassemble or perform maintenance on an electrical motor, generator, or alternator.
40.05	Construct a water-powered, wind-powered, steam-powered, thermal-powered, or solar-powered device.
41.0	Express knowledge of the industries that deal with power and energy technology.--The student will be able to:
41.01	Identify the technologies that supply or control energy sources.
41.02	Identify technologies that produce power systems.
41.03	Describe power and energy applications in everyday life.
41.04	List energy systems produced or used by industries.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Exploration of Engineering Technology  
**Course Number:** 8600060  
**Course Length:** Semester  
**Teacher Certification:** Refer to the Program Structure section

**Course Description:**

The purpose of this course is to give students an opportunity to explore the area of engineering technology and its associated careers. Students will be given the opportunity to solve technological problems using a variety of tools, materials, processes and systems while gaining an understanding of the effects of engineering technology on our everyday lives.

<b>CTE Standards and Benchmarks</b>	
<b>01.0</b>	Demonstrate an understanding of the characteristics and scope of technology.--The student will be able to:
01.01	Develop new products and systems to solve problems or to help do things that could not be done without the help of technology.
01.02	Describe the development of technology as a human activity that is the result of individual or collective needs and the ability to be creative.
01.03	Explain how technology is closely linked with creativity, which has resulted in innovation.
01.04	Demonstrate how corporations can often create demand for a product by bringing it onto the market and advertising it.
<b>02.0</b>	Demonstrate an understanding of the core concepts of technology.--The student will be able to:
02.01	Describe technological systems including input, processes, output, and, at times, feedback.
02.02	Apply systems thinking, involving considering how every part relates to others.
02.03	Identify control systems having no feedback path and requiring human intervention, and control systems using feedback.
02.04	Explain how technological systems can be connected to one another.
02.05	Repair malfunctions of any part of a system that may affect the function and quality of the system.
02.06	Compare and contrast requirements or parameters placed on the development of a product or system.
02.07	Compare and contrast trade-offs as a decision process recognizing the need for careful compromises among competing factors.
02.08	Describe different technologies that involve different sets of processes.
02.09	Perform basic maintenance as the process of inspecting and servicing a product or system on a regular basis in order for it to continue functioning properly, to extend its life, or to upgrade its capability.
02.10	Utilize controls and mechanisms or particular steps that people perform using information about the system that causes systems to change.

## CTE Standards and Benchmarks

03.0	Demonstrate an understanding of the relationships among technologies and the connection between technology and other fields of study.- -The student will be able to:
03.01	Modify the way technological systems interact with one another.
03.02	Apply a product, system, or environment developed for one setting in another setting.
03.03	Explain how knowledge gained from other fields of study has a direct effect on the development of technological products and systems.
04.0	Demonstrate an understanding of the cultural, social, economic, and political effects of technology.--The student will be able to:
04.01	Identify the ways that use of technology affects humans, including their safety, comfort, choices, and attitudes about technology's development and use.
04.02	Explain that technology, by itself, is neither good nor bad; but decisions about the use of products and systems can result in desirable or undesirable consequences.
04.03	Identify ethical issues associated with the development and use of technology.
04.04	Identify the economic, political, and cultural issues that are influenced by the development and use of technology.
05.0	Demonstrate an understanding of the effects of technology on the environment.--The student will be able to:
05.01	Describe the management of waste produced by technological systems as an important societal issue.
05.02	Describe how technologies can be used to repair damage caused by natural disasters and to break down waste from the use of various products and systems.
05.03	Make decisions about the development and use of technologies that put environmental and economic concerns in direct competition with one another.
06.0	Demonstrate an understanding of the role of society in the development and use of technology.--The student will be able to:
06.01	Describe the development of technologies that has resulted from the demands, values, and interests of individuals, businesses, industries, and societies.
06.02	Describe changes in society and the creation of new needs and wants caused by the use of inventions and innovations.
06.03	Understand social and cultural priorities and values that are reflected in technological devices.
06.04	Explain how meeting societal expectations is the driving force behind the acceptance and use of products and systems.
07.0	Demonstrate an understanding of the influence of technology on history.--The student will be able to:
07.01	Identify inventions and innovations that have evolved by using slow and methodical processes of tests and refinements.
07.02	Explain how the specialization of function has been at the heart of many technological improvements.
07.03	Identify the design and construction of structures for service or convenience evolving from the development of techniques for measurement, controlling systems, and the understanding of spatial relationships.
07.04	Investigate how, that in the past, an invention or innovation was not usually developed with the knowledge of science.
08.0	Demonstrate an understanding of the attributes of design.--The student will be able to:

## CTE Standards and Benchmarks

08.01	Use design as a creative planning process that leads to useful products and systems.
08.02	Explain why there is no perfect design.
08.03	Evaluate criteria and constraints that are requirements for a design.
09.0	Demonstrate an understanding of engineering design.--The student will be able to:
09.01	Utilize the design process involving a set of steps, which can be performed in different sequences and repeated as needed.
09.02	Employ brainstorming as a group problem-solving design process in which each person in the group presents his or her ideas in an open forum.
09.03	Model, test, evaluate and modify designs to transform ideas into practical solutions.
10.0	Demonstrate an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.--The student will be able to:
10.01	Use troubleshooting as a problem-solving method used to identify the cause of a malfunction in a technological system.
10.02	Describe invention as a process of turning ideas and imagination into devices and systems and innovation as the process of modifying an existing product or system to improve it.
10.03	Identify technological problems that are best solved through experimentation.
11.0	Demonstrate the abilities to apply the design process.--The student will be able to:
11.01	Apply a design process to solve problems in and beyond the laboratory-classroom.
11.02	Specify criteria and constraints for the design.
11.03	Make two-dimensional and three-dimensional representations of the designed solution.
11.04	Test and evaluate the design in relation to pre-established requirements, such as criteria and constraints, and refine as needed.
11.05	Make a product or system and document the solution.
12.0	Demonstrate the abilities to use and maintain technological products and systems.--The student will be able to:
12.01	Use information provided in manuals, protocols, or by experienced people to see and understand how things work.
12.02	Use tools, materials, and machines safely to diagnose, adjust, and repair systems.
12.03	Use computers and calculators in various applications.
12.04	Operate and maintain systems in order to achieve a given purpose.
13.0	Demonstrate the abilities to assess the impact of products and systems.--The student will be able to:
13.01	Design and use instruments to gather data.
13.02	Use data collected to analyze and interpret trends in order to identify the positive or negative effects of a technology.
13.03	Identify trends and monitor potential consequences of technological development.



## CTE Standards and Benchmarks

13.04	Interpret and evaluate the accuracy of the information obtained and determine if it is useful.
21.0	Demonstrate proper and safe procedures while working with technological tools, apparatus, equipment, systems, and materials.--The student will be able to:
21.01	Follow classroom/laboratory safety rules and procedures.
21.02	Demonstrate good housekeeping at workstations within a classroom/laboratory.
21.03	Conduct classroom/laboratory activities and equipment operations in a safe manner.
21.04	Exercise care and respect for all tools, equipment, and materials.
21.05	Select appropriate tools, machines, and equipment to accomplish a given task.
21.06	Identify color-coding safety standards.
21.07	Safely use hand tools and power equipment.
21.08	Explain fire prevention and safety precautions and practices for extinguishing fires.
21.09	Identify harmful effects/potential dangers of familiar hazardous substances/devices to people and the environment.
22.0	Exhibit positive human relations and leadership skills.--The student will be able to:
22.01	Perform roles in a student personnel system or in a career and technical student organization (CTSO).
22.02	Work cooperatively with others.
23.0	Discuss individual interests, aptitudes, and opportunities as they relate to a career.--The student will be able to:
23.01	Identify individual strengths and weaknesses.
23.02	Discuss individual interests related to a career.
23.03	List occupations, job requirements, and job opportunities in engineering technology
23.04	List academic and career programs at the secondary levels in engineering technology.
42.0	Demonstrate skill in technical sketching and drawing as it relates to engineering design.--The student will be able to:
42.01	Explain the concepts of technical sketching and drawing.
42.02	Create an orthographic sketch or drawing with appropriate layout and dimensions.
42.03	Create an isometric sketch or drawing.
43.0	Demonstrate foundational knowledge and skills associated with the design of engineering systems (e.g. mechanical, fluid, electrical systems).--The student will be able to:
43.01	Measure and calculate dimensions of parts using metric and customary systems.
43.02	Identify simple machines.
43.03	Explain mechanical advantage.

## CTE Standards and Benchmarks

43.04	Define scientific quantities that are used in engineering designs (e.g. mass, weight, force, voltage, current, resistance).
43.05	Read and use system schematics (e.g. electrical and hydraulic circuits).
43.06	Assemble, operate, and identify the parts of mechanical and electrical systems.
44.0	Demonstrate understanding and use of measurement tools and systems.--The student will be able to:
44.01	Take and record both U.S customary and SI systems of measurement.
44.02	Convert measurements using both U.S customary and SI systems of measurement.
45.0	Demonstrate an understanding of the engineering process.--The student will be able to:
45.01	Define terminology associated with engineering products and systems.
45.02	Describe the experimental method as it is applied to design.
45.03	Create a model of a design solution to an engineering problem.
45.04	Sketch a graphical or visual solution to an engineering problem.
45.05	Present a report on an engineering design problem, concept or issue.
46.0	Demonstrate foundational knowledge and skills associated with common computer peripherals and computer functions.--The student will be able to:
46.01	Identify and describe the various internal and external components of a computer and their functions (e.g., power supply, hard drive, RAM, mother board, I/O cards/ports, cabling, etc.).
46.02	Identify and describe various computer input devices (e.g., USB, firewall, parallel and serial, Ethernet, printers, camera).
47.0	Demonstrate an understanding of Internet safety and ethics.--The student will be able to:
47.01	Differentiate between viruses and malware, the impact on personal privacy and computer operation, and ways to avoid infection.
47.02	Adhere to cyber safety practices with regard to conducting Internet searches, email, chat rooms, and other social network websites.
47.03	Adhere to Acceptable Use Policies when accessing the Internet.
48.0	Develop fundamental business productivity software skills.--The students will be able to:
48.01	Use appropriate functions in a word processing program. (e.g. format text, insert tables, create bulleted lists)
48.02	Describe a spreadsheet and the ways in which it may be used.
48.03	Describe presentation software, the ways it may be used, and appropriate presentation delivery skills.
48.04	Use appropriate functions in a presentation software program. (e.g. insert images, duplicate slides, format text)
49.0	Successfully work as a member of a team.--The student will be able to:
49.01	Accept responsibility for specific tasks in a given situation.

**CTE Standards and Benchmarks**

49.02 Maintain a positive relationship with other team members.

49.03 Document progress, and provide feedback on work accomplished in a timely manner.

49.04 Complete assigned tasks in a timely and professional manner.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Exploration of Robotics Technology  
**Course Number:** 8600070  
**Course Length:** Semester  
**Teacher Certification:** Refer to the Program Structure section

**Course Description:**

The purpose of this course is to give students an opportunity to explore the area of robotics technology and its associated careers. Students will be given the opportunity to solve technological problems using a variety of tools, materials, processes and systems while gaining an understanding of the effects of robotics technology on our everyday lives.

<b>CTE Standards and Benchmarks</b>	
<b>01.0</b>	Demonstrate an understanding of the characteristics and scope of technology.--The student will be able to:
01.01	Develop new products and systems to solve problems or to help do things that could not be done without the help of technology.
01.02	Describe the development of technology as a human activity that is the result of individual or collective needs and the ability to be creative.
01.03	Explain how technology is closely linked with creativity, which has resulted in innovation.
01.04	Demonstrate how corporations can often create demand for a product by bringing it onto the market and advertising it.
<b>02.0</b>	Demonstrate an understanding of the core concepts of technology.--The student will be able to:
02.01	Describe technological systems including input, processes, output, and, at times, feedback.
02.02	Apply systems thinking, involving considering how every part relates to others.
02.03	Identify control systems having no feedback path and requiring human intervention, and control systems using feedback.
02.04	Explain how technological systems can be connected to one another.
02.05	Repair malfunctions of any part of a system that may affect the function and quality of the system.
02.06	Compare and contrast requirements or parameters placed on the development of a product or system.
02.07	Compare and contrast trade-offs as a decision process recognizing the need for careful compromises among competing factors.
02.08	Describe different technologies that involve different sets of processes.
02.09	Perform basic maintenance as the process of inspecting and servicing a product or system on a regular basis in order for it to continue functioning properly, to extend its life, or to upgrade its capability.
02.10	Utilize controls and mechanisms or particular steps that people perform using information about the system that causes systems to change.

## CTE Standards and Benchmarks

03.0	Demonstrate an understanding of the relationships among technologies and the connection between technology and other fields of study.- -The student will be able to:
03.01	Modify the way technological systems interact with one another.
03.02	Apply a product, system, or environment developed for one setting in another setting.
03.03	Explain how knowledge gained from other fields of study has a direct effect on the development of technological products and systems.
04.0	Demonstrate an understanding of the cultural, social, economic, and political effects of technology.--The student will be able to:
04.01	Identify the ways that use of technology affects humans, including their safety, comfort, choices, and attitudes about technology's development and use.
04.02	Explain that technology, by itself, is neither good nor bad; but decisions about the use of products and systems can result in desirable or undesirable consequences.
04.03	Identify ethical issues associated with the development and use of technology.
04.04	Identify the economic, political, and cultural issues that are influenced by the development and use of technology.
05.0	Demonstrate an understanding of the effects of technology on the environment.--The student will be able to:
05.01	Describe the management of waste produced by technological systems as an important societal issue.
05.02	Describe how technologies can be used to repair damage caused by natural disasters and to break down waste from the use of various products and systems.
05.03	Make decisions about the development and use of technologies that put environmental and economic concerns in direct competition with one another.
06.0	Demonstrate an understanding of the role of society in the development and use of technology.--The student will be able to:
06.01	Describe the development of technologies that has resulted from the demands, values, and interests of individuals, businesses, industries, and societies.
06.02	Describe changes in society and the creation of new needs and wants caused by the use of inventions and innovations.
06.03	Understand social and cultural priorities and values that are reflected in technological devices.
06.04	Explain how meeting societal expectations is the driving force behind the acceptance and use of products and systems.
07.0	Demonstrate an understanding of the influence of technology on history.--The student will be able to:
07.01	Identify inventions and innovations that have evolved by using slow and methodical processes of tests and refinements.
07.02	Explain how the specialization of function has been at the heart of many technological improvements.
07.03	Identify the design and construction of structures for service or convenience evolving from the development of techniques for measurement, controlling systems, and the understanding of spatial relationships.
07.04	Investigate how, that in the past, an invention or innovation was not usually developed with the knowledge of science.
08.0	Demonstrate an understanding of the attributes of design.--The student will be able to:

## CTE Standards and Benchmarks

08.01	Use design as a creative planning process that leads to useful products and systems.
08.02	Explain why there is no perfect design.
08.03	Evaluate criteria and constraints that are requirements for a design.
09.0	Demonstrate an understanding of engineering design.--The student will be able to:
09.01	Utilize the design process involving a set of steps, which can be performed in different sequences and repeated as needed.
09.02	Employ brainstorming as a group problem-solving design process in which each person in the group presents his or her ideas in an open forum.
09.03	Model, test, evaluate and modify designs to transform ideas into practical solutions.
10.0	Demonstrate an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.--The student will be able to:
10.01	Use troubleshooting as a problem-solving method used to identify the cause of a malfunction in a technological system.
10.02	Describe invention as a process of turning ideas and imagination into devices and systems and innovation as the process of modifying an existing product or system to improve it.
10.03	Identify technological problems that are best solved through experimentation.
11.0	Demonstrate the abilities to apply the design process.--The student will be able to:
11.01	Apply a design process to solve problems in and beyond the laboratory-classroom.
11.02	Specify criteria and constraints for the design.
11.03	Make two-dimensional and three-dimensional representations of the designed solution.
11.04	Test and evaluate the design in relation to pre-established requirements, such as criteria and constraints, and refine as needed.
11.05	Make a product or system and document the solution.
12.0	Demonstrate the abilities to use and maintain technological products and systems.--The student will be able to:
12.01	Use information provided in manuals, protocols, or by experienced people to see and understand how things work.
12.02	Use tools, materials, and machines safely to diagnose, adjust, and repair systems.
12.03	Use computers and calculators in various applications.
12.04	Operate and maintain systems in order to achieve a given purpose.
13.0	Demonstrate the abilities to assess the impact of products and systems.--The student will be able to:
13.01	Design and use instruments to gather data.
13.02	Use data collected to analyze and interpret trends in order to identify the positive or negative effects of a technology.
13.03	Identify trends and monitor potential consequences of technological development.

## CTE Standards and Benchmarks

13.04	Interpret and evaluate the accuracy of the information obtained and determine if it is useful.
21.0	Demonstrate proper and safe procedures while working with technological tools, apparatus, equipment, systems, and materials.--The student will be able to:
21.01	Follow classroom/laboratory safety rules and procedures.
21.02	Demonstrate good housekeeping at workstations within a classroom/laboratory.
21.03	Conduct classroom/laboratory activities and equipment operations in a safe manner.
21.04	Exercise care and respect for all tools, equipment, and materials.
21.05	Select appropriate tools, machines, and equipment to accomplish a given task.
21.06	Identify color-coding safety standards.
21.07	Safely use hand tools and power equipment.
21.08	Explain fire prevention and safety precautions and practices for extinguishing fires.
21.09	Identify harmful effects/potential dangers of familiar hazardous substances/devices to people and the environment.
22.0	Exhibit positive human relations and leadership skills.--The student will be able to:
22.01	Perform roles in a student personnel system or in a career and technical student organization (CTSO).
22.02	Work cooperatively with others.
23.0	Discuss individual interests, aptitudes, and opportunities as they relate to a career.--The student will be able to:
23.01	Identify individual strengths and weaknesses.
23.02	Discuss individual interests related to a career.
23.03	List occupations, job requirements, and job opportunities in robotics technology
23.04	List academic and career programs at the secondary levels in robotics technology.
50.0	Demonstrate an understanding of robotics, its history, applications, and evolution.--The student will be able to:
50.01	Explore robotics history through research of the industry.
50.02	Describe various applications of automation and robotics.
50.03	Describe emerging technologies and their implications on the field of robotics.
51.0	Demonstrate an understanding of basic programming concepts.--The student will be able to:
51.01	Apply the engineering design process to the creation of a program
51.02	Discuss the use of algorithms
51.03	Demonstrate the use of flowcharting in documenting an algorithm

## CTE Standards and Benchmarks

51.04	Demonstrate the use of pseudocode in documenting an algorithm
51.05	Explain the function of conditional execution (eg if, if/else) and their uses
51.06	Explain iterative programming structures (e.g., while, do/while) and their uses.
51.07	Demonstrate the use of testing & debugging in the problem solving process
51.08	Create functional program that satisfies prescribed criteria
52.0	Identify the basic subsystems on a robotic system.--The student will be able to:
52.01	Define drivetrain, manipulator, and chassis
52.02	Understand the difference between Ackermann and skid steering
52.03	Identify the difference between Motors and servos
52.04	Calculate simple gear ratios and their relationship with torque vs speed
52.05	Assess the advantages and disadvantages of wheels vs tank treads
52.06	Analyze the characteristics of a sound chassis design
53.0	Describe the role of sensors in the field of robotics.--The student will be able to:
53.01	Define sensor.
53.02	Describe the basic operation common to all sensors.
53.03	Describe the types of sensors and ways in which they can be categorized.
53.04	Investigate the types of manipulators used in a robotic system.
54.0	Build, program, and configure a robot to perform predefined tasks.--The student will be able to:
54.01	Design a robot.
54.02	Create programs as required using robotic software that will allow the robot to perform a set of tasks.
54.03	Create a flow chart that visually describes a basic robotic task.
54.04	Configure subsystems to operate the robot.
54.05	Create a portfolio including drawings and specifications, describing the robot, the tasks and rationale, and the results.
55.0	Solve problems using critical thinking skills, creativity and innovation.--The student will be able to:
55.01	Employ critical thinking skills independently and in teams to solve problems and make decisions.
55.02	Employ critical thinking and interpersonal skills to resolve conflicts.
55.03	Identify and document workplace performance goals and monitor progress toward those goals.



**CTE Standards and Benchmarks**

55.04 Conduct technical research to gather information necessary for decision-making.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Exploration of Technical Design Technology  
**Course Number:** 8600090  
**Course Length:** Semester  
**Teacher Certification:** Refer to the Program Structure section

**Course Description:**

The purpose of this course is to give students an opportunity to explore the area of technical design technology and its associated careers. Students will be given the opportunity to solve technological problems using a variety of tools, materials, processes and systems while gaining an understanding of the effects of technical design technology on our everyday lives.

<b>CTE Standards and Benchmarks</b>	
<b>01.0</b>	Demonstrate an understanding of the characteristics and scope of technology.--The student will be able to:
01.01	Develop new products and systems to solve problems or to help do things that could not be done without the help of technology.
01.02	Describe the development of technology as a human activity that is the result of individual or collective needs and the ability to be creative.
01.03	Explain how technology is closely linked with creativity, which has resulted in innovation.
01.04	Demonstrate how corporations can often create demand for a product by bringing it onto the market and advertising it.
<b>02.0</b>	Demonstrate an understanding of the core concepts of technology.--The student will be able to:
02.01	Describe technological systems including input, processes, output, and, at times, feedback.
02.02	Apply systems thinking, involving considering how every part relates to others.
02.03	Identify control systems having no feedback path and requiring human intervention, and control systems using feedback.
02.04	Explain how technological systems can be connected to one another.
02.05	Repair malfunctions of any part of a system that may affect the function and quality of the system.
02.06	Compare and contrast requirements or parameters placed on the development of a product or system.
02.07	Compare and contrast trade-offs as a decision process recognizing the need for careful compromises among competing factors.
02.08	Describe different technologies that involve different sets of processes.
02.09	Perform basic maintenance as the process of inspecting and servicing a product or system on a regular basis in order for it to continue functioning properly, to extend its life, or to upgrade its capability.
02.10	Utilize controls and mechanisms or particular steps that people perform using information about the system that causes systems to change.

## CTE Standards and Benchmarks

03.0	Demonstrate an understanding of the relationships among technologies and the connection between technology and other fields of study.- -The student will be able to:
03.01	Modify the way technological systems interact with one another.
03.02	Apply a product, system, or environment developed for one setting in another setting.
03.03	Explain how knowledge gained from other fields of study has a direct effect on the development of technological products and systems.
04.0	Demonstrate an understanding of the cultural, social, economic, and political effects of technology.--The student will be able to:
04.01	Identify the ways that use of technology affects humans, including their safety, comfort, choices, and attitudes about technology's development and use.
04.02	Explain that technology, by itself, is neither good nor bad; but decisions about the use of products and systems can result in desirable or undesirable consequences.
04.03	Identify ethical issues associated with the development and use of technology.
04.04	Identify the economic, political, and cultural issues that are influenced by the development and use of technology.
05.0	Demonstrate an understanding of the effects of technology on the environment.--The student will be able to:
05.01	Describe the management of waste produced by technological systems as an important societal issue.
05.02	Describe how technologies can be used to repair damage caused by natural disasters and to break down waste from the use of various products and systems.
05.03	Make decisions about the development and use of technologies that put environmental and economic concerns in direct competition with one another.
06.0	Demonstrate an understanding of the role of society in the development and use of technology.--The student will be able to:
06.01	Describe the development of technologies that has resulted from the demands, values, and interests of individuals, businesses, industries, and societies.
06.02	Describe changes in society and the creation of new needs and wants caused by the use of inventions and innovations.
06.03	Understand social and cultural priorities and values that are reflected in technological devices.
06.04	Explain how meeting societal expectations is the driving force behind the acceptance and use of products and systems.
07.0	Demonstrate an understanding of the influence of technology on history.--The student will be able to:
07.01	Identify inventions and innovations that have evolved by using slow and methodical processes of tests and refinements.
07.02	Explain how the specialization of function has been at the heart of many technological improvements.
07.03	Identify the design and construction of structures for service or convenience evolving from the development of techniques for measurement, controlling systems, and the understanding of spatial relationships.
07.04	Investigate how, that in the past, an invention or innovation was not usually developed with the knowledge of science.
08.0	Demonstrate an understanding of the attributes of design.--The student will be able to:

## CTE Standards and Benchmarks

08.01	Use design as a creative planning process that leads to useful products and systems.
08.02	Explain why there is no perfect design.
08.03	Evaluate criteria and constraints that are requirements for a design.
09.0	Demonstrate an understanding of engineering design.--The student will be able to:
09.01	Utilize the design process involving a set of steps, which can be performed in different sequences and repeated as needed.
09.02	Employ brainstorming as a group problem-solving design process in which each person in the group presents his or her ideas in an open forum.
09.03	Model, test, evaluate and modify designs to transform ideas into practical solutions.
10.0	Demonstrate an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.--The student will be able to:
10.01	Use troubleshooting as a problem-solving method used to identify the cause of a malfunction in a technological system.
10.02	Describe invention as a process of turning ideas and imagination into devices and systems and innovation as the process of modifying an existing product or system to improve it.
10.03	Identify technological problems that are best solved through experimentation.
11.0	Demonstrate the abilities to apply the design process.--The student will be able to:
11.01	Apply a design process to solve problems in and beyond the laboratory-classroom.
11.02	Specify criteria and constraints for the design.
11.03	Make two-dimensional and three-dimensional representations of the designed solution.
11.04	Test and evaluate the design in relation to pre-established requirements, such as criteria and constraints, and refine as needed.
11.05	Make a product or system and document the solution.
12.0	Demonstrate the abilities to use and maintain technological products and systems.--The student will be able to:
12.01	Use information provided in manuals, protocols, or by experienced people to see and understand how things work.
12.02	Use tools, materials, and machines safely to diagnose, adjust, and repair systems.
12.03	Use computers and calculators in various applications.
12.04	Operate and maintain systems in order to achieve a given purpose.
13.0	Demonstrate the abilities to assess the impact of products and systems.--The student will be able to:
13.01	Design and use instruments to gather data.
13.02	Use data collected to analyze and interpret trends in order to identify the positive or negative effects of a technology.
13.03	Identify trends and monitor potential consequences of technological development.

## CTE Standards and Benchmarks

13.04	Interpret and evaluate the accuracy of the information obtained and determine if it is useful.
21.0	Demonstrate proper and safe procedures while working with technological tools, apparatus, equipment, systems, and materials.--The student will be able to:
21.01	Follow classroom/laboratory safety rules and procedures.
21.02	Demonstrate good housekeeping at workstations within a classroom/laboratory.
21.03	Conduct classroom/laboratory activities and equipment operations in a safe manner.
21.04	Exercise care and respect for all tools, equipment, and materials.
21.05	Select appropriate tools, machines, and equipment to accomplish a given task.
21.06	Identify color-coding safety standards.
21.07	Safely use hand tools and power equipment.
21.08	Explain fire prevention and safety precautions and practices for extinguishing fires.
21.09	Identify harmful effects/potential dangers of familiar hazardous substances/devices to people and the environment.
22.0	Exhibit positive human relations and leadership skills.--The student will be able to:
22.01	Perform roles in a student personnel system or in a career and technical student organization (CTSO).
22.02	Work cooperatively with others.
23.0	Discuss individual interests, aptitudes, and opportunities as they relate to a career.--The student will be able to:
23.01	Identify individual strengths and weaknesses.
23.02	Discuss individual interests related to a career.
23.03	List occupations, job requirements, and job opportunities in technical design technology
23.04	List academic and career programs at the secondary levels in technical design technology.
56.0	Demonstrate technical skills and applications common to all types of drafting.--The student will be able to:
56.01	Apply lettering techniques.
56.02	Make freehand sketches.
56.03	Use drafting symbols and alphabet of lines in accordance with technical standards and practices.
56.04	Apply measuring techniques using decimals and fractions.
56.05	Apply industry standard dimensioning techniques.
56.06	Apply geometric construction techniques.
56.07	Interpret information from drawings, prints, and sketches.

## CTE Standards and Benchmarks

56.08 Apply coordinate systems.

57.0 Demonstrate technical knowledge and skills for making basic orthographic drawings.--The student will be able to:

57.01 Describe orthographic projection.

57.02 Identify the six principal views of an object.

57.03 Produce a three-view orthographic drawing using traditional drafting methods.

58.0 Demonstrate technical knowledge and skills for making pictorial drawings.--The student will be able to:

58.01 Explain methods of pictorial drawing.

58.02 Produce an isometric drawing using traditional drafting methods.

58.03 Produce an oblique drawing using traditional drafting methods.

58.04 Produce a perspective drawing using traditional drafting methods.

59.0 Demonstrate technical knowledge and skills for making a three-dimensional study model.--The student will be able to:

59.01 Produce a conceptual sketch.

59.02 Produce a three-dimensioned model.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Exploration of Electronics Technology  
**Course Number:** 8600091  
**Course Length:** Semester  
**Teacher Certification:** Refer to the Program Structure section

**Course Description:**

The purpose of this course is to give students an opportunity to explore the area of electronics technology and its associated careers. Students will be given the opportunity to solve technological problems using a variety of tools, materials, processes and systems while gaining an understanding of the effects of electronics technology on our everyday lives.

<b>CTE Standards and Benchmarks</b>	
<b>01.0</b>	Demonstrate an understanding of the characteristics and scope of technology.--The student will be able to:
01.01	Develop new products and systems to solve problems or to help do things that could not be done without the help of technology.
01.02	Describe the development of technology as a human activity that is the result of individual or collective needs and the ability to be creative.
01.03	Explain how technology is closely linked with creativity, which has resulted in innovation.
01.04	Demonstrate how corporations can often create demand for a product by bringing it onto the market and advertising it.
<b>02.0</b>	Demonstrate an understanding of the core concepts of technology.--The student will be able to:
02.01	Describe technological systems including input, processes, output, and, at times, feedback.
02.02	Apply systems thinking, involving considering how every part relates to others.
02.03	Identify control systems having no feedback path and requiring human intervention, and control systems using feedback.
02.04	Explain how technological systems can be connected to one another.
02.05	Repair malfunctions of any part of a system that may affect the function and quality of the system.
02.06	Compare and contrast requirements or parameters placed on the development of a product or system.
02.07	Compare and contrast trade-offs as a decision process recognizing the need for careful compromises among competing factors.
02.08	Describe different technologies that involve different sets of processes.
02.09	Perform basic maintenance as the process of inspecting and servicing a product or system on a regular basis in order for it to continue functioning properly, to extend its life, or to upgrade its capability.
02.10	Utilize controls and mechanisms or particular steps that people perform using information about the system that causes systems to change.

## CTE Standards and Benchmarks

03.0	Demonstrate an understanding of the relationships among technologies and the connection between technology and other fields of study.- -The student will be able to:
03.01	Modify the way technological systems interact with one another.
03.02	Apply a product, system, or environment developed for one setting in another setting.
03.03	Explain how knowledge gained from other fields of study has a direct effect on the development of technological products and systems.
04.0	Demonstrate an understanding of the cultural, social, economic, and political effects of technology.--The student will be able to:
04.01	Identify the ways that use of technology affects humans, including their safety, comfort, choices, and attitudes about technology's development and use.
04.02	Explain that technology, by itself, is neither good nor bad; but decisions about the use of products and systems can result in desirable or undesirable consequences.
04.03	Identify ethical issues associated with the development and use of technology.
04.04	Identify the economic, political, and cultural issues that are influenced by the development and use of technology.
05.0	Demonstrate an understanding of the effects of technology on the environment.--The student will be able to:
05.01	Describe the management of waste produced by technological systems as an important societal issue.
05.02	Describe how technologies can be used to repair damage caused by natural disasters and to break down waste from the use of various products and systems.
05.03	Make decisions about the development and use of technologies that put environmental and economic concerns in direct competition with one another.
06.0	Demonstrate an understanding of the role of society in the development and use of technology.--The student will be able to:
06.01	Describe the development of technologies that has resulted from the demands, values, and interests of individuals, businesses, industries, and societies.
06.02	Describe changes in society and the creation of new needs and wants caused by the use of inventions and innovations.
06.03	Understand social and cultural priorities and values that are reflected in technological devices.
06.04	Explain how meeting societal expectations is the driving force behind the acceptance and use of products and systems.
07.0	Demonstrate an understanding of the influence of technology on history.--The student will be able to:
07.01	Identify inventions and innovations that have evolved by using slow and methodical processes of tests and refinements.
07.02	Explain how the specialization of function has been at the heart of many technological improvements.
07.03	Identify the design and construction of structures for service or convenience evolving from the development of techniques for measurement, controlling systems, and the understanding of spatial relationships.
07.04	Investigate how, that in the past, an invention or innovation was not usually developed with the knowledge of science.
08.0	Demonstrate an understanding of the attributes of design.--The student will be able to:



## CTE Standards and Benchmarks

08.01	Use design as a creative planning process that leads to useful products and systems.
08.02	Explain why there is no perfect design.
08.03	Evaluate criteria and constraints that are requirements for a design.
09.0	Demonstrate an understanding of engineering design.--The student will be able to:
09.01	Utilize the design process involving a set of steps, which can be performed in different sequences and repeated as needed.
09.02	Employ brainstorming as a group problem-solving design process in which each person in the group presents his or her ideas in an open forum.
09.03	Model, test, evaluate and modify designs to transform ideas into practical solutions.
10.0	Demonstrate an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.--The student will be able to:
10.01	Use troubleshooting as a problem-solving method used to identify the cause of a malfunction in a technological system.
10.02	Describe invention as a process of turning ideas and imagination into devices and systems and innovation as the process of modifying an existing product or system to improve it.
10.03	Identify technological problems that are best solved through experimentation.
11.0	Demonstrate the abilities to apply the design process.--The student will be able to:
11.01	Apply a design process to solve problems in and beyond the laboratory-classroom.
11.02	Specify criteria and constraints for the design.
11.03	Make two-dimensional and three-dimensional representations of the designed solution.
11.04	Test and evaluate the design in relation to pre-established requirements, such as criteria and constraints, and refine as needed.
11.05	Make a product or system and document the solution.
12.0	Demonstrate the abilities to use and maintain technological products and systems.--The student will be able to:
12.01	Use information provided in manuals, protocols, or by experienced people to see and understand how things work.
12.02	Use tools, materials, and machines safely to diagnose, adjust, and repair systems.
12.03	Use computers and calculators in various applications.
12.04	Operate and maintain systems in order to achieve a given purpose.
13.0	Demonstrate the abilities to assess the impact of products and systems.--The student will be able to:
13.01	Design and use instruments to gather data.
13.02	Use data collected to analyze and interpret trends in order to identify the positive or negative effects of a technology.
13.03	Identify trends and monitor potential consequences of technological development.

## CTE Standards and Benchmarks

13.04	Interpret and evaluate the accuracy of the information obtained and determine if it is useful.
21.0	Demonstrate proper and safe procedures while working with technological tools, apparatus, equipment, systems, and materials.--The student will be able to:
21.01	Follow laboratory safety rules and procedures.
21.02	Demonstrate good housekeeping at workstations within a total laboratory.
21.03	Conduct laboratory activities and equipment operations in a safe manner.
21.04	Identify tools, machines, materials and equipment and describe their functions.
21.05	Select appropriate tools, machines, and equipment to accomplish a given task.
21.06	Demonstrate safe and correct use of tools, machines, and equipment.
21.07	Identify color-coding safety standards.
21.08	Explain fire prevention and safety precautions and practices for extinguishing fires.
21.09	Identify harmful effects/potential dangers of familiar hazardous substances/devices to people and the environment.
21.10	Identify the factors that determine the severity of electrical shock.
21.11	Identify lifesaving safety equipment such as ground fault circuit interrupters (GFCI), proper grounding.
21.12	Identify protective equipment such as circuit breakers, fuses, surge protection, and uninterruptable power supplies.
21.13	Compare the characteristics and applications of different types of batteries. (Lithium, NiCad, Alkaline, etc.)
21.14	Explain ways in which batteries are rated and tested.
22.0	Exhibit positive human relations and leadership skills.--The student will be able to:
22.01	Perform roles in a student personnel system or in a career and technical student organization (CTSO).
22.02	Work cooperatively with others.
23.0	Discuss individual interests, aptitudes, and opportunities as they relate to a career.--The student will be able to:
23.01	Identify individual strengths and weaknesses.
23.02	Discuss individual interests related to a career.
23.03	List occupations, job requirements, and job opportunities in electronics technology
23.04	List academic and career programs at the secondary levels in electronics technology.
60.0	Demonstrate an understanding of the nature of electricity.--The student will be able to:
60.01	Identify parts of an atom.
60.02	Describe how the interaction of charged particles in the atom creates electron flow.

## CTE Standards and Benchmarks

60.03	Evaluate whether a material is a conductor, insulator, or semiconductor based upon its number of valence electrons and its position on the periodic table.
60.04	Explain the difference between current, voltage and resistance.
60.05	Describe the properties of a magnet including polarity.
60.06	Identify the primary parts of a DC motor and demonstrate how it functions.
60.07	Identify the primary parts of a generator and demonstrate how it functions.
60.08	Compare and contrast the characteristics of a basic motor and generator.
60.09	Describe the composition of elements, mixtures, and compounds according to the electron theory.
60.10	Diagram and show the relationship between electrons, protons, and neutrons.
60.11	State the law of electrical charges.
60.12	Define electrical quantities (voltage, current, resistance, etc.).
60.13	Define units of measure including milli, micro, mega, and kilo.
61.0	Explore the basics of electric circuits.--The student will be able to:
61.01	Identify the characteristics of series, parallel, and combination electrical circuits.
61.02	Sketch circuit diagrams using standardized schematic symbols.
61.03	Construct physical electrical circuits based upon circuit diagrams.
61.04	Measure voltage, current, and resistance using a multimeter.
61.05	Mathematically calculate voltage, current, and resistance using Ohm's law.
61.06	Integrate DC sources, lamps, switches, diodes, light emitting diodes, resistors, and capacitors into electrical circuits to achieve specific functions.
61.07	Determine the value of a fixed resistor based upon the color codes on those resistors.
62.0	Investigate digital signals and basic digital components.--The student will be able to:
62.01	Identify the relationship between the binary number system and the decimal number system and convert binary numbers to decimal.
62.02	Describe the functions of NOT, AND, OR, NAND, NOR, and XOR gates.
62.03	Create truth tables for logic scenarios and match those gates to truth tables.
62.04	Create a digital wave form and graph it for a binary sequence.
62.05	Determine the logic, sensors, gates, outputs, and other components needed to emulate existing electronic devices that utilize logic.
63.0	Demonstrate and apply proper use of electronic equipment.--The student will be able to:

## CTE Standards and Benchmarks

63.01	Use a digital or analog volt-ohm meter (VOM) to obtain accurate measurements.
63.02	Apply safety rules in the use of electronic instruments and demonstrate proper care and maintenance for the equipment during storage and use.
63.03	Use voltmeters, ammeters, and ohmmeters to obtain accurate measurements.
63.04	Set up and use an oscilloscope to observe waveforms and to determine the voltage of the signal presented.
63.05	Use signal generators to produce waveforms of selected frequencies and shapes.
63.06	Use testers to determine the condition of electronic components.
64.0	Demonstrate proper electronic assembly methods.--The student will be able to:
64.01	Exhibit safe soldering techniques.
64.02	Identify proper soldering practices.
64.03	Demonstrate proper soldering applications.
64.04	Identify common electrical and electronics hand tools.
64.05	Demonstrate electronic component assembly.
64.06	Apply electrical tape to a spliced and soldered wire connection.
64.07	Solder and de-solder components and wires.
64.08	Describe the two methods of making a printed circuit board.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Exploration of Maritime Technology  
**Course Number:** 8600092  
**Course Length:** Semester  
**Teacher Certification:** Refer to the Program Structure section

**Course Description:**

The purpose of this course is to give students an opportunity to explore the area of maritime technology and its associated careers. Students will be given the opportunity to solve technological problems using a variety of tools, materials, processes and systems while gaining an understanding of the effects of maritime technology on our everyday lives.

<b>CTE Standards and Benchmarks</b>	
<b>01.0</b>	Demonstrate an understanding of the characteristics and scope of technology.--The student will be able to:
01.01	Develop new products and systems to solve problems or to help do things that could not be done without the help of technology.
01.02	Describe the development of technology as a human activity that is the result of individual or collective needs and the ability to be creative.
01.03	Explain how technology is closely linked with creativity, which has resulted in innovation.
01.04	Demonstrate how corporations can often create demand for a product by bringing it onto the market and advertising it.
<b>02.0</b>	Demonstrate an understanding of the core concepts of technology.--The student will be able to:
02.01	Describe technological systems including input, processes, output, and, at times, feedback.
02.02	Apply systems thinking, involving considering how every part relates to others.
02.03	Identify control systems having no feedback path and requiring human intervention, and control systems using feedback.
02.04	Explain how technological systems can be connected to one another.
02.05	Repair malfunctions of any part of a system that may affect the function and quality of the system.
02.06	Compare and contrast requirements or parameters placed on the development of a product or system.
02.07	Compare and contrast trade-offs as a decision process recognizing the need for careful compromises among competing factors.
02.08	Describe different technologies that involve different sets of processes.
02.09	Perform basic maintenance as the process of inspecting and servicing a product or system on a regular basis in order for it to continue functioning properly, to extend its life, or to upgrade its capability.
02.10	Utilize controls and mechanisms or particular steps that people perform using information about the system that causes systems to change.

## CTE Standards and Benchmarks

03.0	Demonstrate an understanding of the relationships among technologies and the connection between technology and other fields of study.- -The student will be able to:
03.01	Modify the way technological systems interact with one another.
03.02	Apply a product, system, or environment developed for one setting in another setting.
03.03	Explain how knowledge gained from other fields of study has a direct effect on the development of technological products and systems.
04.0	Demonstrate an understanding of the cultural, social, economic, and political effects of technology.--The student will be able to:
04.01	Identify the ways that use of technology affects humans, including their safety, comfort, choices, and attitudes about technology's development and use.
04.02	Explain that technology, by itself, is neither good nor bad; but decisions about the use of products and systems can result in desirable or undesirable consequences.
04.03	Identify ethical issues associated with the development and use of technology.
04.04	Identify the economic, political, and cultural issues that are influenced by the development and use of technology.
05.0	Demonstrate an understanding of the effects of technology on the environment.--The student will be able to:
05.01	Describe the management of waste produced by technological systems as an important societal issue.
05.02	Describe how technologies can be used to repair damage caused by natural disasters and to break down waste from the use of various products and systems.
05.03	Make decisions about the development and use of technologies that put environmental and economic concerns in direct competition with one another.
06.0	Demonstrate an understanding of the role of society in the development and use of technology.--The student will be able to:
06.01	Describe the development of technologies that has resulted from the demands, values, and interests of individuals, businesses, industries, and societies.
06.02	Describe changes in society and the creation of new needs and wants caused by the use of inventions and innovations.
06.03	Understand social and cultural priorities and values that are reflected in technological devices.
06.04	Explain how meeting societal expectations is the driving force behind the acceptance and use of products and systems.
07.0	Demonstrate an understanding of the influence of technology on history.--The student will be able to:
07.01	Identify inventions and innovations that have evolved by using slow and methodical processes of tests and refinements.
07.02	Explain how the specialization of function has been at the heart of many technological improvements.
07.03	Identify the design and construction of structures for service or convenience evolving from the development of techniques for measurement, controlling systems, and the understanding of spatial relationships.
07.04	Investigate how, that in the past, an invention or innovation was not usually developed with the knowledge of science.
08.0	Demonstrate an understanding of the attributes of design.--The student will be able to:

## CTE Standards and Benchmarks

08.01	Use design as a creative planning process that leads to useful products and systems.
08.02	Explain why there is no perfect design.
08.03	Evaluate criteria and constraints that are requirements for a design.
09.0	Demonstrate an understanding of engineering design.--The student will be able to:
09.01	Utilize the design process involving a set of steps, which can be performed in different sequences and repeated as needed.
09.02	Employ brainstorming as a group problem-solving design process in which each person in the group presents his or her ideas in an open forum.
09.03	Model, test, evaluate and modify designs to transform ideas into practical solutions.
10.0	Demonstrate an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.--The student will be able to:
10.01	Use troubleshooting as a problem-solving method used to identify the cause of a malfunction in a technological system.
10.02	Describe invention as a process of turning ideas and imagination into devices and systems and innovation as the process of modifying an existing product or system to improve it.
10.03	Identify technological problems that are best solved through experimentation.
11.0	Demonstrate the abilities to apply the design process.--The student will be able to:
11.01	Apply a design process to solve problems in and beyond the laboratory-classroom.
11.02	Specify criteria and constraints for the design.
11.03	Make two-dimensional and three-dimensional representations of the designed solution.
11.04	Test and evaluate the design in relation to pre-established requirements, such as criteria and constraints, and refine as needed.
11.05	Make a product or system and document the solution.
12.0	Demonstrate the abilities to use and maintain technological products and systems.--The student will be able to:
12.01	Use information provided in manuals, protocols, or by experienced people to see and understand how things work.
12.02	Use tools, materials, and machines safely to diagnose, adjust, and repair systems.
12.03	Use computers and calculators in various applications.
12.04	Operate and maintain systems in order to achieve a given purpose.
13.0	Demonstrate the abilities to assess the impact of products and systems.--The student will be able to:
13.01	Design and use instruments to gather data.
13.02	Use data collected to analyze and interpret trends in order to identify the positive or negative effects of a technology.
13.03	Identify trends and monitor potential consequences of technological development.

## CTE Standards and Benchmarks

13.04	Interpret and evaluate the accuracy of the information obtained and determine if it is useful.
21.0	Demonstrate proper and safe procedures while working with technological tools, apparatus, equipment, systems, and materials.--The student will be able to:
21.01	Follow classroom/laboratory safety rules and procedures.
21.02	Demonstrate good housekeeping at workstations within a classroom/laboratory.
21.03	Conduct classroom/laboratory activities and equipment operations in a safe manner.
21.04	Exercise care and respect for all tools, equipment, and materials.
21.05	Select appropriate tools, machines, and equipment to accomplish a given task.
21.06	Identify color-coding safety standards.
21.07	Safely use hand tools and power equipment.
21.08	Explain fire prevention and safety precautions and practices for extinguishing fires.
21.09	Identify harmful effects/potential dangers of familiar hazardous substances/devices to people and the environment.
22.0	Exhibit positive human relations and leadership skills.--The student will be able to:
22.01	Perform roles in a student personnel system or in a career and technical student organization (CTSO).
22.02	Work cooperatively with others.
23.0	Discuss individual interests, aptitudes, and opportunities as they relate to a career.--The student will be able to:
23.01	Identify individual strengths and weaknesses.
23.02	Discuss individual interests related to a career.
23.03	List occupations, job requirements, and job opportunities in maritime technology
23.04	List academic and career programs at the secondary levels in maritime technology.
65.0	Demonstrate knowledge relating to the historical origins of the maritime industry from vessel development, cultural, and trade perspectives.--The student will be able to:
65.01	Identify different types of ships and their origins.
65.02	Create a timeline showing significant milestones in maritime history.
65.03	Describe the significance of the Phoenicians, Vikings, and Asians on maritime cultures and traditions.
65.04	Identify changes in sea going trade over the centuries.
65.05	Describe the effect of trade on colonialism and the developing world.
66.0	Demonstrate proficiency in understanding the various career paths in the maritime industry.--The student will be able to:
66.01	Identify important factors to choosing a career.



## CTE Standards and Benchmarks

66.02	Explain the importance of planning for a career.
66.03	Evaluate the impact of education on long term career success.
66.04	Research and investigate career paths in the maritime industry.
66.05	Describe the skills and personal qualities needed for maritime careers.
66.06	Describe the everyday life of people working in maritime careers.
66.07	Describe the future growth trends of maritime careers.
66.08	Create a personal maritime career path based on interest.
67.0	Demonstrate an understanding of required skills sets by mariners including, safety training, regulations, and leadership.--The student will be able to:
67.01	Create a timeline explaining the evolution of the U.S. Coast Guard.
67.02	Explain the main functions of the U.S. Coast Guard.
67.03	Describe the U.S. Coast Guard and its place in the U.S. military.
67.04	Describe the organization and leadership hierarchy on a vessel.
67.05	Explain Master's Level of Authority.
67.06	Describe the importance of leadership and chain-of-command on a vessel.
67.07	Use seamanship skills to tie knots, identify equipment, and practice safe work methods.
67.08	Describe the process of watch keeping, navigation, boat handling, anchoring, and mooring.
67.09	Use seamanship terminology.
68.0	Demonstrate proficiency in using engineering methods for ship construction and design.--The student will be able to:
68.01	Identify and describe various types of marine engines.
68.02	Explain the phenomenon of wind generation.
68.03	Explain how wind has been used to propel ships.
68.04	Describe the process and instrumentation for measuring and calculating wind power.
68.05	Describe the principles of buoyancy.
68.06	Explain the relationship between weight, volume, and density.
68.07	Explain Archimedes Principal.
68.08	Explain how a ship made of steel is able to float.
68.09	Construct a model vessel from material with a density greater than 1 and ensure it floats.

## CTE Standards and Benchmarks

68.10	Use the engineering process to create solutions for a maritime related problem.
68.11	Work in teams to using the engineering process to create solutions for a maritime problem.
69.0	Identify and explain various vessels and their and their use.--The student will be able to:
69.01	Identify various types of ships.
69.02	Explain specific reasons for different types of ships.
69.03	Describe different types of cargo vessels and cargo types.
69.04	Describe different types of passenger vessels and their purpose
70.0	Evaluate the environmental impact of the maritime industry.--The student will be able to:
70.01	Explain the role of maritime in protection of the environment.
70.02	Describe the environmental regulations on the maritime industry.
71.0	Examine the potential and use of marine resources.--The student will be able to:
71.01	Identify various energy sources related to the marine environment.
71.02	Describe how solar energy can be used to provide power for ships.
71.03	Provide three examples of solar power use in the maritime industry.
71.04	Explain how power could be generated from currents.
71.05	Describe how energy can be created from tidal movements and what technology is used to perform this function.
72.0	Demonstrate an understanding of oceanography concepts.--The student will be able to:
72.01	Explain oceanography's role as a marine science discipline and its areas of investigation.
72.02	Explain how ocean currents form and their role in distribution of heat.
72.03	Describe the various types of tides and why they are monitored throughout the maritime industry.
72.04	Evaluate the difference between tides, currents, and waves.
72.05	Compare the El Nino and La Nina events and their impact on weather.
72.06	Identify various ways wave energy is created and how it moves through the ocean.
72.07	Apply mathematics to waves to solve for wave height and wave length.
72.08	Explain the Coriolis Effect.
72.09	Describe the theory of global warming and how humans have contributed to associated maritime events.
73.0	Demonstrate an understanding of the fundamentals of marine biology.--The student will be able to:

**CTE Standards and Benchmarks**

73.01 Describe how freshwater collects on the earth's surface and its relation to the oceans.

73.02 Explain the ecological importance of mangroves in water filtration and runoff.

73.03 Explain the role of mangroves in high energy events and environmental concerns for their removal.

73.04 Identify and explain the importance of estuaries.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Exploration of Logistics and Supply Chain Technology  
**Course Number:** 8600093  
**Course Length:** Semester  
**Teacher Certification:** Refer to the Program Structure section

**Course Description:**

The purpose of this course is to give students an opportunity to explore the area of logistics and supply chain technology and its associated careers. Students will be given the opportunity to solve technological problems using a variety of tools, materials, processes and systems while gaining an understanding of the effects of logistics and supply chain technology on our everyday lives.

<b>CTE Standards and Benchmarks</b>	
<b>01.0</b>	Demonstrate an understanding of the characteristics and scope of technology.--The student will be able to:
01.01	Develop new products and systems to solve problems or to help do things that could not be done without the help of technology.
01.02	Describe the development of technology as a human activity that is the result of individual or collective needs and the ability to be creative.
01.03	Explain how technology is closely linked with creativity, which has resulted in innovation.
01.04	Demonstrate how corporations can often create demand for a product by bringing it onto the market and advertising it.
<b>02.0</b>	Demonstrate an understanding of the core concepts of technology.--The student will be able to:
02.01	Describe technological systems including input, processes, output, and, at times, feedback.
02.02	Apply systems thinking, involving considering how every part relates to others.
02.03	Identify control systems having no feedback path and requiring human intervention, and control systems using feedback.
02.04	Explain how technological systems can be connected to one another.
02.05	Repair malfunctions of any part of a system that may affect the function and quality of the system.
02.06	Compare and contrast requirements or parameters placed on the development of a product or system.
02.07	Compare and contrast trade-offs as a decision process recognizing the need for careful compromises among competing factors.
02.08	Describe different technologies that involve different sets of processes.
02.09	Perform basic maintenance as the process of inspecting and servicing a product or system on a regular basis in order for it to continue functioning properly, to extend its life, or to upgrade its capability.
02.10	Utilize controls and mechanisms or particular steps that people perform using information about the system that causes systems to change.

## CTE Standards and Benchmarks

03.0	Demonstrate an understanding of the relationships among technologies and the connection between technology and other fields of study.- -The student will be able to:
03.01	Modify the way technological systems interact with one another.
03.02	Apply a product, system, or environment developed for one setting in another setting.
03.03	Explain how knowledge gained from other fields of study has a direct effect on the development of technological products and systems.
04.0	Demonstrate an understanding of the cultural, social, economic, and political effects of technology.--The student will be able to:
04.01	Identify the ways that use of technology affects humans, including their safety, comfort, choices, and attitudes about technology's development and use.
04.02	Explain that technology, by itself, is neither good nor bad; but decisions about the use of products and systems can result in desirable or undesirable consequences.
04.03	Identify ethical issues associated with the development and use of technology.
04.04	Identify the economic, political, and cultural issues that are influenced by the development and use of technology.
05.0	Demonstrate an understanding of the effects of technology on the environment.--The student will be able to:
05.01	Describe the management of waste produced by technological systems as an important societal issue.
05.02	Describe how technologies can be used to repair damage caused by natural disasters and to break down waste from the use of various products and systems.
05.03	Make decisions about the development and use of technologies that put environmental and economic concerns in direct competition with one another.
06.0	Demonstrate an understanding of the role of society in the development and use of technology.--The student will be able to:
06.01	Describe the development of technologies that has resulted from the demands, values, and interests of individuals, businesses, industries, and societies.
06.02	Describe changes in society and the creation of new needs and wants caused by the use of inventions and innovations.
06.03	Understand social and cultural priorities and values that are reflected in technological devices.
06.04	Explain how meeting societal expectations is the driving force behind the acceptance and use of products and systems.
07.0	Demonstrate an understanding of the influence of technology on history.--The student will be able to:
07.01	Identify inventions and innovations that have evolved by using slow and methodical processes of tests and refinements.
07.02	Explain how the specialization of function has been at the heart of many technological improvements.
07.03	Identify the design and construction of structures for service or convenience evolving from the development of techniques for measurement, controlling systems, and the understanding of spatial relationships.
07.04	Investigate how, that in the past, an invention or innovation was not usually developed with the knowledge of science.
08.0	Demonstrate an understanding of the attributes of design.--The student will be able to:

## CTE Standards and Benchmarks

08.01	Use design as a creative planning process that leads to useful products and systems.
08.02	Explain why there is no perfect design.
08.03	Evaluate criteria and constraints that are requirements for a design.
09.0	Demonstrate an understanding of engineering design.--The student will be able to:
09.01	Utilize the design process involving a set of steps, which can be performed in different sequences and repeated as needed.
09.02	Employ brainstorming as a group problem-solving design process in which each person in the group presents his or her ideas in an open forum.
09.03	Model, test, evaluate and modify designs to transform ideas into practical solutions.
10.0	Demonstrate an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.--The student will be able to:
10.01	Use troubleshooting as a problem-solving method used to identify the cause of a malfunction in a technological system.
10.02	Describe invention as a process of turning ideas and imagination into devices and systems and innovation as the process of modifying an existing product or system to improve it.
10.03	Identify technological problems that are best solved through experimentation.
11.0	Demonstrate the abilities to apply the design process.--The student will be able to:
11.01	Apply a design process to solve problems in and beyond the laboratory-classroom.
11.02	Specify criteria and constraints for the design.
11.03	Make two-dimensional and three-dimensional representations of the designed solution.
11.04	Test and evaluate the design in relation to pre-established requirements, such as criteria and constraints, and refine as needed.
11.05	Make a product or system and document the solution.
12.0	Demonstrate the abilities to use and maintain technological products and systems.--The student will be able to:
12.01	Use information provided in manuals, protocols, or by experienced people to see and understand how things work.
12.02	Use tools, materials, and machines safely to diagnose, adjust, and repair systems.
12.03	Use computers and calculators in various applications.
12.04	Operate and maintain systems in order to achieve a given purpose.
13.0	Demonstrate the abilities to assess the impact of products and systems.--The student will be able to:
13.01	Design and use instruments to gather data.
13.02	Use data collected to analyze and interpret trends in order to identify the positive or negative effects of a technology.
13.03	Identify trends and monitor potential consequences of technological development.

## CTE Standards and Benchmarks

13.04	Interpret and evaluate the accuracy of the information obtained and determine if it is useful.
21.0	Demonstrate proper and safe procedures while working with technological tools, apparatus, equipment, systems, and materials.--The student will be able to:
21.01	Follow classroom/laboratory safety rules and procedures.
21.02	Demonstrate good housekeeping at workstations within a classroom/laboratory.
21.03	Conduct classroom/laboratory activities and equipment operations in a safe manner.
21.04	Exercise care and respect for all tools, equipment, and materials.
21.05	Select appropriate tools, machines, and equipment to accomplish a given task.
21.06	Identify color-coding safety standards.
21.07	Safely use hand tools and power equipment.
21.08	Explain fire prevention and safety precautions and practices for extinguishing fires.
21.09	Identify harmful effects/potential dangers of familiar hazardous substances/devices to people and the environment.
22.0	Exhibit positive human relations and leadership skills.--The student will be able to:
22.01	Perform roles in a student personnel system or in a career and technical student organization (CTSO).
22.02	Work cooperatively with others.
23.0	Discuss individual interests, aptitudes, and opportunities as they relate to a career.--The student will be able to:
23.01	Identify individual strengths and weaknesses.
23.02	Discuss individual interests related to a career.
23.03	List occupations, job requirements, and job opportunities in logistics and supply chain technology
23.04	List academic and career programs at the secondary levels in logistics and supply chain technology.
74.0	Demonstrate an understanding of global logistics and supply chain.--The student will be able to:
74.01	Discuss the history, career fields, and benefits of the global supply chain industry.
74.02	Describe principal elements of the logistics environment and logistics systems.
74.03	Explore career pathways within global logistics and supply chain.
74.04	Explain ways in which handling of product throughout supply chain logistics affects company's viability and profitability.
74.05	Define basic principles of just-in-time purchasing and inventory control.
74.06	Identify major security requirements applicable to the logistics environment.
74.07	Cite examples of environmental and financial impacts of logistics activities.

## CTE Standards and Benchmarks

75.0 Demonstrate an understanding of transportation systems.--The student will be able to:

75.01 Identify various transportation modes.

75.02 Describe and contrast the different modes of transportation and their advantages/disadvantages.

75.03 List the main considerations in determining the best mode.

75.04 Describe and assess global freight transportation systems.

76.0 Demonstrate professional communication skills.--The student will be able to:

76.01 Identify effective communications to both internal and external customers.

76.02 Identify ways to elicit clear statements of customer requirements and specifications.

76.03 Demonstrate an understanding of teamwork and good professional workplace behavior to solve problems.

76.04 List characteristics of an effective team member.

76.05 Explain ways to set team goals.

76.06 Identify use of team environment to solve problems and resolve conflicts.

76.07 Describe typical requirements for good workplace conduct.

77.0 Demonstrate customer service skills.--The student will be able to:

77.01 Exhibit acceptable workplace dress or attire.

77.02 Exhibit punctuality, initiative, courtesy, loyalty, and honesty.

77.03 Use a personality inventory for personal improvement.

77.04 Exhibit the ability to get along with others.

77.05 Discuss the importance of human relations.

77.06 Develop and demonstrate the unique human relations skills needed for successful entry and progress in the customer service occupations or marketing occupations selected as a career objective.

77.07 Differentiate between an acceptable and an unacceptable code of business ethical conduct.

78.0 Demonstrate an understanding of warehouse operations.--The student will be able to:

78.01 Identify and discuss the characteristics, purpose and importance of warehouse operations and supply chain management.

78.02 Define material handling logistics as it applies to the warehousing function.

78.03 Define "logical" in terms of the term logistics.

78.04 Define movement in a warehouse and identify the various locations within the warehouse where planned efficient movement of materials takes place.

78.05 Explain channels of distribution.



## CTE Standards and Benchmarks

78.06	Discuss safety regulatory requirements and procedures.
78.07	Identify various types of equipment available to enhance the efficient movement of materials within a warehouse.
78.08	Identify the various types of loading docks and cross docking.
78.09	Define the term "peaks and valleys" as it applies to warehouse activity.
78.10	Explain the importance of staging and JIT.
78.11	Identify the primary types of hand-operated pieces of warehouse equipment.
78.12	Explain the concept of "balancing" as it applies to counterbalanced lift trucks.
78.13	Identify warehouse documents (e.g., pick tickets, special orders, inventory forms).
79.0	Demonstrate an understanding of storage and control operations.--The student will be able to:
79.01	Explain the concepts involved in determining the best method for storage and the equipment needed to facilitate a cost effective and efficient warehouse.
79.02	Identify the factors that are involved with the calculating and estimating of the storage area needed for retention of materials in a warehouse.
79.03	Define the following storage related terms: Size, Volume, Density, Pallet, and Case.
79.04	Define the terms packaging, SKU, stacking frame, term "Logistics Execution Systems" (LES), signage and signposting, "real time" and barcoding.
79.05	Explain how the volume of materials, space usage, and control affect the design of storage space in a warehouse design.
79.06	Explain inventories and their importance.
79.07	Identify and analyze various warehouse storage systems.
79.08	Identify the basic configuration for pallet rack.
79.09	Identify the various types of technologies developed over the years to keep track of goods within the warehouse.
79.10	Define the components of an LES.
79.11	Define radio frequency identification (RFID).
79.12	Explain the importance of automation in warehousing.
79.13	Identify the value of emerging technologies related to warehouse operations.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Exploration of Green Construction and Architecture Technology  
**Course Number:** 8600094  
**Course Length:** Semester  
**Teacher Certification:** Refer to the Program Structure section

**Course Description:**

The purpose of this course is to give students an opportunity to explore the area of green construction and architecture technology and its associated careers. Students will be given the opportunity to solve technological problems using a variety of tools, materials, processes and systems while gaining an understanding of the effects of green construction and architecture technology on our everyday lives.

<b>CTE Standards and Benchmarks</b>	
<b>01.0</b>	Demonstrate an understanding of the characteristics and scope of technology.--The student will be able to:
01.01	Develop new products and systems to solve problems or to help do things that could not be done without the help of technology.
01.02	Describe the development of technology as a human activity that is the result of individual or collective needs and the ability to be creative.
01.03	Explain how technology is closely linked with creativity, which has resulted in innovation.
01.04	Demonstrate how corporations can often create demand for a product by bringing it onto the market and advertising it.
<b>02.0</b>	Demonstrate an understanding of the core concepts of technology.--The student will be able to:
02.01	Describe technological systems including input, processes, output, and, at times, feedback.
02.02	Apply systems thinking, involving considering how every part relates to others.
02.03	Identify control systems having no feedback path and requiring human intervention, and control systems using feedback.
02.04	Explain how technological systems can be connected to one another.
02.05	Repair malfunctions of any part of a system that may affect the function and quality of the system.
02.06	Compare and contrast requirements or parameters placed on the development of a product or system.
02.07	Compare and contrast trade-offs as a decision process recognizing the need for careful compromises among competing factors.
02.08	Describe different technologies that involve different sets of processes.
02.09	Perform basic maintenance as the process of inspecting and servicing a product or system on a regular basis in order for it to continue functioning properly, to extend its life, or to upgrade its capability.
02.10	Utilize controls and mechanisms or particular steps that people perform using information about the system that causes systems to change.

## CTE Standards and Benchmarks

03.0	Demonstrate an understanding of the relationships among technologies and the connection between technology and other fields of study.- -The student will be able to:
03.01	Modify the way technological systems interact with one another.
03.02	Apply a product, system, or environment developed for one setting in another setting.
03.03	Explain how knowledge gained from other fields of study has a direct effect on the development of technological products and systems.
04.0	Demonstrate an understanding of the cultural, social, economic, and political effects of technology.--The student will be able to:
04.01	Identify the ways that use of technology affects humans, including their safety, comfort, choices, and attitudes about technology's development and use.
04.02	Explain that technology, by itself, is neither good nor bad; but decisions about the use of products and systems can result in desirable or undesirable consequences.
04.03	Identify ethical issues associated with the development and use of technology.
04.04	Identify the economic, political, and cultural issues that are influenced by the development and use of technology.
05.0	Demonstrate an understanding of the effects of technology on the environment.--The student will be able to:
05.01	Describe the management of waste produced by technological systems as an important societal issue.
05.02	Describe how technologies can be used to repair damage caused by natural disasters and to break down waste from the use of various products and systems.
05.03	Make decisions about the development and use of technologies that put environmental and economic concerns in direct competition with one another.
06.0	Demonstrate an understanding of the role of society in the development and use of technology.--The student will be able to:
06.01	Describe the development of technologies that has resulted from the demands, values, and interests of individuals, businesses, industries, and societies.
06.02	Describe changes in society and the creation of new needs and wants caused by the use of inventions and innovations.
06.03	Understand social and cultural priorities and values that are reflected in technological devices.
06.04	Explain how meeting societal expectations is the driving force behind the acceptance and use of products and systems.
07.0	Demonstrate an understanding of the influence of technology on history.--The student will be able to:
07.01	Identify inventions and innovations that have evolved by using slow and methodical processes of tests and refinements.
07.02	Explain how the specialization of function has been at the heart of many technological improvements.
07.03	Identify the design and construction of structures for service or convenience evolving from the development of techniques for measurement, controlling systems, and the understanding of spatial relationships.
07.04	Investigate how, that in the past, an invention or innovation was not usually developed with the knowledge of science.
08.0	Demonstrate an understanding of the attributes of design.--The student will be able to:

## CTE Standards and Benchmarks

08.01	Use design as a creative planning process that leads to useful products and systems.
08.02	Explain why there is no perfect design.
08.03	Evaluate criteria and constraints that are requirements for a design.
09.0	Demonstrate an understanding of engineering design.--The student will be able to:
09.01	Utilize the design process involving a set of steps, which can be performed in different sequences and repeated as needed.
09.02	Employ brainstorming as a group problem-solving design process in which each person in the group presents his or her ideas in an open forum.
09.03	Model, test, evaluate and modify designs to transform ideas into practical solutions.
10.0	Demonstrate an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.--The student will be able to:
10.01	Use troubleshooting as a problem-solving method used to identify the cause of a malfunction in a technological system.
10.02	Describe invention as a process of turning ideas and imagination into devices and systems and innovation as the process of modifying an existing product or system to improve it.
10.03	Identify technological problems that are best solved through experimentation.
11.0	Demonstrate the abilities to apply the design process.--The student will be able to:
11.01	Apply a design process to solve problems in and beyond the laboratory-classroom.
11.02	Specify criteria and constraints for the design.
11.03	Make two-dimensional and three-dimensional representations of the designed solution.
11.04	Test and evaluate the design in relation to pre-established requirements, such as criteria and constraints, and refine as needed.
11.05	Make a product or system and document the solution.
12.0	Demonstrate the abilities to use and maintain technological products and systems.--The student will be able to:
12.01	Use information provided in manuals, protocols, or by experienced people to see and understand how things work.
12.02	Use tools, materials, and machines safely to diagnose, adjust, and repair systems.
12.03	Use computers and calculators in various applications.
12.04	Operate and maintain systems in order to achieve a given purpose.
13.0	Demonstrate the abilities to assess the impact of products and systems.--The student will be able to:
13.01	Design and use instruments to gather data.
13.02	Use data collected to analyze and interpret trends in order to identify the positive or negative effects of a technology.
13.03	Identify trends and monitor potential consequences of technological development.

## CTE Standards and Benchmarks

13.04	Interpret and evaluate the accuracy of the information obtained and determine if it is useful.
21.0	Demonstrate proper and safe procedures while working with technological tools, apparatus, equipment, systems, and materials.--The student will be able to:
21.01	Follow classroom/laboratory safety rules and procedures.
21.02	Demonstrate good housekeeping at workstations within a classroom/laboratory.
21.03	Conduct classroom/laboratory activities and equipment operations in a safe manner.
21.04	Exercise care and respect for all tools, equipment, and materials.
21.05	Select appropriate tools, machines, and equipment to accomplish a given task.
21.06	Identify color-coding safety standards.
21.07	Safely use hand tools and power equipment.
21.08	Explain fire prevention and safety precautions and practices for extinguishing fires.
21.09	Identify harmful effects/potential dangers of familiar hazardous substances/devices to people and the environment.
22.0	Exhibit positive human relations and leadership skills.--The student will be able to:
22.01	Perform roles in a student personnel system or in a career and technical student organization (CTSO).
22.02	Work cooperatively with others.
23.0	Discuss individual interests, aptitudes, and opportunities as they relate to a career.--The student will be able to:
23.01	Identify individual strengths and weaknesses.
23.02	Discuss individual interests related to a career.
23.03	List occupations, job requirements, and job opportunities in green construction and architectural technology
23.04	List academic and career programs at the secondary levels in green construction and architectural technology.
80.0	Demonstrate an understanding of the built environment.--The student will be able to:
80.01	Research the development of construction technology, its impact on the built environment and the impact of growth on the construction industry.
80.02	Examine and compare the relationship between the built environment and the natural environment.
80.03	Compare architectural designs and/or models to understand how technical and functional components impact aesthetic qualities.
80.04	Analyze changes in architectural styles and construction practices over time.
80.05	Research innovative historical architectural and/or engineering works and examine the significance of their legacy for the future.
81.0	Demonstrate an understanding of the green environment.--The student will be able to:

## CTE Standards and Benchmarks

81.01	Recognize and analyze the development of the built environment and its impacts on the natural environment such as pollution, deforestation, climate change, health and disease.
81.02	Describe and give examples of how a green built environment creates growth for the construction industry, and the economy such as health and safety, transportation and natural resources.
81.03	Examine and compare the relationship between a green built environment and the natural environment.
81.04	Explain the purpose of the United States Green Building Council (USGBC), the Green Building Certification Institute (GBCI) and Leadership for Energy and Environmental Design (LEED) are and how they create growth for the construction industry and the economy.
81.05	Research sustainable building design and its relationship between health, energy efficiency and money savings for government, businesses and individuals.
81.06	Research the effects of building science on construction and energy efficiency.
81.07	Research renewable fuels and energy.
82.0	Use building laws and codes, style, convenience, cost, climate, and function to select building designs.--The student will be able to:
82.01	Identify the function and types of building foundations.
82.02	Identify the subsystems contained in buildings.
82.03	Summarize energy efficient building materials and processes.
83.0	Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.--The student will be able to:
83.01	Apply a systematic process to determine to meet the criteria and constraints of the problem.
83.02	Make two-dimensional and three-dimensional representations of the designed solution
83.03	Analyze data from tests to determine similarities and differences among several design solutions to identify the best characteristics of each that can be combined into a new solution to better meet the criteria for success.
83.04	Apply a design process to solve problems in or beyond the laboratory-classroom.
83.05	Summarize energy efficient building materials and processes.
83.06	Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved
84.0	Describe the human impact on the environment and identify ways to minimize environmental impacts.--The student will be able to:
84.01	Analyze and interpret data on natural hazards to forecast future catastrophic events and inform the development of technologies to mitigate their effects.
84.02	Construct an argument supported by evidence for how increases in human population and per capita consumption of natural resources impact Earth's systems.
84.03	Analyze recycling opportunities for building construction and materials.
84.04	Ask questions to clarify evidence of the factors that have caused the rise in global temperatures over the past century.

## CTE Standards and Benchmarks

85.0	Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions and accurately measure drawing dimensions.--The student will be able to:
85.01	Construct geometric figures including but not limited to triangles, squares, rectangles, and circles.
85.02	Solve real-world and mathematical problems involving area, volume, perimeter, and surface area of two- and three-dimensional objects composed of geometric figures including but not limited to triangles, quadrilaterals, polygons, cubes, and right prisms. Identify the subsystems contained in buildings.
85.03	Solve real-world and mathematical problems involving area, volume, perimeter, and surface area of two- and three-dimensional objects composed of geometric figures including but not limited to triangles, quadrilaterals, polygons, cubes, and right prisms.
85.04	Use a ruler and an architectural scale to measure and create drawings and produce scale drawings a building.

## Additional Information

### Laboratory Activities

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### Florida Standards for English Language Development (ELD)

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or

interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

The Florida Technology Student Association (FL-TSA) is the intercurricular career and technical student organization for providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.



**Florida Department of Education  
Curriculum Framework**

**Course Title:** Exploration of Production Technology and Career Planning\*  
**Course Type:** Orientation/Exploratory and Career Planning  
**Career Cluster:** Engineering & Technology Education

**Secondary – Middle School**

Course Number	8600042
CIP Number	08210122CE
Grade Level	6 – 8
Standard Length	Semester
Teacher Certification	Refer to the <b>Course Structure</b> section.
CTSO	FL-TSA

\*Effective July 1, 2017, there is no longer a promotion requirement for middle grades students to complete a Career and Education Planning course. However, these courses will continue to be available and should be taught integrating the eight career and education planning course standards. The MyCareerShines powered by Kuder® career planning system is available free of charge to all Florida middle and high schools to assist students in exploring career options and developing an academic and career plan.

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Engineering and Technology Education career cluster. The content includes but is not limited to providing the opportunity to solve technological problems using a variety of tools, materials, processes and systems while gaining an understanding of the effects of production technology on our everyday lives. Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

## Course Structure

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8600042	Exploration of Production Technology and Career Planning	AUTO PROD 7G BLDG CONST @7 7G BLDG MAINT @7 7G CARPENTRY @7 7G ENG 7G ENG TEC 7G METAL WORK 7G PLTW PTE 7G TEC CONSTR @7 7G TEC ED 1 @2 ENG&TEC ED1@2	Semester

## **Standards**

### **After successfully completing this program, the student will be able to perform the following:**

- 01.0 Demonstrate an understanding of the characteristics and scope of technology.
- 02.0 Demonstrate an understanding of the core concepts of technology.
- 03.0 Demonstrate an understanding of the relationships among technologies and the connection between technology and other fields of study.
- 04.0 Demonstrate an understanding of the cultural, social, economic, and political effects of technology.
- 05.0 Demonstrate an understanding of the effects of technology on the environment.
- 06.0 Demonstrate an understanding of the role of society in the development and use of technology.
- 07.0 Demonstrate an understanding of the influence of history on technology.
- 08.0 Demonstrate an understanding of the attributes of design.
- 09.0 Demonstrate an understanding of engineering design.
- 10.0 Demonstrate an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.
- 11.0 Demonstrate the abilities to apply the design process.
- 12.0 Demonstrate the abilities to use and maintain technological products and systems.
- 13.0 Demonstrate the abilities to assess the impact of products and systems.
- 14.0 Demonstrate an understanding of and be able to select and use manufacturing technologies.
- 15.0 Demonstrate proper and safe procedures while working with technological tools, apparatus, equipment, systems, and materials.
- 16.0 Exhibit positive human relations and leadership skills.
- 17.0 Discuss individual interests, aptitudes, and opportunities as they relate to a career.
- 18.0 Identify evolving technologies of production systems.
- 19.0 Perform special skills unique to manufacturing technology.
- 20.0 Express knowledge of factors that impact manufacturing technology and practices.

### **Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes.**

- 21.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.
- 22.0 Develop skills to locate, evaluate, and interpret career information.
- 23.0 Identify and demonstrate processes for making short and long term goals.
- 24.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
- 25.0 Understand the relationship between educational achievement and career choices/postsecondary options.
- 26.0 Identify a career cluster and related pathways through an interest assessment that match career and education goals.
- 27.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
- 28.0 Demonstrate knowledge of technology and its application in career fields/clusters.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Exploration of Production Technology and Career Planning  
**Course Number:** 8600042  
**Course Length:** Semester

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate an understanding of the characteristics and scope of technology.--The student will be able to:
01.01	Develop new products and systems to solve problems or to help do things that could not be done without the help of technology.
01.02	Describe the development of technology as a human activity that is the result of individual or collective needs and the ability to be creative.
01.03	Explain how technology is closely linked with creativity, which has resulted in innovation.
01.04	Demonstrate how corporations can often create demand for a product by bringing it onto the market and advertising it.
02.0	Demonstrate an understanding of the core concepts of technology.-- The student will be able to:
02.01	Describe technological systems including input, processes, output, and, at times, feedback.
02.02	Apply systems thinking, involving considering how every part relates to others.
02.03	Identify control systems having no feedback path and requiring human intervention, and control system using feedback.
02.04	Explain how technological systems can be connected to one another.
02.05	Repair malfunctions of any part of a system that may affect the function and quality of the system.
02.06	Compare and contrast requirements or parameters placed on the development of a product or system.
02.07	Compare and contrast trade-offs as a decision process recognizing the need for careful compromises among competing factors.
02.08	Perform basic maintenance as the process of inspecting and servicing a product or system on a regular basis in order for it to continue functioning properly, to extend its life, or to upgrade its capability.
02.09	Utilize controls and mechanisms or particular steps that people perform using information about the system that causes systems to change.
03.0	Demonstrate an understanding of the relationships among technologies and the connection between technology and other fields of study.- -The student will be able to:
03.01	Modify the way technological systems interact with one another.
03.02	Apply a product, system, or environment developed for one setting in another setting.

## CTE Standards and Benchmarks

03.03	Explain how knowledge gained from other fields of study has a direct effect on the development of technological products and systems.
04.0	Demonstrate an understanding of the cultural, social, economic, and political effects of technology.--The student will be able to:
04.01	Identify the ways that use of technology affects humans, including their safety, comfort, choices, and attitudes about technology's development and use.
04.02	Explain that technology, by itself, is neither good nor bad, but decisions about the use of products and systems can result in desirable or undesirable consequences.
04.03	Identify ethical issues associated with the development and use of technology.
04.04	Identify the economic, political, and cultural issues that are influenced by the development and use of technology.
05.0	Demonstrate an understanding of the effects of technology on the environment.--The student will be able to:
05.01	Describe the management of waste produced by technological systems as an important societal issue.
05.02	Describe how technologies can be used to repair damage caused by natural disasters and to break down waste from the use of various products and systems.
05.03	Make decisions about the development and use of technologies that put environmental and economic concerns in direct competition with one another.
06.0	Demonstrate an understanding of the role of society in the development and use of technology.--The student will be able to:
06.01	Describe the development of technologies that has resulted from the demands, values, and interests of individuals, businesses, industries, and societies.
06.02	Describe changes in society and the creation of new needs and wants caused by the use of inventions and innovations.
06.03	Understand social and cultural priorities and values that are reflected in technological devices.
06.04	Explain how meeting societal expectations is the driving force behind the acceptance and use of products and systems.
07.0	Demonstrate an understanding of the influence of history on technology.--The student will be able to:
07.01	Identify inventions and innovations that have evolved by using slow and methodical processes of tests and refinements.
07.02	Explain how the specialization of function has been at the heart of many technological improvements.
07.03	Identify the design and construction of structures for service or convenience evolving from the development of techniques for measurement, controlling systems, and the understanding of spatial relationships.
07.04	Explain that in the past, an invention or innovation was not usually developed with the knowledge of science.
08.0	Demonstrate an understanding of the attributes of design.--The student will be able to:
08.01	Use design as a creative planning process that leads to useful products and systems.

## CTE Standards and Benchmarks

08.02 Explain why there is no perfect design.

08.03 Evaluate criteria and constraints that are requirements for a design.

09.0 Demonstrate an understanding of engineering design.--The student will be able to:

09.01 Utilize the design process involving a set of steps, which can be performed in different sequences and repeated as needed.

09.02 Employ brainstorming as a group problem-solving design process in which each person in the group presents his or her ideas in an open forum.

09.03 Model, test, evaluate and modify designs to transform ideas into practical solutions.

10.0 Demonstrate an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.--The student will be able to:

10.01 Use troubleshooting as a problem-solving method used to identify the cause of a malfunction in a technological system.

10.02 Describe invention as a process of turning ideas and imagination into devices and systems and innovation as the process of modifying an existing product or system to improve it.

10.03 Identify technological problems that are best solved through experimentation.

11.0 Demonstrate the abilities to apply the design process.--The student will be able to:

11.01 Apply a design process to solve problems in and beyond the laboratory-classroom.

11.02 Specify criteria and constraints for the design.

11.03 Make two-dimensional and three-dimensional representations of the designed solution.

11.04 Test and evaluate the design in relation to pre-established requirements, such as criteria and constraints, and refine as needed.

11.05 Make a product or system and document the solution.

12.0 Demonstrate the abilities to use and maintain technological products and systems.--The student will be able to:

12.01 Use information provided in manuals, protocols, or by experienced people to see and understand how things work.

12.02 Use tools, materials, and machines safely to diagnose, adjust, and repair systems.

12.03 Use computers and calculators in various applications.

12.04 Operate and maintain systems in order to achieve a given purpose.

13.0 Demonstrate the abilities to assess the impact of products and systems.--The student will be able to:

## CTE Standards and Benchmarks

13.01	Design and use instruments to gather data.
13.02	Use data collected to analyze and interpret trends in order to identify the positive or negative effects of a technology.
13.03	Identify trends and monitor potential consequences of technological development.
13.04	Interpret and evaluate the accuracy of the information obtained and determine if it is useful.
14.0	Demonstrate an understanding of and be able to select and use manufacturing technologies.--The student will be able to:
14.01	Describe manufacturing systems using mechanical processes that change the form of materials through processes of separating, forming, combining, and conditioning them.
14.02	Classify manufactured goods as durable and non-durable.
14.03	Employ the manufacturing process including the designing, development, making, and servicing of products and systems.
14.04	Describe manufacturing technologies that are used to modify or alter manufactured products.
14.05	Explain that materials must first be located before they can be extracted from the earth through processes such as harvesting, drilling, and mining.
15.0	Demonstrate proper and safe procedures while working with technological tools, apparatus, equipment, systems, and materials.--The student will be able to:
15.01	Follow laboratory safety rules and procedures.
15.02	Demonstrate good housekeeping at workstations within a total laboratory.
15.03	Conduct laboratory activities and equipment operations in a safe manner.
15.04	Exercise care and respect for all tools, equipment, and materials.
15.05	Select appropriate tools, machines, and equipment to accomplish a given task.
15.06	Identify color-coding safety standards.
15.07	Safely use hand tools and power equipment.
15.08	Explain fire prevention and safety precautions and practices for extinguishing fires.
15.09	Identify harmful effects/potential dangers of familiar hazardous substances/devices to people and the environment.
16.0	Exhibit positive human relations and leadership skills.--The student will be able to:
16.01	Perform roles in a student personnel system or in the Florida Technology Student Association (FL-TSA).

## CTE Standards and Benchmarks

16.02 Work cooperatively with others.

17.0 Discuss individual interests, aptitudes, and opportunities as they relate to a career.--The student will be able to:

17.01 Identify individual strengths and weaknesses.

17.02 Discuss individual interests related to a career.

17.03 List occupations, job requirements, and job opportunities in production technology.

17.04 List occupational training programs and academic programs at the secondary/postsecondary levels in production technology.

18.0 Identify evolving technologies of production systems.--The student will be able to:

18.01 List evolving technologies of manufacturing and construction industries.

18.02 Discuss the evolution of technologies related to manufacturing systems and construction processes.

18.03 Brainstorm futuristic production systems.

19.0 Perform special skills unique to manufacturing technology.--The student will be able to:

19.01 Design a product for custom or mass production manufacturing.

19.02 Plan a mass production system for manufacturing a product.

19.03 Perform materials forming practices such as casting or molding, and compressing or stretching.

19.04 Perform materials separating practices such as shearing, chip removing, and other separating processes.

19.05 Perform materials conditioning practices such as heat treating, physical conditioning, or through chemical reactions.

19.06 Combine components through mixing, coating, bonding, and mechanical fastening.

19.07 Assemble a product or a subassembly of a product.

20.0 Express knowledge of factors that impact manufacturing technology and practices.--The student will be able to:

20.01 Explain economic factors that impact on manufacturing technology.

20.02 Research and identify consumer demands for a manufactured product.

20.03 Identify sources of raw materials and/or standard stock materials needed for a manufactured product.

20.04 Interview, hire, train, or promote an applicant or employee for a simulated mass production manufacturing activity.



## CTE Standards and Benchmarks

20.05 Define the terms "organized labor" and "collective bargaining."

20.06 Prepare a plan for marketing and distributing a manufactured product.

### **Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes.**

The student will be able to:

21.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.

22.0 Develop skills to locate, evaluate, and interpret career information.

23.0 Identify and demonstrate processes for making short and long term goals.

24.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.

25.0 Understand the relationship between educational achievement and career choices/postsecondary options.

26.0 Identify a career cluster and related pathways through an interest assessment that match career and education goals.

27.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.

28.0 Demonstrate knowledge of technology and its application in career fields/clusters.

## Additional Information

### Laboratory Activities

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### Florida Standards for English Language Development (ELD)

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### Special Notes

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### Career Planning

**Effective July 1, 2019, per Section 1003.4156, Florida Statutes (F.S.), for students to meet middle grades promotion requirements, a Career and Education Planning course must be completed in either sixth, seventh, or eighth grade.** These courses should be taught integrating the eight career and education planning course standards. The MyCareerShines powered by Kuder® career planning system is available free of charge to all Florida middle and high schools to assist students in completing research-based career assessments, exploring career options and developing an online academic and career plan.

### Career and Technical Student Organization (CTSO)

The Florida Technology Student Association (FL-TSA) is the intercurricular career and technical student organization for providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

## **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Course Title:** Exploring Technology and Career Planning\*  
**Course Type:** Orientation/Exploratory and Career Planning  
**Career Cluster:** Engineering & Technology Education

**Secondary – Middle School**

Course Number	8600220
CIP Number	08210122CP
Grade Level	6 – 8
Standard Length	Semester
Teacher Certification	Refer to the <b>Course Structure</b> section
CTSO	FL-TSA

\*Effective July 1, 2017, there is no longer a promotion requirement for middle grades students to complete a Career and Education Planning course. However, these courses will continue to be available and should be taught integrating the eight career and education planning course standards. The MyCareerShines powered by Kuder® career planning system is available free of charge to all Florida middle and high schools to assist students in exploring career options and developing an academic and career plan.

**Purpose**

The purpose of this course is to give students an opportunity to explore the area of production technology and its associated careers. Course requirements are consistent with 8600020 Exploring Technology with the addition of the career and education planning course requirements. Students will be given the opportunity to solve technological problems using a variety of tools, materials, processes and systems while gaining an understanding of the effects of production technology on our everyday lives.

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Engineering and Technology Education career cluster. The content includes but is not limited to providing the opportunity to solve technological problems using a variety of tools, materials, processes and systems while gaining an understanding of the effects of production technology on our everyday lives. Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

## Course Structure

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8600220	Exploring Technology and Career Planning	ENG 7G ENG TEC 7G PLTW PTE 7G TEC ED 1 @2 ENG&TEC ED1@2	Semester

## **Standards**

### **After successfully completing this program, the student will be able to perform the following:**

- 01.0 Demonstrate an understanding of the characteristics and scope of technology.
- 02.0 Demonstrate an understanding of the core concepts of technology.
- 03.0 Demonstrate an understanding of the relationships among technologies and the connection between technology and other fields of study.
- 04.0 Demonstrate an understanding of the cultural, social, economic, and political effects of technology.
- 05.0 Demonstrate an understanding of the effects of technology on the environment.
- 06.0 Demonstrate an understanding of the role of society in the development and use of technology.
- 07.0 Demonstrate an understanding of the influence of history on technology.
- 08.0 Demonstrate an understanding of the attributes of design.
- 09.0 Demonstrate an understanding of engineering design.
- 10.0 Demonstrate an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.
- 11.0 Demonstrate the abilities to apply the design process.
- 12.0 Demonstrate the abilities to use and maintain technological products and systems.
- 13.0 Demonstrate the abilities to assess the impact of products and systems.
- 14.0 Demonstrate an understanding of and be able to select and use medical technologies.
- 15.0 Demonstrate an understanding of and be able to select and use agricultural and related biotechnologies.
- 16.0 Demonstrate an understanding of and be able to select and use energy and power technologies.
- 17.0 Demonstrate an understanding of and be able to select and use information and communication technologies.
- 18.0 Demonstrate an understanding of and be able to select and use transportation technologies.
- 19.0 Demonstrate an understanding of and be able to select and use manufacturing technologies.
- 20.0 Demonstrate an understanding of and be able to select and use construction technologies.
- 21.0 Demonstrate proper and safe procedures while working with technological tools, apparatus, equipment, systems, and materials.
- 22.0 Exhibit positive human relations and leadership skills.
- 23.0 Discuss individual interests, aptitudes, and opportunities as they relate to a career.

### **Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156 Florida Statutes.**

- 24.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.
- 25.0 Develop skills to locate, evaluate, and interpret career information.
- 26.0 Identify and demonstrate processes for making short and long term goals.
- 27.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
- 28.0 Understand the relationship between educational achievement and career choices/postsecondary options.
- 29.0 Identify a career cluster and related pathways that match career and education goals.
- 30.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
- 31.0 Demonstrate knowledge of technology and its application in career fields/clusters.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Exploring Technology and Career Planning  
**Course Number:** 8600220  
**Course Length:** Semester

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate an understanding of the characteristics and scope of technology.--The student will be able to:
01.01	Develop new products and systems to solve problems or to help do things that could not be done without the help of technology.
01.02	Describe the development of technology as a human activity that is the result of individual or collective needs and the ability to be creative.
01.03	Explain how technology is closely linked with creativity, which has resulted in innovation.
01.04	Demonstrate how corporations can often create demand for a product by bringing it onto the market and advertising it.
02.0	Demonstrate an understanding of the core concepts of technology.--The student will be able to:
02.01	Describe technological systems including input, processes, output, and, at times, feedback.
02.02	Apply systems thinking, involving considering how every part relates to others.
02.03	Identify control systems having no feedback path and requiring human intervention, and control systems using feedback.
02.04	Explain how technological systems can be connected to one another.
02.05	Repair malfunctions of any part of a system that may affect the function and quality of the system.
02.06	Compare and contrast requirements or parameters placed on the development of a product or system.
02.07	Compare and contrast trade-offs as a decision process recognizing the need for careful compromises among competing factors.
02.08	Describe different technologies that involve different sets of processes.
02.09	Perform basic maintenance as the process of inspecting and servicing a product or system on a regular basis in order for it to continue functioning properly, to extend its life, or to upgrade its capability.
02.10	Utilize controls and mechanisms or particular steps that people perform using information about the system that causes systems to change.
03.0	Demonstrate an understanding of the relationships among technologies and the connection between technology and other fields of study.- -The student will be able to:
03.01	Modify the way technological systems interact with one another.

## CTE Standards and Benchmarks

03.02	Apply a product, system, or environment developed for one setting in another setting.
03.03	Explain how knowledge gained from other fields of study has a direct effect on the development of technological products and systems.
04.0	Demonstrate an understanding of the cultural, social, economic, and political effects of technology.--The student will be able to:
04.01	Identify the ways that use of technology affects humans, including their safety, comfort, choices, and attitudes about technology's development and use.
04.02	Explain that technology, by itself, is neither good nor bad; but decisions about the use of products and systems can result in desirable or undesirable consequences.
04.03	Identify ethical issues associated with the development and use of technology.
04.04	Identify the economic, political, and cultural issues that are influenced by the development and use of technology.
05.0	Demonstrate an understanding of the effects of technology on the environment.--The student will be able to:
05.01	Describe the management of waste produced by technological systems as an important societal issue.
05.02	Describe how technologies can be used to repair damage caused by natural disasters and to break down waste from the use of various products and systems.
05.03	Make decisions about the development and use of technologies that put environmental and economic concerns in direct competition with one another.
06.0	Demonstrate an understanding of the role of society in the development and use of technology.--The student will be able to:
06.01	Describe the development of technologies that has resulted from the demands, values, and interests of individuals, businesses, industries, and societies.
06.02	Describe changes in society and the creation of new needs and wants caused by the use of inventions and innovations.
06.03	Understand social and cultural priorities and values that are reflected in technological devices.
06.04	Explain how meeting societal expectations is the driving force behind the acceptance and use of products and systems.
07.0	Demonstrate an understanding of the influence of history on technology.--The student will be able to:
07.01	Identify inventions and innovations that have evolved by using slow and methodical processes of tests and refinements.
07.02	Explain how the specialization of function has been at the heart of many technological improvements.
07.03	Identify the design and construction of structures for service or convenience evolving from the development of techniques for measurement, controlling systems, and the understanding of spatial relationships.
07.04	Investigate how, that in the past, an invention or innovation was not usually developed with the knowledge of science.
08.0	Demonstrate an understanding of the attributes of design.--The student will be able to:



## CTE Standards and Benchmarks

08.01 Use design as a creative planning process that leads to useful products and systems.

08.02 Explain why there is no perfect design.

08.03 Evaluate criteria and constraints that are requirements for a design.

08.04 Demonstrate the ability to properly identify different resources used in projects.

09.0 Demonstrate an understanding of engineering design.--The student will be able to:

09.01 Utilize the design process involving a set of steps, which can be performed in different sequences and repeated as needed.

09.02 Employ brainstorming as a group problem-solving design process in which each person in the group presents his or her ideas in an open forum.

09.03 Model, test, evaluate and modify designs to transform ideas into practical solutions.

10.0 Demonstrate an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.--The student will be able to:

10.01 Use troubleshooting as a problem-solving method used to identify the cause of a malfunction in a technological system.

10.02 Describe invention as a process of turning ideas and imagination into devices and systems and innovation as the process of modifying an existing product or system to improve it.

10.03 Identify technological problems that are best solved through experimentation.

11.0 Demonstrate the abilities to apply the design process.--The student will be able to:

11.01 Apply a design process to solve problems in and beyond the laboratory-classroom.

11.02 Specify criteria and constraints for the design.

11.03 Make two-dimensional and three-dimensional representations of the designed solution.

11.04 Test and evaluate the design in relation to pre-established requirements, such as criteria and constraints, and refine as needed.

11.05 Make a product or system and document the solution.

12.0 Demonstrate the abilities to use and maintain technological products and systems.--The student will be able to:

12.01 Use information provided in manuals, protocols, or by experienced people to see and understand how things work.

12.02 Use tools, materials, and machines safely to diagnose, adjust, and repair systems.

12.03 Use computers and calculators in various applications.

## CTE Standards and Benchmarks

12.04 Operate and maintain systems in order to achieve a given purpose.

13.0 Demonstrate the abilities to assess the impact of products and systems.--The student will be able to:

13.01 Design and use instruments to gather data.

13.02 Use data collected to analyze and interpret trends in order to identify the positive or negative effects of a technology.

13.03 Identify trends and monitor potential consequences of technological development.

13.04 Interpret and evaluate the accuracy of the information obtained and determine if it is useful.

14.0 Demonstrate an understanding of and be able to select and use medical technologies.--The student will be able to:

14.01 Describe how advances and innovations in medical technologies are used to improve healthcare.

14.02 Describe how sanitation processes used in the disposal of medical products help to protect people from harmful organisms and disease, and shape the ethics of medical safety.

14.03 Explain how the vaccines developed for use in immunization require specialized technologies to support environments in which a sufficient amount of vaccines are produced.

14.04 Describe genetic engineering involving modifying the structure of DNA to produce novel genetic make-ups.

15.0 Demonstrate an understanding of and be able to select and use agricultural and related biotechnologies.--The student will be able to:

15.01 Describe technological advances in agriculture directly affecting the time and number of people required to produce food for a large population.

15.02 Describe how a wide range of specialized equipment and practices is used to improve the production of food, fiber, fuel, and other useful products and in the care of animals.

15.03 Explain how biotechnology applies the principles of biology to create commercial products or processes.

15.04 Create artificial ecosystems that are human-made complexes that replicate some aspects of natural environments.

15.05 Explain how the development of refrigeration, freezing, dehydration, preservation, and irradiation provide long-term storage of food and reduce the health risks caused by tainted food.

16.0 Demonstrate an understanding of and be able to select and use energy and power technologies.--The student will be able to:

16.01 Define energy as the capacity to do work.

16.02 Explain how energy can be used to do work, using many processes.

16.03 Define power as the rate at which energy is converted from one form to another or transferred from one place to another, or the rate at which work is done.

16.04 Describe power systems used to drive and provide propulsion to other technological products and systems.

## CTE Standards and Benchmarks

16.05	Explain how much of the energy used in our environment is not used efficiently.
17.0	Demonstrate an understanding of and be able to select and use information and communication technologies.--The student will be able to:
17.01	Create information and communication systems that allow information to be transferred from human to human, human to machine, machine to machine, and machine to human.
17.02	Describe communication systems made up of a source, encoder, transmitter, receiver, decoder, and destination.
17.03	Consider factors that influence the design of a message, such as the intended audience, medium, purpose, and nature of the message.
17.04	Use symbols, measurements, and drawings to promote clear communication by providing a common language to express ideas.
18.0	Demonstrate an understanding of and be able to select and use transportation technologies.--The student will be able to:
18.01	Describe how transporting people and goods involve a combination of individuals and vehicles.
18.02	Describe subsystems of transportation vehicles, such as structural, propulsion, suspension, guidance, control, and support that must function together for a system to work effectively.
18.03	Summarize processes, such as receiving, holding, storing, loading, moving, unloading, delivering, evaluating, marketing, managing, communicating, and using conventions are necessary for the entire transportation system to operate efficiently.
18.04	Describe how governmental regulations often influence the design and operation of transportation systems.
19.0	Demonstrate an understanding of and be able to select and use manufacturing technologies.--The student will be able to:
19.01	Describe manufacturing systems using mechanical processes that change the form of materials through processes of separating, forming, combining, and conditioning them.
19.02	Classify manufactured goods as durable and non-durable.
19.03	Employ the manufacturing process including the designing, development, making, and servicing of products and systems.
19.04	Describe manufacturing technologies that are used to modify or alter manufactured products.
19.05	Explain that materials must first be located before they can be extracted from the earth through processes such as harvesting, drilling, and mining.
20.0	Demonstrate an understanding of and be able to select and use construction technologies.--The student will be able to:
20.01	Research building laws and codes.
20.02	Identify factors such as style, convenience, cost, climate, and function in the selection of designs for structures.
20.03	Explain that structures rest on a foundation.
20.04	Classify structures as temporary or permanent.

## CTE Standards and Benchmarks

20.05 Describe subsystems of a building.

21.0 Demonstrate proper and safe procedures while working with technological tools, apparatus, equipment, systems, and materials.--The student will be able to:

21.01 Follow classroom/laboratory safety rules and procedures.

21.02 Demonstrate good housekeeping at workstations within a total laboratory.

21.03 Conduct classroom/laboratory activities and equipment operations in a safe manner.

21.04 Exercise care and respect for all tools, equipment, and materials.

21.05 Select appropriate tools, machines, and equipment to accomplish a given task.

21.06 Identify color-coding safety standards.

21.07 Safely use hand tools and power equipment.

21.08 Explain fire prevention and safety precautions and practices for extinguishing fires.

21.09 Identify harmful effects/potential dangers of familiar hazardous substances/devices to people and the environment.

22.0 Exhibit positive human relations and leadership skills.--The student will be able to:

22.01 Perform roles in a student personnel system or in the Florida Technology Student Association (FL-TSA).

22.02 Work cooperatively with others.

23.0 Discuss individual interests, aptitudes, and opportunities as they relate to a career.--The student will be able to:

23.01 Identify individual strengths and weaknesses.

23.02 Discuss individual interests related to a career.

23.03 Identify careers within specific areas of technology.

23.04 Explore careers within specific areas of interest.

23.05 Form an understanding and appreciation for work after listening to or observing technology workers.

23.06 Form an understanding and appreciation for work after participating in a simulated technology group project in the laboratory.

23.07 Form an understanding and appreciation for the roles and work of co-workers.

## CTE Standards and Benchmarks

**Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156 Florida Statutes.**

The student will be able to:

24.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.

25.0 Develop skills to locate, evaluate, and interpret career information.

26.0 Identify and demonstrate processes for making short and long term goals.

27.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.

28.0 Understand the relationship between educational achievement and career choices/postsecondary options.

29.0 Identify a career cluster and related pathways through an interest assessment that match career and education goals.

30.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.

31.0 Demonstrate knowledge of technology and its application in career fields/clusters.

## Additional Information

### Laboratory Activities

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### Florida Standards for English Language Development (ELD)

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### Special Notes

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### Career Planning

**Effective July 1, 2019, per Section 1003.4156, Florida Statutes (F.S.), for students to meet middle grades promotion requirements, a Career and Education Planning course must be completed in either sixth, seventh, or eighth grade.** These courses should be taught integrating the eight career and education planning course standards. The MyCareerShines powered by Kuder® career planning system is available free of charge to all Florida middle and high schools to assist students in completing research-based career assessments, exploring career options and developing an online academic and career plan.

### Career and Technical Student Organization (CTSO)

The Florida Technology Student Association (FL-TSA) is the intercurricular career and technical student organization for providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

## **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Program Title:** Integrated Technology Studies and Career Planning\*  
**Program Type:** Orientation/Exploratory  
**Career Cluster:** Engineering & Technology Education

**Secondary – Middle School**

Program Number	8600360
CIP Number	08210101MS
Grade Level	6 – 8
Standard Length	Semester
Teacher Certification	Refer to the <b>Program Structure</b> section
CTSO	FL-TSA

\*Effective July 1, 2017, there is no longer a promotion requirement for middle grades students to complete a Career and Education Planning course. However, these courses will continue to be available and should be taught integrating the eight career and education planning course standards. The MyCareerShines powered by Kuder® career planning system is available free of charge to all Florida middle and high schools to assist students in exploring career options and developing an academic and career plan.

**Purpose**

The purpose of this program is to provide students with a foundation of knowledge and technically oriented experiences in the study of the applications of technology and its effect upon our lives and the choosing of an occupation. The content and activities will also include the study of safety, and leadership skills. This program focuses on transferable skills and stresses understanding and demonstration of the technological tools, machines, instruments, materials, processes and systems in business and industry.

The emphasis of this program is on developing awareness of future needs, developing technological competence, confidence and awareness through interaction with technologies, developing awareness of other career programs, interacting with business, industry and community organizations, applying basic skills in learning activities, and developing self-awareness of individual abilities, needs and interests. The courses are intended to help students develop their problem-solving skills and creativity while learning about technology and careers in the Engineering & Technology Education career cluster. Students will learn to gather data through research and testing, as well as to document their results and processes.

The content includes introductory studies in areas of technology which introduce students to the development of abilities to calculate, make important observation's, analyze and solve problems using manipulative skills while working cooperatively with others in team activities.



**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Program Structure**

This program contains a series of instructional courses listed below.

The lengths of these courses are one semester. They may be offered for two semesters when appropriate. When offered for one semester, it is recommended that the course be at the exploratory level and more in-depth when offered for two semesters.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8600012	Introduction to Technology and Career Planning	ENG 7G	Semester
8600220	Exploring Technology and Career Planning	ENG TEC 7G PLTW PTE 7G TEC ED 1 @2 ENG&TEC ED1@2	Semester
8600032	Exploration of Communications Technology and Career Planning	COMM ART @7 7G ENG 7G GRAPH ARTS @4 PRINTING @7 7G TEC ED 1 @2 ENG&TEC ED1@2	Semester
8600042	Exploration of Production Technology and Career Planning	AUTO PROD 7G BLDG CONST @7 7G BLDG MAINT @7 7G CARPENTRY @7 7G ENG 7G ENG TEC 7G METALWORK 7G PLTW PTE 7G TEC CONSTR @7 7G TEC ED 1 @2 ENG&TEC ED1@2	Semester
8600052	Exploration of Aerospace Technology and Career Planning	AEROSPACE 7G ENG 7G ENG TEC 7G PLTW PTE 7G TEC ED 1 @2 ENG&TEC ED1@2	Semester

Course Number	Course Title	Teacher Certification	Length
8600242	Exploration of Transportation Technology and Career Planning	AIR MECH @7 7G AUTO IND @7 %7 %G AUTO MECH @7 7G DIESEL MECH @7 7G ENG 7G GASENG RPR @7 7G TEC ED 1 @2 ENG&TEC ED1@2 TEC MECH 7G TRANSPORT 7G	Semester
8600252	Exploration of Power and Energy Technology and Career Planning	AUTO IND @7 %7 %G AUTO MECH @7 7G DIESEL MECH @7 7G ENG 7G GASENG RPR @7 7G TEC ED 1 @2 ENG&TEC ED1@2 TEC MECH 7G TRANSPORT 7G	Semester
8600062	Exploration of Engineering Technology and Career Planning	ENG 7G ENG TEC 7G PLTW PTE 7G TEC ED 1 @2 ENG&TEC ED1@2	Semester
8600072	Exploration of Robotics Technology and Career Planning	ENG 7G ENG TEC 7G ROBOTICS 7G TEC ED 1 @2 ENG&TEC ED1@2	Semester
8600082	Exploration of Technical Design Technology and Career Planning	DRAFTING @7 7G ENG 7G ENG TEC 7G GRAPH ARTS @4 PLTW PTE 7G TEC ED 1 @2 ENG&TEC ED1@2	Semester
8600095	Exploration of Electronics Technology and Career Planning	ELECTRICAL @7 7G ELECTRONIC @7 7G ENG 7G ENG TEC 7G PLTW PTE 7G	Semester

Course Number	Course Title	Teacher Certification	Length
		TEC ED 1 @2 ENG&TEC ED1@2 TEC ELEC @7 7G	
8600096	Exploration of Maritime Technology and Career Planning	ENG 7G ENG TEC 7G SEAMANSHIP 7G TEC ED 1 @2 ENG&TEC ED1@2	Semester
8600097	Exploration of Logistics and Supply Chain Technology and Career Planning	BUS ED 1 ENG 7G ENG TEC 7G LOG TECH 7G TEC ED 1 @2 ENG&TEC ED1@2	Semester
8600098	Exploration of Green Construction and Architecture Technology and Career Planning	BLDG CONST @7 7G BLDG MAINT @7 7G CARPTENTRY @7 7G DRAFTING @7 7G ENG 7G ENG TEC 7G PLTW PTE 7G TEC CONSTR @7 7G TEC DRAFT 7G TEC ED 1 @2 ENG&TEC ED1@2 WOODWORKIN @4	Semester

## **Standards**

### **After successfully completing this program, the student will be able to perform the following:**

- 01.0 Demonstrate an understanding of the characteristics and scope of technology.
- 02.0 Demonstrate an understanding of the core concepts of technology.
- 03.0 Demonstrate an understanding of the relationships among technologies and the connection between technology and other fields of study.
- 04.0 Demonstrate an understanding of the cultural, social, economic, and political effects of technology.
- 05.0 Demonstrate an understanding of the effects of technology on the environment.
- 06.0 Demonstrate an understanding of the role of society in the development and use of technology.
- 07.0 Demonstrate an understanding of the influence of technology on history.
- 08.0 Demonstrate an understanding of the attributes of design.
- 09.0 Demonstrate an understanding of engineering design.
- 10.0 Demonstrate an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.
- 11.0 Demonstrate the abilities to apply the design process.
- 12.0 Demonstrate the abilities to use and maintain technological products and systems.
- 13.0 Demonstrate the abilities to assess the impact of products and systems.
- 14.0 Demonstrate an understanding of and be able to select and use medical technologies.
- 15.0 Demonstrate an understanding of and be able to select and use agricultural and related biotechnologies.
- 16.0 Demonstrate an understanding of and be able to select and use energy and power technologies.
- 17.0 Demonstrate an understanding of and be able to select and use information and communications technologies.
- 18.0 Demonstrate an understanding of and be able to select and use transportation technologies.
- 19.0 Demonstrate an understanding of and be able to select and use manufacturing technologies.
- 20.0 Demonstrate an understanding of and be able to select and use construction technologies.
- 21.0 Demonstrate proper and safe procedures while working with technological tools, apparatus, equipment, systems, and materials.
- 22.0 Exhibit positive human relations and leadership skills.
- 23.0 Discuss individual interests, aptitudes, and opportunities as they relate to a career.

### **Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes.**

- 24.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.
- 25.0 Develop skills to locate, evaluate, and interpret career information.
- 26.0 Identify and demonstrate processes for making short and long term goals.
- 27.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
- 28.0 Understand the relationship between educational achievement and career choices/postsecondary options.
- 29.0 Identify a career cluster and related pathways that match career and education goals.
- 30.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
- 31.0 Demonstrate knowledge of technology and its application in career fields/clusters.

### **Exploration of Communications Technology**

- 32.0 Demonstrate an application of basic digital publishing techniques.
- 33.0 Identify and describe the major types of printing techniques used in print production.
- 34.0 Identify and demonstrate the role of electronic communication.
- 35.0 Identify and demonstrate the role of optical technology.

### **Exploration of Production Technology**

- 36.0 Identify evolving technologies of Production Systems.
- 37.0 Perform special skills unique to Manufacturing Technology.
- 38.0 Express knowledge of factors that impact Manufacturing Technologies and practices.

### **Exploration of Aerospace Technology**

- 39.0 Discuss educational and training requirements as they relate to various aerospace careers.
- 40.0 Demonstrate an understanding of and be able to select and use aerospace technologies.
- 41.0 Demonstrate knowledge of the basic principles of aerostatics and aerodynamics.
- 42.0 Identify and demonstrate knowledge of both liquid and solid propellant rocket propulsion systems.
- 43.0 Define and describe the stages and forms of interference in basic satellite communication systems.
- 44.0 Become familiar with the basic information provided by a sectional chart.
- 45.0 Describe and define different categories of aviation.

### **Exploration of Transportation Technology**

- 46.0 Perform special skills unique to transportation technologies.
- 47.0 Express knowledge of the industries that deal with transportation technology.

### **Exploration of Power and Energy Technology**

- 48.0 Perform special skills unique to power and energy technologies.
- 49.0 Express knowledge of the industries that deal with power and energy technology.

### **Exploration of Engineering Technology**

- 50.0 Demonstrate skill in technical sketching and drawing as it relates to engineering design.
- 51.0 Demonstrate foundational knowledge and skills associated with the design of engineering systems (e.g. mechanical, fluid, electrical systems).
- 52.0 Demonstrate understanding and use of measurement tools and systems.
- 53.0 Demonstrate an understanding of the engineering process.
- 54.0 Demonstrate foundational knowledge and skills associated with common computer peripherals and computer functions.
- 55.0 Demonstrate an understanding of Internet safety and ethics.

- 56.0 Develop fundamental business productivity software skills.
- 57.0 Successfully work as a member of a team.

### **Exploration of Robotics Technology**

- 58.0 Demonstrate an understanding of robotics, its history, applications, and evolution.
- 59.0 Demonstrate an understanding of basic programming concepts.
- 60.0 Identify the basic subsystems on a robotic system.
- 61.0 Describe the role of sensors in the field of robotics.
- 62.0 Build, program, and configure a robot to perform predefined tasks.
- 63.0 Solve problems using critical thinking skills, creativity and innovation.

### **Exploration of Technical Design Technology**

- 64.0 Demonstrate technical skills and applications common to all types of drafting.
- 65.0 Demonstrate technical knowledge and skills for making basic orthographic drawings.
- 66.0 Demonstrate technical knowledge and skills for making pictorial drawings.
- 67.0 Demonstrate technical knowledge and skills for making a three-dimensional study model.

### **Exploration of Electronics Technology**

- 68.0 Demonstrate an understanding of the nature of electricity.
- 69.0 Explore the basics of electric circuits.
- 70.0 Investigate digital signals and basic digital components.
- 71.0 Demonstrate and apply proper use of electronic equipment.
- 72.0 Demonstrate proper electronic assembly methods.

### **Exploration of Maritime Technology**

- 73.0 Demonstrate knowledge relating to the historical origins of the maritime industry from vessel development, cultural, and trade perspectives.
- 74.0 Demonstrate proficiency in understanding the various career paths in the maritime industry.
- 75.0 Demonstrate an understanding of required skills sets by mariners including, safety training, regulations, and leadership.
- 76.0 Demonstrate proficiency in using engineering methods for ship construction and design.
- 77.0 Identify and explain various vessels and their use.
- 78.0 Evaluate the environmental impact of the maritime industry.
- 79.0 Examine the potential and use of marine resources.
- 80.0 Demonstrate an understanding of oceanography concepts.
- 81.0 Demonstrate an understanding of the fundamentals of marine biology.

### **Exploration of Logistics and Supply Chain Technology**

- 82.0 Demonstrate an understanding of global logistics and supply chain.

- 83.0 Demonstrate an understanding of transportation systems.
- 84.0 Demonstrate professional communication skills.
- 85.0 Demonstrate customer service skills.
- 86.0 Demonstrate an understanding of warehouse operations.
- 87.0 Demonstrate an understanding of storage and control operations.

### **Exploration of Green Construction and Architecture Technology**

- 88.0 Demonstrate an understanding of the built environment.
- 89.0 Demonstrate an understanding of the green environment.
- 90.0 Use building laws and codes, style, convenience, cost, climate, and function to select building designs.
- 91.0 Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.
- 92.0 Describe the human impact on the environment and identify ways to minimize environmental impacts.
- 93.0 Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions and accurately measure drawing dimensions.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Introduction to Technology and Career Planning  
**Course Number:** 8600012  
**Course Length:** Semester  
**Teacher Certification:** Refer to the Program Structure section

**Course Description:**

The purpose of this course is to give students an introduction to the areas of technology and to introduce students to the design and problem solving processes using manipulative skills while working cooperatively with others in team activities.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate an understanding of the characteristics and scope of technology.--The student will be able to:
01.01	Develop new products and systems to solve problems or to help do things that could not be done without the help of technology.
01.02	Describe the development of technology as a human activity that is the result of individual or collective needs and the ability to be creative.
01.03	Explain how technology is closely linked with creativity, which has resulted in innovation.
02.0	Demonstrate an understanding of the core concepts of technology.--The student will be able to:
02.01	Identify technological systems including input, processes, output, and, at times, feedback.
02.02	Define systems thinking, involving considering how every part relates to others.
02.03	Identify control systems having no feedback path and requiring human intervention, and control system using feedback.
02.04	Identify how technological systems can be connected to one another.
02.05	Diagnose malfunctions of any part of a system that may affect the function and quality of the system.
02.06	Identify requirements or parameters placed on the development of a product or system.
02.07	Identify trade-offs as a decision process recognizing the need for careful compromises among competing factors.
03.0	Demonstrate an understanding of the relationships among technologies and the connection between technology and other fields of study.- -The student will be able to:
03.01	Explain how technological systems interact with one another.
03.02	Explain how knowledge gained from other fields of study has a direct effect on the development of technological products and systems.
04.0	Demonstrate an understanding of the cultural, social, economic, and political effects of technology.--The student will be able to:



## CTE Standards and Benchmarks

04.01	Describe ethical issues associated with the development and use of technology.
04.02	Describe the economic, political, and cultural issues that are influenced by the development and use of technology.
05.0	Demonstrate an understanding of the effects of technology on the environment.--The student will be able to:
05.01	Describe the management of waste produced by technological systems as an important societal issue.
05.02	Identify how technologies can be used to repair damage caused by natural disasters and to break down waste from the use of various products and systems.
06.0	Demonstrate an understanding of the role of society in the development and use of technology.--The student will be able to:
06.01	Identify changes in society and the creation of new needs and wants caused by the use of inventions and innovations.
06.02	Understand how social and cultural priorities and values are reflected in technological devices.
07.0	Demonstrate an understanding of the influence of technology on history.--The student will be able to:
07.01	Identify inventions and innovations that have evolved by using slow and methodical processes of tests and refinements.
07.02	Explain how the specialization of function has been at the heart of many technological improvements.
08.0	Demonstrate an understanding of the attributes of design.--The student will be able to:
08.01	Use design as a creative planning process that leads to useful products and systems.
08.02	Explain why there is no perfect design.
08.03	Identify criteria and constraints that are requirements for a design.
08.04	Demonstrate the ability to properly identify different resources used in projects.
09.0	Demonstrate an understanding of engineering design.--The student will be able to:
09.01	Identify the design process involving a set of steps, which can be performed in different sequences and repeated as needed.
09.02	Define brainstorming as a group problem-solving design process in which each person in the group presents his or her ideas in an open forum.
09.03	Model, test, evaluate and modify designs to transform ideas into practical solutions.
10.0	Demonstrate an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.--The student will be able to:
10.01	Use troubleshooting as a problem-solving method used to identify the cause of a malfunction in a technological system.
10.02	Define invention as a process of turning ideas and imagination into devices and systems and innovation as the process of modifying an existing product or system to improve it.
10.03	Identify technological problems that are best solved through experimentation.
11.0	Demonstrate the abilities to apply the design process.--The student will be able to:
11.01	Apply a design process to solve problems in and beyond the laboratory-classroom.

## CTE Standards and Benchmarks

11.02	Specify criteria and constraints for the design.
11.03	Test and evaluate the design in relation to pre-established requirements, such as criteria and constraints, and refine as needed.
11.04	Make a product or system and document the solution.
12.0	Demonstrate the abilities to use and maintain technological products and systems.--The student will be able to:
12.01	Use information provided in manuals, protocols, or by experienced people to see and understand how things work.
12.02	Use tools, materials, and machines safely to diagnose, adjust, and repair systems.
12.03	Use computers and calculators in various applications.
13.0	Demonstrate the abilities to assess the impact of products and systems.--The student will be able to:
13.01	Use data collected to analyze and interpret trends in order to identify the positive or negative effects of a technology.
13.02	Interpret and evaluate the accuracy of the information obtained and determine if it is useful.
14.0	Demonstrate an understanding of and be able to select and use medical technologies.--The student will be able to:
14.01	Explain how advances and innovations in medical technologies are used to improve healthcare.
14.02	Explain how the vaccines developed for use in immunization require specialized technologies to support environments in which a sufficient amount of vaccines are produced.
15.0	Demonstrate an understanding of and be able to select and use agricultural and related biotechnologies.--The student will be able to:
15.01	Identify technological advances in agriculture directly affecting the time and number of people required to produce food for a large population.
15.02	Explain how biotechnology applies the principles of biology to create commercial products or processes.
16.0	Demonstrate an understanding of and be able to select and use energy and power technologies.--The student will be able to:
16.01	Define energy as the capacity to do work.
16.02	Explain how energy can be used to do work, using many processes.
16.03	Define power systems used to drive and provide propulsion to other technological products and systems.
17.0	Demonstrate an understanding of and be able to select and use information and communication technologies.--The student will be able to:
17.01	Identify information and communication systems that allow information to be transferred from human to human, human to machine, machine to machine, and machine to human.
17.02	Define communication systems made up of a source, encoder, transmitter, receiver, decoder, and destination.
18.0	Demonstrate an understanding of and be able to select and use transportation technologies.--The student will be able to:
18.01	Describe how transporting people and goods involve a combination of individuals and vehicles.
18.02	Identify subsystems of transportation vehicles, such as structural, propulsion, suspension, guidance, control, and support that must function together for a system to work effectively.

## CTE Standards and Benchmarks

19.0	Demonstrate an understanding of and be able to select and use manufacturing technologies.--The student will be able to:
19.01	Define manufacturing systems using mechanical processes that change the form of materials through processes of separating, forming, combining, and conditioning them.
19.02	Classify manufactured goods as durable and non-durable.
19.03	Define manufacturing technologies that are used to modify or alter manufactured products.
19.04	Explain that materials must first be located before they can be extracted from the earth through processes such as harvesting, drilling, and mining.
20.0	Demonstrate an understanding of and be able to select and use construction technologies.--The student will be able to:
20.01	Identify factors such as style, convenience, cost, climate, and function in the selection of designs for structures.
20.02	Explain that structures rest on a foundation.
20.03	Classify structures as temporary or permanent.
21.0	Demonstrate proper and safe procedures while working with technological tools, apparatus, equipment, systems, and materials.--The student will be able to:
21.01	Follow classroom/laboratory safety rules and procedures.
21.02	Demonstrate good housekeeping at workstations within a classroom/laboratory.
21.03	Conduct classroom/laboratory activities and equipment operations in a safe manner.
21.04	Exercise care and respect for all tools, equipment, and materials.
21.05	Identify color-coding safety standards.
21.06	Safely use hand tools and power equipment.
21.07	Explain fire prevention and safety precautions and practices for extinguishing fires.
21.08	Identify harmful effects/potential dangers of familiar hazardous substances/devices to people and the environment.
22.0	Exhibit positive human relations and leadership skills.--The student will be able to:
22.01	Perform roles in a student personnel system or in a career and technical student organization (CTSO).
22.02	Work cooperatively with others.
23.0	Discuss individual interests, aptitudes, and opportunities as they relate to a career.--The student will be able to:
23.01	Describe individual strengths and weaknesses.
23.02	Discuss individual interests related to a career.
23.03	Identify careers within specific areas of technology.
23.04	Explore careers within specific areas of interest.

## CTE Standards and Benchmarks

**Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes.**

The student will be able to:

- |      |   |
|------|---|
| 24.0 | Describe the influences that societal, economic, and technological changes have on employment trends and future training.                       |
| 25.0 | Develop skills to locate, evaluate, and interpret career information.   |
| 26.0 | Identify and demonstrate processes for making short and long term goals.  |
| 27.0 | Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship. |
| 28.0 | Understand the relationship between educational achievement and career choices/postsecondary options.   |
| 29.0 | Identify a career cluster and related pathways through an interest assessment that match career and education goals.                            |
| 30.0 | Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.      |
| 31.0 | Demonstrate knowledge of technology and its application in career fields/clusters.  |

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Exploring Technology and Career Planning  
**Course Number:** 8600220  
**Course Length:** Semester  
**Teacher Certification:** Refer to the Program Structure section

**Course Description:**

The purpose of this course is to give students an opportunity to explore the areas of technology and associated careers available in technical fields. Students will be given the opportunity to solve technological problems while gaining an understanding of the effects of technology on our everyday lives.

<b>CTE Standards and Benchmarks</b>	
<b>01.0</b>	Demonstrate an understanding of the characteristics and scope of technology.--The student will be able to:
01.01	Develop new products and systems to solve problems or to help do things that could not be done without the help of technology.
01.02	Describe the development of technology as a human activity that is the result of individual or collective needs and the ability to be creative.
01.03	Explain how technology is closely linked with creativity, which has resulted in innovation.
01.04	Demonstrate how corporations can often create demand for a product by bringing it onto the market and advertising it.
<b>02.0</b>	Demonstrate an understanding of the core concepts of technology.--The student will be able to:
02.01	Describe technological systems including input, processes, output, and, at times, feedback.
02.02	Apply systems thinking, involving considering how every part relates to others.
02.03	Identify control systems having no feedback path and requiring human intervention, and control systems using feedback.
02.04	Explain how technological systems can be connected to one another.
02.05	Repair malfunctions of any part of a system that may affect the function and quality of the system.
02.06	Compare and contrast requirements or parameters placed on the development of a product or system.
02.07	Compare and contrast trade-offs as a decision process recognizing the need for careful compromises among competing factors.
02.08	Describe different technologies that involve different sets of processes.
02.09	Perform basic maintenance as the process of inspecting and servicing a product or system on a regular basis in order for it to continue functioning properly, to extend its life, or to upgrade its capability.

## CTE Standards and Benchmarks

02.10	Utilize controls and mechanisms or particular steps that people perform using information about the system that causes systems to change.
03.0	Demonstrate an understanding of the relationships among technologies and the connection between technology and other fields of study.- -The student will be able to:
03.01	Modify the way technological systems interact with one another.
03.02	Apply a product, system, or environment developed for one setting in another setting.
03.03	Explain how knowledge gained from other fields of study has a direct effect on the development of technological products and systems.
04.0	Demonstrate an understanding of the cultural, social, economic, and political effects of technology.--The student will be able to:
04.01	Identify the ways that use of technology affects humans, including their safety, comfort, choices, and attitudes about technology's development and use.
04.02	Explain that technology, by itself, is neither good nor bad; but decisions about the use of products and systems can result in desirable or undesirable consequences.
04.03	Identify ethical issues associated with the development and use of technology.
04.04	Identify the economic, political, and cultural issues that are influenced by the development and use of technology.
05.0	Demonstrate an understanding of the effects of technology on the environment.--The student will be able to:
05.01	Describe the management of waste produced by technological systems as an important societal issue.
05.02	Describe how technologies can be used to repair damage caused by natural disasters and to break down waste from the use of various products and systems.
05.03	Make decisions about the development and use of technologies that put environmental and economic concerns in direct competition with one another.
06.0	Demonstrate an understanding of the role of society in the development and use of technology.--The student will be able to:
06.01	Describe the development of technologies that has resulted from the demands, values, and interests of individuals, businesses, industries, and societies.
06.02	Describe changes in society and the creation of new needs and wants caused by the use of inventions and innovations.
06.03	Understand social and cultural priorities and values that are reflected in technological devices.
06.04	Explain how meeting societal expectations is the driving force behind the acceptance and use of products and systems.
07.0	Demonstrate an understanding of the influence of technology on history.--The student will be able to:
07.01	Identify inventions and innovations that have evolved by using slow and methodical processes of tests and refinements.
07.02	Explain how the specialization of function has been at the heart of many technological improvements.
07.03	Identify how the design and construction of structures for service or convenience evolving from the development of techniques for measurement, controlling systems, and the understanding of spatial relationships.
07.04	Investigate how, that in the past, an invention or innovation was not usually developed with the knowledge of science.

## CTE Standards and Benchmarks

08.0 Demonstrate an understanding of the attributes of design.--The student will be able to:

08.01 Use design as a creative planning process that leads to useful products and systems.

08.02 Explain why there is no perfect design.

08.03 Evaluate criteria and constraints that are requirements for a design.

08.04 Demonstrate the ability to properly identify different resources used in projects.

09.0 Demonstrate an understanding of engineering design.--The student will be able to:

09.01 Utilize the design process involving a set of steps, which can be performed in different sequences and repeated as needed.

09.02 Employ brainstorming as a group problem-solving design process in which each person in the group presents his or her ideas in an open forum.

09.03 Model, test, evaluate and modify designs to transform ideas into practical solutions.

10.0 Demonstrate an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.--The student will be able to:

10.01 Use troubleshooting as a problem-solving method used to identify the cause of a malfunction in a technological system.

10.02 Describe invention as a process of turning ideas and imagination into devices and systems and innovation as the process of modifying an existing product or system to improve it.

10.03 Identify technological problems that are best solved through experimentation.

11.0 Demonstrate the abilities to apply the design process.--The student will be able to:

11.01 Apply a design process to solve problems in and beyond the laboratory-classroom.

11.02 Specify criteria and constraints for the design.

11.03 Make two-dimensional and three-dimensional representations of the designed solution.

11.04 Test and evaluate the design in relation to pre-established requirements, such as criteria and constraints, and refine as needed.

11.05 Make a product or system and document the solution.

12.0 Demonstrate the abilities to use and maintain technological products and systems.--The student will be able to:

12.01 Use information provided in manuals, protocols, or by experienced people to see and understand how things work.

12.02 Use tools, materials, and machines safely to diagnose, adjust, and repair systems.

12.03 Use computers and calculators in various applications.

12.04 Operate and maintain systems in order to achieve a given purpose.

13.0 Demonstrate the abilities to assess the impact of products and systems.--The student will be able to:

13.01 Design and use instruments to gather data.

## CTE Standards and Benchmarks

13.02	Use data collected to analyze and interpret trends in order to identify the positive or negative effects of a technology.
13.03	Identify trends and monitor potential consequences of technological development.
13.04	Interpret and evaluate the accuracy of the information obtained and determine if it is useful.
14.0	Demonstrate an understanding of and be able to select and use medical technologies.--The student will be able to:
14.01	Describe how advances and innovations in medical technologies are used to improve healthcare.
14.02	Describe how sanitation processes used in the disposal of medical products help to protect people from harmful organisms and disease, and shape the ethics of medical safety.
14.03	Explain how the vaccines developed for use in immunization require specialized technologies to support environments in which a sufficient amount of vaccines are produced.
14.04	Describe genetic engineering involving modifying the structure of DNA to produce novel genetic make-ups.
15.0	Demonstrate an understanding of and be able to select and use agricultural and related biotechnologies.--The student will be able to:
15.01	Describe technological advances in agriculture directly affecting the time and number of people required to produce food for a large population.
15.02	Describe how a wide range of specialized equipment and practices is used to improve the production of food, fiber, fuel, and other useful products and in the care of animals.
15.03	Explain how biotechnology applies the principles of biology to create commercial products or processes.
15.04	Create artificial ecosystems that are human-made complexes that replicate some aspects of natural environments.
15.05	Explain how the development of refrigeration, freezing, dehydration, preservation, and irradiation provide long-term storage of food and reduce the health risks caused by tainted food.
16.0	Demonstrate an understanding of and be able to select and use energy and power technologies.--The student will be able to:
16.01	Define energy as the capacity to do work.
16.02	Explain how energy can be used to do work, using many processes.
16.03	Define power as the rate at which energy is converted from one form to another or transferred from one place to another, or the rate at which work is done.
16.04	Describe power systems used to drive and provide propulsion to other technological products and systems.
16.05	Explain how much of the energy used in our environment is not used efficiently.
17.0	Demonstrate an understanding of and be able to select and use information and communication technologies.--The student will be able to:
17.01	Create information and communication systems that allow information to be transferred from human to human, human to machine, machine to machine, and machine to human.
17.02	Describe communication systems made up of a source, encoder, transmitter, receiver, decoder, and destination.
17.03	Consider factors that influence the design of a message, such as the intended audience, medium, purpose, and nature of the message.



## CTE Standards and Benchmarks

17.04	Use symbols, measurements, and drawings to promote clear communication by providing a common language to express ideas.
18.0	Demonstrate an understanding of and be able to select and use transportation technologies.--The student will be able to:
18.01	Describe how transporting people and goods involve a combination of individuals and vehicles.
18.02	Describe subsystems of transportation vehicles, such as structural, propulsion, suspension, guidance, control, and support that must function together for a system to work effectively.
18.03	Summarize processes, such as receiving, holding, storing, loading, moving, unloading, delivering, evaluating, marketing, managing, communicating, and using conventions are necessary for the entire transportation system to operate efficiently.
18.04	Describe how governmental regulations often influence the design and operation of transportation systems.
19.0	Demonstrate an understanding of and be able to select and use manufacturing technologies.--The student will be able to:
19.01	Describe manufacturing systems using mechanical processes that change the form of materials through processes of separating, forming, combining, and conditioning them.
19.02	Classify manufactured goods as durable and non-durable.
19.03	Employ the manufacturing process including the designing, development, making, and servicing of products and systems.
19.04	Describe manufacturing technologies that are used to modify or alter manufactured products.
19.05	Explain that materials must first be located before they can be extracted from the earth through processes such as harvesting, drilling, and mining.
20.0	Demonstrate an understanding of and be able to select and use construction technologies.--The student will be able to:
20.01	Research building laws and codes.
20.02	Identify factors such as style, convenience, cost, climate, and function in the selection of designs for structures.
20.03	Explain that structures rest on a foundation.
20.04	Classify structures as temporary or permanent.
20.05	Describe subsystems of a building.
21.0	Demonstrate proper and safe procedures while working with technological tools, apparatus, equipment, systems, and materials.--The student will be able to:
21.01	Follow classroom/laboratory safety rules and procedures.
21.02	Demonstrate good housekeeping at workstations within a classroom/laboratory.
21.03	Conduct classroom/laboratory activities and equipment operations in a safe manner.
21.04	Exercise care and respect for all tools, equipment, and materials.
21.05	Select appropriate tools, machines, and equipment to accomplish a given task.
21.06	Identify color-coding safety standards.

## CTE Standards and Benchmarks

21.07 Safely use hand tools and power equipment.

21.08 Explain fire prevention and safety precautions and practices for extinguishing fires.

21.09 Identify harmful effects/potential dangers of familiar hazardous substances/devices to people and the environment.

22.0 Exhibit positive human relations and leadership skills.--The student will be able to:

22.01 Perform roles in a student personnel system or in a career and technical student organization (CTSO).

22.02 Work cooperatively with others.

23.0 Discuss individual interests, aptitudes, and opportunities as they relate to a career.--The student will be able to:

23.01 Identify individual strengths and weaknesses.

23.02 Discuss individual interests related to a career.

23.03 Identify careers within specific areas of technology.

23.04 Explore careers within specific areas of interest.

23.05 Form an understanding and appreciation for work after listening to or observing technology workers.

23.06 Form an understanding and appreciation for work after participating in a simulated technology group project in the laboratory.

23.07 Form an understanding and appreciation for the roles and work of technology workers.

### **Listed below are the eight career and education planning course standards:**

The student will be able to:

24.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.

25.0 Develop skills to locate, evaluate, and interpret career information.

26.0 Identify and demonstrate processes for making short and long term goals.

27.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.

28.0 Understand the relationship between educational achievement and career choices/postsecondary options.

29.0 Identify a career cluster and related pathways through an interest assessment that match career and education goals.

30.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.

31.0 Demonstrate knowledge of technology and its application in career fields/clusters.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Exploration of Communications Technology and Career Planning  
**Course Number:** 8600032  
**Course Length:** Semester  
**Teacher Certification:** Refer to the Program Structure section

**Course Description:**

The purpose of this course is to give students an opportunity to explore the area of communications technology and its associated careers. Students will be given the opportunity to solve technological problems using a variety of tools, materials, processes and systems while gaining an understanding of the effects of communications technology on our everyday lives. A list of minimum tools and equipment to implement this course is located at the end of this framework.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate an understanding of the characteristics and scope of technology.--The student will be able to:
01.01	Develop new products and systems to solve problems or to help do things that could not be done without the help of technology.
01.02	Describe the development of technology as a human activity that is the result of individual or collective needs and the ability to be creative.
01.03	Explain how technology is closely linked with creativity, which has resulted in innovation.
01.04	(Explain, Demonstrate) how corporations can often create demand for a product by bringing it onto the market and advertising it.
02.0	Demonstrate an understanding of the core concepts of technology.--The student will be able to:
02.01	Identify technological systems including input, processes, output, and, at times, feedback.
02.02	Apply systems thinking, involving considering how every part relates to others.
03.0	Demonstrate an understanding of the relationships among technologies and the connection between technology and other fields of study.- -The student will be able to:
03.01	Apply a product, system, or environment developed for one setting in another setting.
03.02	Explain how knowledge gained from other fields of study has a direct effect on the development of technological products and systems.
04.0	Demonstrate an understanding of the cultural, social, economic, and political effects of technology.--The student will be able to:
04.01	Describe the ways that the use of communication technologies affects humans, including their safety, comfort, choices, and attitudes.
04.02	Explain that communication technology, by itself, is neither good nor bad; but decisions about the use of products and systems can result in desirable or undesirable consequences.

## CTE Standards and Benchmarks

04.03	Describe ethical issues associated with the development and use of communication technology.
04.04	Describe the economic, political, and cultural issues that are influenced by the development and use of communication technology.
05.0	Demonstrate an understanding of the effects of technology on the environment.--The student will be able to:
05.01	Describe the management of waste produced by communication technological systems as an important societal issue.
05.02	Identify how communication technologies can be affected by natural disaster.
05.03	Make decisions about the development and use of communication technologies that put environmental and economic concerns in direct competition with one another.
06.0	Demonstrate an understanding of the role of society in the development and use of technology.--The student will be able to:
06.01	Describe the development of technologies that has resulted from the demands, values, and interests of individuals, businesses, industries, and societies.
06.02	Describe changes in society and the creation of new needs and wants caused by the use of inventions and innovations.
06.03	Describe social and cultural priorities and values that are reflected in technological devices.
06.04	Explain how meeting societal expectations is the driving force behind the acceptance and use of products and systems.
07.0	Demonstrate an understanding of the influence of technology on history.--The student will be able to:
07.01	Describe inventions and innovations that have evolved by using slow and methodical processes of tests and refinements.
07.02	Explain how the specialization of function has been at the heart of many technological improvements.
07.03	Explain that in the past, an invention or innovation was not usually developed with the knowledge of science.
08.0	Demonstrate an understanding of the attributes of design.--The student will be able to:
08.01	Use design as a creative planning process that leads to useful products and systems.
08.02	Explain why there is no perfect design.
08.03	Evaluate criteria and constraints that are requirements for a design.
09.0	Demonstrate an understanding of engineering design.--The student will be able to:
09.01	Utilize the design process involving a set of steps, which can be performed in different sequences and repeated as needed.
09.02	Employ brainstorming as a group problem-solving design process in which each person in the group presents his or her ideas in an open forum.
09.03	Model, test, evaluate and modify designs to transform ideas into practical solutions.
10.0	Demonstrate an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.--The student will be able to:
10.01	Use troubleshooting as a problem-solving method used to identify the cause of a malfunction in a technological system.
10.02	Describe invention as a process of turning ideas and imagination into devices and systems and innovation as the process of

## CTE Standards and Benchmarks

modifying an existing product or system to improve it.

10.03 Identify technological problems that are best solved through experimentation.

11.0 Demonstrate the abilities to apply the design process.--The student will be able to:

11.01 Apply a design process to solve problems in and beyond the laboratory-classroom.

11.02 Specify criteria and constraints for the design.

11.03 Make two-dimensional and three-dimensional representations of the designed solution.

11.04 Test and evaluate the design in relation to pre-established requirements, such as criteria and constraints, and refine as needed.

11.05 Make a product or system and document the solution.

12.0 Demonstrate the abilities to use and maintain technological products and systems.--The student will be able to:

12.01 Use information provided in manuals, protocols, or by experienced people to see and understand how things work.

12.02 Use tools, materials, and machines safely to diagnose, adjust, and repair systems.

12.03 Use computers and calculators in various applications.

12.04 Operate and maintain systems in order to achieve a given purpose.

13.0 Demonstrate the abilities to assess the impact of products and systems.--The student will be able to:

13.01 Design and use instruments to gather data.

13.02 Use data collected to analyze and interpret trends in order to identify the positive or negative effects of a technology.

13.03 Identify trends and monitor potential consequences of technological development.

13.04 Interpret and evaluate the accuracy of the information obtained and determine if it is useful.

17.0 Demonstrate an understanding of and be able to select and use information and communication technologies.--The student will be able to:

17.01 Create information and communication that allow information to be transferred from human to human, human to machine, machine to machine, and machine to human.

17.02 Consider factors that influence the design of a message, such as the intended audience, medium, purpose, and nature of the message.

17.03 Use symbols, measurements, and drawings to promote clear communication by providing a common language to express ideas.

21.0 Demonstrate proper and safe procedures while working with technological tools, apparatus, equipment, systems, and materials.--The student will be able to:

21.01 Follow classroom/laboratory safety rules and procedures.

21.02 Demonstrate good housekeeping at workstations within a classroom/laboratory.

21.03 Conduct classroom/laboratory activities and equipment operations in a safe manner.

## CTE Standards and Benchmarks

21.04 Exercise care and respect for all tools, equipment, and materials.

21.05 Select appropriate tools, machines, and equipment to accomplish a given task.

21.06 Identify color-coding safety standards.

21.07 Safely use hand tools and power equipment.

21.08 Explain fire prevention and safety precautions and practices for extinguishing fires.

21.09 Identify harmful effects/potential dangers of familiar hazardous substances/devices to people and the environment.

22.0 Exhibit positive human relations and leadership skills.--The student will be able to:

22.01 Perform roles in a student personnel system or in a career and technical student organization (CTSO).

22.02 Work cooperatively with others.

23.0 Discuss individual interests and aptitudes as they relate to a career.--The student will be able to:

23.01 Identify individual strengths and weaknesses.

23.02 Discuss individual interests related to a career.

23.03 List occupations, job requirements, and job opportunities in communication technology.

23.04 List academic and career programs at the secondary levels in communication technology.

### **Listed below are the eight career and education planning course standards:**

The student will be able to:

24.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.

25.0 Develop skills to locate, evaluate, and interpret career information.

26.0 Identify and demonstrate processes for making short and long term goals.

27.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.

28.0 Understand the relationship between educational achievement and career choices/postsecondary options.

29.0 Identify a career cluster and related pathways through an interest assessment that match career and education goals.

30.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.

31.0 Demonstrate knowledge of technology and its application in career fields/clusters.

## CTE Standards and Benchmarks

32.0 Demonstrate an application of basic digital publishing techniques.--The student will be able to:

32.01 Utilize digital publishing to combine input, editing, and output into a finished product.

32.02 Utilize the components of layouts including type, typography and illustration to digitally manipulate the elements of a published product.

32.03 Develop a web page using appropriate digital software.

32.04 Create a document on a digital publishing system by inputting existing digitized graphics or by digitizing original art or photographs on a digitizing scanner.

33.0 Identify and describe the major types of printing techniques used in print production.--The student will be able to:

33.01 Identify and explain standard printing processes including but not limited to: relief, gravure, screen process, and lithographic printing.

33.02 Utilize common design principles to create camera ready art.

33.03 Produce a printed product using a current printing method.

33.04 Utilize appropriate finishing techniques on a printed project.

34.0 Identify and demonstrate the role of electronic communication.--The student will be able to:

34.01 Explain how to create code, transmit, and receive messages using electronic devices.

34.02 List and explain the common communication categories.

34.03 Define and explain the use of telecommunications in everyday life.

34.04 Utilize a telecommunications device to transmit and receive an electronic message.

34.05 Produce an audio and/or visual product using electronic communication technology.

35.0 Identify and demonstrate the role of optical technology.--The student will be able to:

35.01 Identify the purposes and property of light as used in communication technology.

35.02 Explain how light signals are transmitted and received via different optical devices to include but not limited to: fiber optics, satellite communication, bandwidth, laser, and photography.

35.03 Generate a product using optical technology.

**\*\*\* Minimum Equipment and Tool needs for an Exploration of Communications Technology and Career Planning course \*\*\***

1. No more than a 2 students/computer ratio complete with built in DVD drive; appropriate furniture; lockdowns, and chairs
2. Class set plus 5 of textbooks
3. Software (all to include site licenses): publishing; design; word processing; office management; Photoshop or equal; illustrator or equal; 3D animation
4. One working color inkjet/laser printer
5. Internet access to the entire lab
6. One teacher computer station with an ergonomic chair (height adjustable, cushioned, on wheels)
7. One scanner
8. Three digital cameras



Florida Department of Education  
Student Performance Standards

**Course Title:** Exploration of Production Technology and Career Planning  
**Course Number:** 8600042  
**Course Length:** Semester  
**Teacher Certification:** Refer to the Program Structure section

**Course Description:**

The purpose of this course is to give students an opportunity to explore the area of production technology and its associated careers. Students will be given the opportunity to solve technological problems using a variety of tools, materials, processes and systems while gaining an understanding of the effects of production technology on our everyday lives.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate an understanding of the characteristics and scope of technology.--The student will be able to:
01.01	Develop new products and systems to solve problems or to help do things that could not be done without the help of technology.
01.02	Describe the development of technology as a human activity that is the result of individual or collective needs and the ability to be creative.
01.03	Explain how technology is closely linked with creativity, which has resulted in innovation.
01.04	Demonstrate how corporations can often create demand for a product by bringing it onto the market and advertising it.
02.0	Demonstrate an understanding of the core concepts of technology.--The student will be able to:
02.01	Describe technological systems including input, processes, output, and, at times, feedback.
02.02	Apply systems thinking, involving considering how every part relates to others.
02.03	Identify control systems having no feedback path and requiring human intervention, and control system using feedback.
02.04	Explain how technological systems can be connected to one another.
02.05	Repair malfunctions of any part of a system that may affect the function and quality of the system.
02.06	Compare and contrast requirements or parameters placed on the development of a product or system.
02.07	Compare and contrast trade-offs as a decision process recognizing the need for careful compromises among competing factors.
02.08	Perform basic maintenance as the process of inspecting and servicing a product or system on a regular basis in order for it to continue functioning properly, to extend its life, or to upgrade its capability.
02.09	Utilize controls and mechanisms or particular steps that people perform using information about the system that causes systems to change.

## CTE Standards and Benchmarks

03.0	Demonstrate an understanding of the relationships among technologies and the connection between technology and other fields of study.- -The student will be able to:
03.01	Modify the way technological systems interact with one another.
03.02	Apply a product, system, or environment developed for one setting in another setting.
03.03	Explain how knowledge gained from other fields of study has a direct effect on the development of technological products and systems.
04.0	Demonstrate an understanding of the cultural, social, economic, and political effects of technology.--The student will be able to:
04.01	Identify the ways that use of technology affects humans, including their safety, comfort, choices, and attitudes about technology's development and use.
04.02	Explain that technology, by itself, is neither good nor bad; but decisions about the use of products and systems can result in desirable or undesirable consequences.
04.03	Identify ethical issues associated with the development and use of technology.
04.04	Identify the economic, political, and cultural issues that are influenced by the development and use of technology.
05.0	Demonstrate an understanding of the effects of technology on the environment.--The student will be able to:
05.01	Describe the management of waste produced by technological systems as an important societal issue.
05.02	Describe how technologies can be used to repair damage caused by natural disasters and to break down waste from the use of various products and systems.
05.03	Make decisions about the development and use of technologies that put environmental and economic concerns in direct competition with one another.
06.0	Demonstrate an understanding of the role of society in the development and use of technology.--The student will be able to:
06.01	Describe the development of technologies that has resulted from the demands, values, and interests of individuals, businesses, industries, and societies.
06.02	Describe changes in society and the creation of new needs and wants caused by the use of inventions and innovations.
06.03	Understand social and cultural priorities and values that are reflected in technological devices.
06.04	Explain how meeting societal expectations is the driving force behind the acceptance and use of products and systems.
07.0	Demonstrate an understanding of the influence of technology on history.--The student will be able to:
07.01	Identify inventions and innovations that have evolved by using slow and methodical processes of tests and refinements.
07.02	Explain how the specialization of function has been at the heart of many technological improvements.
07.03	Identify the design and construction of structures for service or convenience evolving from the development of techniques for measurement, controlling systems, and the understanding of spatial relationships.
07.04	Explain that in the past, an invention or innovation was not usually developed with the knowledge of science.
08.0	Demonstrate an understanding of the attributes of design.--The student will be able to:

## CTE Standards and Benchmarks

08.01	Use design as a creative planning process that leads to useful products and systems.
08.02	Explain why there is no perfect design.
08.03	Evaluate criteria and constraints that are requirements for a design.
09.0	Demonstrate an understanding of engineering design.--The student will be able to:
09.01	Utilize the design process involving a set of steps, which can be performed in different sequences and repeated as needed.
09.02	Employ brainstorming as a group problem-solving design process in which each person in the group presents his or her ideas in an open forum.
09.03	Model, test, evaluate and modify designs to transform ideas into practical solutions.
10.0	Demonstrate an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.--The student will be able to:
10.01	Use troubleshooting as a problem-solving method used to identify the cause of a malfunction in a technological system.
10.02	Describe invention as a process of turning ideas and imagination into devices and systems and innovation as the process of modifying an existing product or system to improve it.
10.03	Identify technological problems that are best solved through experimentation.
11.0	Demonstrate the abilities to apply the design process.--The student will be able to:
11.01	Apply a design process to solve problems in and beyond the laboratory-classroom.
11.02	Specify criteria and constraints for the design.
11.03	Make two-dimensional and three-dimensional representations of the designed solution.
11.04	Test and evaluate the design in relation to pre-established requirements, such as criteria and constraints, and refine as needed.
11.05	Make a product or system and document the solution.
12.0	Demonstrate the abilities to use and maintain technological products and systems.--The student will be able to:
12.01	Use information provided in manuals, protocols, or by experienced people to see and understand how things work.
12.02	Use tools, materials, and machines safely to diagnose, adjust, and repair systems.
12.03	Use computers and calculators in various applications.
12.04	Operate and maintain systems in order to achieve a given purpose.
13.0	Demonstrate the abilities to assess the impact of products and systems.--The student will be able to:
13.01	Design and use instruments to gather data.
13.02	Use data collected to analyze and interpret trends in order to identify the positive or negative effects of a technology.
13.03	Identify trends and monitor potential consequences of technological development.

## CTE Standards and Benchmarks

13.04	Interpret and evaluate the accuracy of the information obtained and determine if it is useful.
19.0	Demonstrate an understanding of and be able to select and use manufacturing technologies.--The student will be able to:
19.01	Describe manufacturing systems using mechanical processes that change the form of materials through processes of separating, forming, combining, and conditioning them.
19.02	Classify manufactured goods as durable and non-durable.
19.03	Employ the manufacturing process including the designing, development, making, and servicing of products and systems.
19.04	Describe manufacturing technologies that are used to modify or alter manufactured products.
19.05	Explain that materials must first be located before they can be extracted from the earth through processes such as harvesting, drilling, and mining.
21.0	Demonstrate proper and safe procedures while working with technological tools, apparatus, equipment, systems, and materials.--The student will be able to:
21.01	Follow classroom/laboratory safety rules and procedures.
21.02	Demonstrate good housekeeping at workstations within a classroom/laboratory.
21.03	Conduct classroom/laboratory activities and equipment operations in a safe manner.
21.04	Exercise care and respect for all tools, equipment, and materials.
21.05	Select appropriate tools, machines, and equipment to accomplish a given task.
21.06	Identify color-coding safety standards.
21.07	Safely use hand tools and power equipment.
21.08	Explain fire prevention and safety precautions and practices for extinguishing fires.
21.09	Identify harmful effects/potential dangers of familiar hazardous substances/devices to people and the environment.
22.0	Exhibit positive human relations and leadership skills.--The student will be able to:
22.01	Perform roles in a student personnel system or in a career and technical student organization (CTSO).
22.02	Work cooperatively with others.
23.0	Discuss individual interests, aptitudes, and opportunities as they relate to a career.--The student will be able to:
23.01	Identify individual strengths and weaknesses.
23.02	Discuss individual interests related to a career.
23.03	List occupations, job requirements, and job opportunities in production technology.
23.04	List occupational training programs and academic programs at the secondary/postsecondary levels in production technology.

## CTE Standards and Benchmarks

**Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes.**

The student will be able to:

24.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.

25.0 Develop skills to locate, evaluate, and interpret career information.

26.0 Identify and demonstrate processes for making short and long term goals.

27.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.

28.0 Understand the relationship between educational achievement and career choices/postsecondary options.

29.0 Identify a career cluster and related pathways through an interest assessment that match career and education goals.

30.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.

31.0 Demonstrate knowledge of technology and its application in career fields/clusters.

36.0 Identify evolving technologies of production systems.--The student will be able to:

36.01 List evolving technologies of manufacturing and construction industries.

36.02 Discuss the evolution of technologies related to manufacturing systems and construction processes.

36.03 Brainstorm futuristic production systems.

37.0 Perform special skills unique to manufacturing technology.--The student will be able to:

37.01 Design a product for custom or mass production manufacturing.

37.02 Plan a mass production system for manufacturing a product.

37.03 Perform materials forming practices such as casting or molding, and compressing or stretching.

37.04 Perform materials separating practices such as shearing, chip removing, and other separating processes.

37.05 Perform materials conditioning practices such as heat treating, physical conditioning, or through chemical reactions.

37.06 Combine components through mixing, coating, bonding, and mechanical fastening.

37.07 Assemble a product or a subassembly of a product.

38.0 Express knowledge of factors that impact manufacturing technology and practices.--The student will be able to:

38.01 Explain economic factors that impact on manufacturing technology.

## CTE Standards and Benchmarks

38.02 Research and identify consumer demands for a manufactured product.

38.03 Identify sources of raw materials and/or standard stock materials needed for a manufactured product.

38.04 Interview, hire, train, or promote an applicant or employee for a simulated mass production manufacturing activity.

38.05 Define the terms "organized labor" and "collective bargaining."

38.06 Prepare a plan for marketing and distributing a manufactured product.

Florida Department of Education  
Student Performance Standards

**Course Title:** Exploration of Aerospace Technology and Career Planning  
**Course Number:** 8600052  
**Course Length:** Semester  
**Teacher Certification:** Refer to the Program Structure section

**Course Description:**

The purpose of this course is to give students an opportunity to explore the area of aerospace technology and its associated careers. Students will be given the opportunity to solve technological problems using a variety of tools, materials, processes and systems while gaining an understanding of the effects of aerospace technology on our everyday lives.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate an understanding of the characteristics and scope of technology.--The student will be able to:
01.01	Describe the development of technology as a human activity that is the result of individual or collective needs and the ability to be creative.
01.02	Explain how technology is closely linked with creativity, which has resulted in innovation.
01.03	Demonstrate how corporations can often create demand for a product by bringing it onto the market and advertising it.
01.04	Describe the development of technology as a human activity that is the result of individual or collective needs and the ability to be creative.
02.0	Demonstrate an understanding of the core concepts of technology.--The student will be able to:
02.01	Describe technological systems including input, processes, output, and, at times, feedback.
02.02	Apply systems thinking, involving considering how every part relates to others.
02.03	Identify control systems having no feedback path and requiring human intervention, and control systems using feedback.
02.04	Explain how technological systems can be connected to one another.
02.05	Repair malfunctions of any part of a system that may affect the function and quality of the system.
02.06	Compare and contrast requirements or parameters placed on the development of a product or system.
02.07	Compare and contrast trade-offs as a decision process recognizing the need for careful compromises among competing factors.
02.08	Describe different technologies that involve different sets of processes.
02.09	Perform basic maintenance as the process of inspecting and servicing a product or system on a regular basis in order for it to continue functioning properly, to extend its life, or to upgrade its capability.

## CTE Standards and Benchmarks

02.10	Utilize controls and mechanisms or particular steps that people perform using information about the system that causes systems to change.
03.0	Demonstrate an understanding of the relationships among technologies and the connection between technology and other fields of study.- -The student will be able to:
03.01	Modify the way technological systems interact with one another.
03.02	Apply a product, system, or environment developed for one setting in another setting.
03.03	Explain how knowledge gained from other fields of study has a direct effect on the development of technological products and systems.
04.0	Demonstrate an understanding of the cultural, social, economic, and political effects of technology.--The student will be able to:
04.01	Identify the ways that use of technology affects humans, including their safety, comfort, choices, and attitudes about technology's development and use.
04.02	Explain that technology, by itself, is neither good nor bad; but decisions about the use of products and systems can result in desirable or undesirable consequences.
04.03	Identify ethical issues associated with the development and use of technology.
04.04	Identify the economic, political, and cultural issues that are influenced by the development and use of technology.
05.0	Demonstrate an understanding of the effects of technology on the environment.--The student will be able to:
05.01	Describe the management of waste produced by technological systems as an important societal issue.
05.02	Describe how technologies can be used to repair damage and to break down waste from the use of various products and systems.
05.03	Make decisions about the development and use of technologies that put environmental and economic concerns in direct competition with one another.
06.0	Demonstrate an understanding of the role of society in the development and use of technology.--The student will be able to:
06.01	Describe the development of technologies that has resulted from the demands, values, and interests of individuals, businesses, industries, and societies.
06.02	Describe changes in society and the creation of new needs and wants caused by the use of inventions and innovations.
06.03	Understand social and cultural priorities and values that are reflected in technological devices.
06.04	Explain how meeting societal expectations is the driving force behind the acceptance and use of products and systems.
07.0	Demonstrate an understanding of the influence of technology on history.--The student will be able to:
07.01	Identify inventions and innovations that have evolved by using slow and methodical processes of tests and refinements.
07.02	Explain how the specialization of function has been at the heart of many technological improvements.
07.03	Identify the design and construction of structures for service or convenience evolving from the development of techniques for measurement, controlling systems, and the understanding of spatial relationships.
07.04	Investigate how, that in the past, an invention or innovation was not usually developed with the knowledge of science.



## CTE Standards and Benchmarks

08.0 Demonstrate an understanding of the attributes of design.--The student will be able to:

08.01 Use design as a creative planning process that leads to useful products and systems.

08.02 Explain why there is no perfect design.

08.03 Evaluate criteria and constraints that are requirements for a design.

09.0 Demonstrate an understanding of engineering design.--The student will be able to:

09.01 Utilize the design process involving a set of steps, which can be performed in different sequences and repeated as needed.

09.02 Employ brainstorming as a group problem-solving design process in which each person in the group presents his or her ideas in an open forum.

09.03 Model, test, evaluate and modify designs to transform ideas into practical solutions.

10.0 Demonstrate an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.--The student will be able to:

10.01 Use troubleshooting as a problem-solving method used to identify the cause of a malfunction in a technological system.

10.02 Describe invention as a process of turning ideas and imagination into devices and systems and innovation as the process of modifying an existing product or system to improve it.

10.03 Identify technological problems that are best solved through experimentation.

11.0 Demonstrate the abilities to apply the design process.--The student will be able to:

11.01 Apply a design process to solve problems in and beyond the laboratory-classroom.

11.02 Specify criteria and constraints for the design.

11.03 Make two-dimensional and three-dimensional representations of the designed solution.

11.04 Test and evaluate the design in relation to pre-established requirements, such as criteria and constraints, and refine as needed.

11.05 Make a product or system and document the solution.

12.0 Demonstrate the abilities to use and maintain technological products and systems.--The student will be able to:

12.01 Use information provided in manuals, protocols, or by experienced people to see and understand how things work.

12.02 Use tools, materials, and machines safely to diagnose, adjust, and repair systems.

12.03 Use computers and calculators in various applications.

12.04 Operate and maintain systems in order to achieve a given purpose.

13.0 Demonstrate the abilities to assess the impact of products and systems.--The student will be able to:

13.01 Design and use instruments to gather data.

13.02 Use data collected to analyze and interpret trends in order to identify the positive or negative effects of a technology.

## CTE Standards and Benchmarks

13.03 Identify trends and monitor potential consequences of technological development.

13.04 Interpret and evaluate the accuracy of the information obtained and determine if it is useful.

17.0 Demonstrate an understanding of and be able to select and use information and communication technologies.--The student will be able to:

17.01 Describe communication systems made up of a source, encoder, transmitter, receiver, decoder, and destination (e.g. phonetic alphabet).

17.02 Use symbols, measurements, and drawings to promote clear communication by providing a common language to express ideas (e.g. airport symbols and signs).

40.0 Demonstrate an understanding of and be able to select and use aerospace technologies.--The student will be able to:

40.01 Describe subsystems of aerospace vehicles, such as structural, propulsion, suspension, guidance, control, and support that must function together for a system to work effectively.

40.02 Employ processes, such as receiving, holding, storing, loading, moving, unloading, delivering, evaluating, marketing, managing, communicating, and using conventions that are necessary for the entire transportation system to operate efficiently.

21.0 Demonstrate proper and safe procedures while working with technological tools, apparatus, equipment, systems, and materials.--The student will be able to:

21.01 Follow classroom/laboratory safety rules and procedures.

21.02 Demonstrate good housekeeping at workstations within a classroom/laboratory.

21.03 Conduct classroom/laboratory activities and equipment operations in a safe manner.

21.04 Exercise care and respect for all tools, equipment, and materials.

21.05 Select appropriate tools, machines, and equipment to accomplish a given task.

21.06 Identify color-coding safety standards.

21.07 Safely use hand tools and power equipment.

21.08 Explain fire prevention and safety precautions and practices for extinguishing fires.

21.09 Identify harmful effects/potential dangers of familiar hazardous substances/devices to people and the environment.

22.0 Exhibit positive human relations and leadership skills.--The student will be able to:

22.01 Perform roles in a student personnel system or in a career and technical student organization (CTSO).

22.02 Work cooperatively with others.

**Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes.**

The student will be able to:

24.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.

## CTE Standards and Benchmarks

25.0	Develop skills to locate, evaluate, and interpret career information.
26.0	Identify and demonstrate processes for making short and long term goals.
27.0	Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
28.0	Understand the relationship between educational achievement and career choices/postsecondary options.
29.0	Identify a career cluster and related pathways through an interest assessment that match career and education goals.
30.0	Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
31.0	Demonstrate knowledge of technology and its application in career fields/clusters.
39.0	Discuss educational and training requirements as they relate to various aerospace careers.--The student will be able to:
39.01	Research and identify various aerospace career choices.
39.02	Discuss individual interests related to a career.
39.03	List occupations, job requirements, and job opportunities in aerospace technology.
39.04	List occupational training programs and academic programs at the secondary/postsecondary levels in aerospace technology.
41.0	Demonstrate knowledge of the basic principles of aerostatics and aerodynamics.--The student will be able to:
41.01	Define terminology associated with aerostatics and aerodynamics.
41.02	Explain how buoyancy principles affect an object in a fluid.
41.03	Explain how Bernoulli's Principle applies to an object in flight.
41.04	Identify and describe basic forces acting on an object in flight.
41.05	Build an aerostatic vehicle.
41.06	Build an aerodynamic vehicle.
42.0	Identify and demonstrate knowledge of both liquid and solid propellant rocket propulsion systems.--The student will be able to:
42.01	Define technical terminology associated with propulsion systems.
42.02	Identify parts of a solid-propellant rocket engine.
42.03	Identify parts of a liquid-propellant rocket engine.
42.04	Discuss the principles of rocket propulsion.
42.05	Construct a solid- or liquid- propellant model rocket.
43.0	Define and describe the stages and forms of interference in basic satellite systems.--The student will be able to:

## CTE Standards and Benchmarks

43.01 Describe the basic functions and advantages of a communications satellite.

43.02 Describe the basic functions and advantages of a weather satellite.

43.03 Describe the basic functions and advantages of a navigation satellite.

44.0 Become familiar with the basic information provided by a sectional chart.--The student will be able to:

44.01 Extract and utilize information from an aeronautical chart legend.

44.02 Identify locations on an aeronautical chart using latitude and longitude

44.03 Differentiate between statute and nautical miles.

44.04 Determine a course and distance between two points on an aeronautical chart using a navigational plotter.

45.0 Describe and define different categories of aviation.--The student will be able to:

45.01 Describe military aviation and be able to identify military aircraft types and missions.

45.02 Define general aviation (including business and executive) and be able identify general aviation aircraft types.

45.03 Define air carrier and be able identify air carrier aircraft types.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Exploration of Transportation Technology and Career Planning  
**Course Number:** 8600242  
**Course Length:** Semester  
**Teacher Certification:** Refer to the Program Structure section

**Course Description:**

The purpose of this course is to give students an opportunity to explore the area of transportation technology and its associated careers. Students will be given the opportunity to solve technological problems using a variety of tools, materials, processes and systems while gaining an understanding of the effects of transportation technology on our everyday lives.

<b>CTE Standards and Benchmarks</b>	
<b>01.0</b>	Demonstrate an understanding of the characteristics and scope of technology.--The student will be able to:
01.01	Develop new products and systems to solve problems or to help do things that could not be done without the help of technology.
01.02	Describe the development of technology as a human activity that is the result of individual or collective needs and the ability to be creative.
01.03	Explain how technology is closely linked with creativity, which has resulted in innovation.
01.04	Demonstrate how corporations can often create demand for a product by bringing it onto the market and advertising it.
<b>02.0</b>	Demonstrate an understanding of the core concepts of technology.--The student will be able to:
02.01	Describe technological systems including input, processes, output, and, at times, feedback.
02.02	Apply systems thinking, involving considering how every part relates to others.
02.03	Identify control systems having no feedback path and requiring human intervention, and control systems using feedback.
02.04	Explain how technological systems can be connected to one another.
02.05	Repair malfunctions of any part of a system that may affect the function and quality of the system.
02.06	Compare and contrast requirements or parameters placed on the development of a product or system.
02.07	Compare and contrast trade-offs as a decision process recognizing the need for careful compromises among competing factors.
02.08	Describe different technologies that involve different sets of processes.
02.09	Perform basic maintenance as the process of inspecting and servicing a product or system on a regular basis in order for it to continue functioning properly, to extend its life, or to upgrade its capability.

## CTE Standards and Benchmarks

02.10	Utilize controls and mechanisms or particular steps that people perform using information about the system that causes systems to change.
03.0	Demonstrate an understanding of the relationships among technologies and the connection between technology and other fields of study.- -The student will be able to:
03.01	Modify the way technological systems interact with one another.
03.02	Apply a product, system, or environment developed for one setting in another setting.
03.03	Explain how knowledge gained from other fields of study has a direct effect on the development of technological products and systems.
04.0	Demonstrate an understanding of the cultural, social, economic, and political effects of technology.--The student will be able to:
04.01	Identify the ways that use of technology affects humans, including their safety, comfort, choices, and attitudes about technology's development and use.
04.02	Explain that technology, by itself, is neither good nor bad; but decisions about the use of products and systems can result in desirable or undesirable consequences.
04.03	Identify ethical issues associated with the development and use of technology.
04.04	Identify the economic, political, and cultural issues that are influenced by the development and use of technology.
05.0	Demonstrate an understanding of the effects of technology on the environment.--The student will be able to:
05.01	Describe the management of waste produced by technological systems as an important societal issue.
05.02	Describe how technologies can be used to repair damage caused by natural disasters and to break down waste from the use of various products and systems.
05.03	Make decisions about the development and use of technologies that put environmental and economic concerns in direct competition with one another.
06.0	Demonstrate an understanding of the role of society in the development and use of technology.--The student will be able to:
06.01	Describe the development of technologies that has resulted from the demands, values, and interests of individuals, businesses, industries, and societies.
06.02	Describe changes in society and the creation of new needs and wants caused by the use of inventions and innovations.
06.03	Understand social and cultural priorities and values that are reflected in technological devices.
06.04	Explain how meeting societal expectations is the driving force behind the acceptance and use of products and systems.
07.0	Demonstrate an understanding of the influence of technology on history.--The student will be able to:
07.01	Identify inventions and innovations that have evolved by using slow and methodical processes of tests and refinements.
07.02	Explain how the specialization of function has been at the heart of many technological improvements.
07.03	Identify the design and construction of structures for service or convenience evolving from the development of techniques for measurement, controlling systems, and the understanding of spatial relationships.
07.04	Investigate how, that in the past, an invention or innovation was not usually developed with the knowledge of science.

## CTE Standards and Benchmarks

08.0 Demonstrate an understanding of the attributes of design.--The student will be able to:

08.01 Use design as a creative planning process that leads to useful products and systems.

08.02 Explain why there is no perfect design.

08.03 Evaluate criteria and constraints that are requirements for a design.

09.0 Demonstrate an understanding of engineering design.--The student will be able to:

09.01 Utilize the design process involving a set of steps, which can be performed in different sequences and repeated as needed.

09.02 Employ brainstorming as a group problem-solving design process in which each person in the group presents his or her ideas in an open forum.

09.03 Model, test, evaluate and modify designs to transform ideas into practical solutions.

10.0 Demonstrate an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.--The student will be able to:

10.01 Use troubleshooting as a problem-solving method used to identify the cause of a malfunction in a technological system.

10.02 Describe invention as a process of turning ideas and imagination into devices and systems and innovation as the process of modifying an existing product or system to improve it.

10.03 Identify technological problems that are best solved through experimentation.

11.0 Demonstrate the abilities to apply the design process.--The student will be able to:

11.01 Apply a design process to solve problems in and beyond the laboratory-classroom.

11.02 Specify criteria and constraints for the design.

11.03 Make two-dimensional and three-dimensional representations of the designed solution.

11.04 Test and evaluate the design in relation to pre-established requirements, such as criteria and constraints, and refine as needed.

11.05 Make a product or system and document the solution.

12.0 Demonstrate the abilities to use and maintain technological products and systems.--The student will be able to:

12.01 Use information provided in manuals, protocols, or by experienced people to see and understand how things work.

12.02 Use tools, materials, and machines safely to diagnose, adjust, and repair systems.

12.03 Use computers and calculators in various applications.

12.04 Operate and maintain systems in order to achieve a given purpose.

13.0 Demonstrate the abilities to assess the impact of products and systems.--The student will be able to:

13.01 Design and use instruments to gather data.

13.02 Use data collected to analyze and interpret trends in order to identify the positive or negative effects of a technology.

## CTE Standards and Benchmarks

13.03	Identify trends and monitor potential consequences of technological development.
13.04	Interpret and evaluate the accuracy of the information obtained and determine if it is useful.
16.0	Demonstrate an understanding of and be able to select and use energy and power technologies.--The student will be able to:
16.01	Define energy as the capacity to do work.
16.02	Explain how energy can be used to do work, using many processes.
16.03	Define power as the rate at which energy is converted from one form to another or transferred from one place to another, or the rate at which work is done.
16.04	Describe power systems used to drive and provide propulsion to other technological products and systems.
16.05	Explain how much of the energy used in our environment is not used efficiently.
18.0	Demonstrate an understanding of and be able to select and use transportation technologies.--The student will be able to:
18.01	Describe how transporting people and goods involve a combination of individuals and vehicles.
18.02	Describe subsystems of transportation vehicles, such as structural, propulsion, suspension, guidance, control, and support that must function together for a system to work effectively.
18.03	Identify governmental regulations that influence the design and operation of transportation systems.
18.04	Employ processes, such as receiving, holding, storing, loading, moving, unloading, delivering, evaluating, marketing, managing, communicating, and using conventions that are necessary for the entire transportation system to operate efficiently.
21.0	Demonstrate proper and safe procedures while working with technological tools, apparatus, equipment, systems, and materials.--The student will be able to:
21.01	Follow classroom/laboratory safety rules and procedures.
21.02	Demonstrate good housekeeping at workstations within a classroom/laboratory.
21.03	Conduct classroom/laboratory activities and equipment operations in a safe manner.
21.04	Exercise care and respect for all tools, equipment, and materials.
21.05	Select appropriate tools, machines, and equipment to accomplish a given task.
21.06	Identify color-coding safety standards.
21.07	Safely use hand tools and power equipment.
21.08	Explain fire prevention and safety precautions and practices for extinguishing fires.
21.09	Identify harmful effects/potential dangers of familiar hazardous substances/devices to people and the environment.
22.0	Exhibit positive human relations and leadership skills. – The student will be able to:
22.01	Perform roles in a student personnel system or in a career and technical student organization (CTSO).
22.02	Work cooperatively with others.



## CTE Standards and Benchmarks

23.0 Discuss individual interests and aptitudes as they relate to a career.--The student will be able to:

23.01 Identify individual strengths and weaknesses.

23.02 Discuss individual interests related to a career.

23.03 List occupations, job requirements, and job opportunities in transportation technology.

23.04 List occupational training programs and academic programs at the secondary/postsecondary levels in transportation technology.

### **Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes.**

The student will be able to:

24.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.

25.0 Develop skills to locate, evaluate, and interpret career information.

26.0 Identify and demonstrate processes for making short and long term goals.

27.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.

28.0 Understand the relationship between educational achievement and career choices/postsecondary options.

29.0 Identify a career cluster and related pathways through an interest assessment that match career and education goals.

30.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.

31.0 Demonstrate knowledge of technology and its application in career fields/clusters.

46.0 Perform special skills unique to transportation technologies.--The student will be able to:

46.01 Disassemble and reassemble or perform maintenance on a muscle-powered bicycle.

46.02 Disassemble and reassemble or perform maintenance on a pneumatic or hydraulic device.

46.03 Disassemble and reassemble or perform maintenance on an internal combustion engine.

46.04 Disassemble and reassemble or perform maintenance on an electrical motor, generator, or alternator.

46.05 Construct, maintain, or repair a land, water, or air/space vehicle.

47.0 Express knowledge of the industries that deal with transportation technology.--The student will be able to:

47.01 Describe power and energy applications in transportation technology.

47.02 Identify transportation products that have been developed by industries.

## CTE Standards and Benchmarks

47.03 List and describe transportation systems produced or used by industries.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Exploration of Power and Energy Technology and Career Planning  
**Course Number:** 8600252  
**Course Length:** Semester  
**Teacher Certification:** Refer to the Program Structure section

**Course Description:**

The purpose of this course is to give students an opportunity to explore the area of power and energy technology and its associated careers. Students will be given the opportunity to solve technological problems using a variety of tools, materials, processes and systems while gaining an understanding of the effects of power and energy technology on our everyday lives.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate an understanding of the characteristics and scope of technology.--The student will be able to:
01.01	Develop new products and systems to solve problems or to help do things that could not be done without the help of technology.
01.02	Describe the development of technology as a human activity that is the result of individual or collective needs and the ability to be creative.
01.03	Explain how technology is closely linked with creativity, which has resulted in innovation.
01.04	Demonstrate how corporations can often create demand for a product by bringing it onto the market and advertising it.
02.0	Demonstrate an understanding of the core concepts of technology.--The student will be able to:
02.01	Describe technological systems including input, processes, output, and, at times, feedback.
02.02	Apply systems thinking, involving considering how every part relates to others.
02.03	Identify control systems having no feedback path and requiring human intervention, and control systems using feedback.
02.04	Explain how technological systems can be connected to one another.
02.05	Repair malfunctions of any part of a system that may affect the function and quality of the system.
02.06	Compare and contrast requirements or parameters placed on the development of a product or system.
02.07	Compare and contrast trade-offs as a decision process recognizing the need for careful compromises among competing factors.
02.08	Describe different technologies that involve different sets of processes.
02.09	Perform basic maintenance as the process of inspecting and servicing a product or system on a regular basis in order for it to continue functioning properly, to extend its life, or to upgrade its capability.

## CTE Standards and Benchmarks

02.10	Utilize controls and mechanisms or particular steps that people perform using information about the system that causes systems to change.
03.0	Demonstrate an understanding of the relationships among technologies and the connection between technology and other fields of study.- -The student will be able to:
03.01	Modify the way technological systems interact with one another.
03.02	Apply a product, system, or environment developed for one setting in another setting.
03.03	Explain how knowledge gained from other fields of study has a direct effect on the development of technological products and systems.
04.0	Demonstrate an understanding of the cultural, social, economic, and political effects of technology.--The student will be able to:
04.01	Identify the ways that use of technology affects humans, including their safety, comfort, choices, and attitudes about technology's development and use.
04.02	Explain that technology, by itself, is neither good nor bad; but decisions about the use of products and systems can result in desirable or undesirable consequences.
04.03	Identify ethical issues associated with the development and use of technology.
04.04	Identify the economic, political, and cultural issues that are influenced by the development and use of technology.
05.0	Demonstrate an understanding of the effects of technology on the environment.--The student will be able to:
05.01	Describe the management of waste produced by technological systems as an important societal issue.
05.02	Describe how technologies can be used to repair damage and to break down waste from the use of various products and systems.
05.03	Make decisions about the development and use of technologies that put environmental and economic concerns in direct competition with one another.
06.0	Demonstrate an understanding of the role of society in the development and use of technology.--The student will be able to:
06.01	Describe the development of technologies that has resulted from the demands, values, and interests of individuals, businesses, industries, and societies.
06.02	Describe changes in society and the creation of new needs and wants caused by the use of inventions and innovations.
06.03	Understand social and cultural priorities and values that are reflected in technological devices.
06.04	Explain how meeting societal expectations is the driving force behind the acceptance and use of products and systems.
07.0	Demonstrate an understanding of the influence of technology on history.--The student will be able to:
07.01	Identify inventions and innovations that have evolved by using slow and methodical processes of tests and refinements.
07.02	Explain how the specialization of function has been at the heart of many technological improvements.
07.03	Identify the design and construction of structures for service or convenience evolving from the development of techniques for measurement, controlling systems, and the understanding of spatial relationships.
07.04	Investigate how, that in the past, an invention or innovation was not usually developed with the knowledge of science.

## CTE Standards and Benchmarks

08.0 Demonstrate an understanding of the attributes of design.--The student will be able to:

08.01 Use design as a creative planning process that leads to useful products and systems.

08.02 Explain why there is no perfect design.

08.03 Evaluate criteria and constraints that are requirements for a design.

09.0 Demonstrate an understanding of engineering design.--The student will be able to:

09.01 Utilize the design process involving a set of steps, which can be performed in different sequences and repeated as needed.

09.02 Employ brainstorming as a group problem-solving design process in which each person in the group presents his or her ideas in an open forum.

09.03 Model, test, evaluate and modify designs to transform ideas into practical solutions.

10.0 Demonstrate an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.--The student will be able to:

10.01 Use troubleshooting as a problem-solving method used to identify the cause of a malfunction in a technological system.

10.02 Describe invention as a process of turning ideas and imagination into devices and systems and innovation as the process of modifying an existing product or system to improve it.

10.03 Identify technological problems that are best solved through experimentation.

11.0 Demonstrate the abilities to apply the design process.--The student will be able to:

11.01 Apply a design process to solve problems in and beyond the laboratory-classroom.

11.02 Specify criteria and constraints for the design.

11.03 Make two-dimensional and three-dimensional representations of the designed solution.

11.04 Test and evaluate the design in relation to pre-established requirements, such as criteria and constraints, and refine as needed.

11.05 Make a product or system and document the solution.

12.0 Demonstrate the abilities to use and maintain technological products and systems.--The student will be able to:

12.01 Use information provided in manuals, protocols, or by experienced people to see and understand how things work.

12.02 Use tools, materials, and machines safely to diagnose, adjust, and repair systems.

12.03 Use computers and calculators in various applications.

12.04 Operate and maintain systems in order to achieve a given purpose.

13.0 Demonstrate the abilities to assess the impact of products and systems.--The student will be able to:

13.01 Design and use instruments to gather data.

13.02 Use data collected to analyze and interpret trends in order to identify the positive or negative effects of a technology.

## CTE Standards and Benchmarks

13.03	Identify trends and monitor potential consequences of technological development.
13.04	Interpret and evaluate the accuracy of the information obtained and determine if it is useful.
16.0	Demonstrate an understanding of and be able to select and use energy and power technologies.--The student will be able to:
16.01	Define energy as the capacity to do work.
16.02	Explain how energy can be used to do work, using many processes.
16.03	Define power as the rate at which energy is converted from one form to another or transferred from one place to another, or the rate at which work is done.
16.04	Describe power systems used to drive and provide propulsion to other technological products and systems.
16.05	Explain how much of the energy used in our environment is not used efficiently.
21.0	Demonstrate proper and safe procedures while working with technological tools, apparatus, equipment, systems, and materials.--The student will be able to:
21.01	Follow classroom/laboratory safety rules and procedures.
21.02	Demonstrate good housekeeping at workstations within a classroom/laboratory.
21.03	Conduct classroom/laboratory activities and equipment operations in a safe manner.
21.04	Exercise care and respect for all tools, equipment, and materials.
21.05	Select appropriate tools, machines, and equipment to accomplish a given task.
21.06	Identify color-coding safety standards.
21.07	Safely use hand tools and power equipment.
21.08	Explain fire prevention and safety precautions and practices for extinguishing fires.
21.09	Identify harmful effects/potential dangers of familiar hazardous substances/devices to people and the environment.
22.0	Exhibit positive human relations and leadership skills.--The student will be able to:
22.01	Perform roles in a student personnel system or in a career and technical student organization (CTSO).
22.02	Work cooperatively with others.
23.0	Discuss individual interests, aptitudes, and opportunities as they relate to a career.--The student will be able to:
23.01	Identify individual strengths and weaknesses.
23.02	Discuss individual interests related to a career.
23.03	List occupations, job requirements, and employment opportunities in power energy technology.
23.04	List occupational training programs and academic programs available at the secondary and postsecondary levels in power and energy technologies.

## CTE Standards and Benchmarks

**Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes.**

The student will be able to:

24.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.

25.0 Develop skills to locate, evaluate, and interpret career information.

26.0 Identify and demonstrate processes for making short and long term goals.

27.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.

28.0 Understand the relationship between educational achievement and career choices/postsecondary options.

29.0 Identify a career cluster and related pathways through an interest assessment that match career and education goals.

30.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.

31.0 Demonstrate knowledge of technology and its application in career fields/clusters.

48.0 Perform special skills unique to power and energy technologies.--The student will be able to:

48.01 Disassemble and reassemble or perform maintenance on a human-powered device.

48.02 Disassemble and reassemble or perform maintenance on a pneumatic or hydraulic device.

48.03 Disassemble and reassemble or perform maintenance on an internal combustion engine.

48.04 Disassemble and reassemble or perform maintenance on an electrical motor, generator, or alternator.

48.05 Construct a water-powered, wind-powered, steam-powered, thermal-powered, or solar-powered device.

49.0 Express knowledge of the industries that deal with power and energy technology.--The student will be able to:

49.01 Identify the technologies that supply or control energy sources.

49.02 Identify technologies that produce power systems.

49.03 Describe power and energy applications in everyday life.

49.04 List energy systems produced or used by industries.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Exploration of Engineering Technology and Career Planning  
**Course Number:** 8600062  
**Course Length:** Semester  
**Teacher Certification:** Refer to the Program Structure section

**Course Description:**

The purpose of this course is to give students an opportunity to explore the area of engineering technology and its associated careers. Students will be given the opportunity to solve technological problems using a variety of tools, materials, processes and systems while gaining an understanding of the effects of engineering technology on our everyday lives.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate an understanding of the characteristics and scope of technology.--The student will be able to:
01.01	Develop new products and systems to solve problems or to help do things that could not be done without the help of technology.
01.02	Describe the development of technology as a human activity that is the result of individual or collective needs and the ability to be creative.
01.03	Explain how technology is closely linked with creativity, which has resulted in innovation.
01.04	Demonstrate how corporations can often create demand for a product by bringing it onto the market and advertising it.
02.0	Demonstrate an understanding of the core concepts of technology.--The student will be able to:
02.01	Describe technological systems including input, processes, output, and, at times, feedback.
02.02	Apply systems thinking, involving considering how every part relates to others.
02.03	Identify control systems having no feedback path and requiring human intervention, and control systems using feedback.
02.04	Explain how technological systems can be connected to one another.
02.05	Repair malfunctions of any part of a system that may affect the function and quality of the system.
02.06	Compare and contrast requirements or parameters placed on the development of a product or system.
02.07	Compare and contrast trade-offs as a decision process recognizing the need for careful compromises among competing factors.
02.08	Describe different technologies that involve different sets of processes.
02.09	Perform basic maintenance as the process of inspecting and servicing a product or system on a regular basis in order for it to continue functioning properly, to extend its life, or to upgrade its capability.



## CTE Standards and Benchmarks

02.10	Utilize controls and mechanisms or particular steps that people perform using information about the system that causes systems to change.
03.0	Demonstrate an understanding of the relationships among technologies and the connection between technology and other fields of study.- -The student will be able to:
03.01	Modify the way technological systems interact with one another.
03.02	Apply a product, system, or environment developed for one setting in another setting.
03.03	Explain how knowledge gained from other fields of study has a direct effect on the development of technological products and systems.
04.0	Demonstrate an understanding of the cultural, social, economic, and political effects of technology.--The student will be able to:
04.01	Identify the ways that use of technology affects humans, including their safety, comfort, choices, and attitudes about technology's development and use.
04.02	Explain that technology, by itself, is neither good nor bad; but decisions about the use of products and systems can result in desirable or undesirable consequences.
04.03	Identify ethical issues associated with the development and use of technology.
04.04	Identify the economic, political, and cultural issues that are influenced by the development and use of technology.
05.0	Demonstrate an understanding of the effects of technology on the environment.--The student will be able to:
05.01	Describe the management of waste produced by technological systems as an important societal issue.
05.02	Describe how technologies can be used to repair damage caused by natural disasters and to break down waste from the use of various products and systems.
05.03	Make decisions about the development and use of technologies that put environmental and economic concerns in direct competition with one another.
06.0	Demonstrate an understanding of the role of society in the development and use of technology.--The student will be able to:
06.01	Describe the development of technologies that has resulted from the demands, values, and interests of individuals, businesses, industries, and societies.
06.02	Describe changes in society and the creation of new needs and wants caused by the use of inventions and innovations.
06.03	Understand social and cultural priorities and values that are reflected in technological devices.
06.04	Explain how meeting societal expectations is the driving force behind the acceptance and use of products and systems.
07.0	Demonstrate an understanding of the influence of technology on history.--The student will be able to:
07.01	Identify inventions and innovations that have evolved by using slow and methodical processes of tests and refinements.
07.02	Explain how the specialization of function has been at the heart of many technological improvements.
07.03	Identify the design and construction of structures for service or convenience evolving from the development of techniques for measurement, controlling systems, and the understanding of spatial relationships.
07.04	Investigate how, that in the past, an invention or innovation was not usually developed with the knowledge of science.

## CTE Standards and Benchmarks

08.0 Demonstrate an understanding of the attributes of design.--The student will be able to:

08.01 Use design as a creative planning process that leads to useful products and systems.

08.02 Explain why there is no perfect design.

08.03 Evaluate criteria and constraints that are requirements for a design.

09.0 Demonstrate an understanding of engineering design.--The student will be able to:

09.01 Utilize the design process involving a set of steps, which can be performed in different sequences and repeated as needed.

09.02 Employ brainstorming as a group problem-solving design process in which each person in the group presents his or her ideas in an open forum.

09.03 Model, test, evaluate and modify designs to transform ideas into practical solutions.

10.0 Demonstrate an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.--The student will be able to:

10.01 Use troubleshooting as a problem-solving method used to identify the cause of a malfunction in a technological system.

10.02 Describe invention as a process of turning ideas and imagination into devices and systems and innovation as the process of modifying an existing product or system to improve it.

10.03 Identify technological problems that are best solved through experimentation.

11.0 Demonstrate the abilities to apply the design process.--The student will be able to:

11.01 Apply a design process to solve problems in and beyond the laboratory-classroom.

11.02 Specify criteria and constraints for the design.

11.03 Make two-dimensional and three-dimensional representations of the designed solution.

11.04 Test and evaluate the design in relation to pre-established requirements, such as criteria and constraints, and refine as needed.

11.05 Make a product or system and document the solution.

12.0 Demonstrate the abilities to use and maintain technological products and systems.--The student will be able to:

12.01 Use information provided in manuals, protocols, or by experienced people to see and understand how things work.

12.02 Use tools, materials, and machines safely to diagnose, adjust, and repair systems.

12.03 Use computers and calculators in various applications.

12.04 Operate and maintain systems in order to achieve a given purpose.

13.0 Demonstrate the abilities to assess the impact of products and systems.--The student will be able to:

13.01 Design and use instruments to gather data.

13.02 Use data collected to analyze and interpret trends in order to identify the positive or negative effects of a technology.

## CTE Standards and Benchmarks

13.03 Identify trends and monitor potential consequences of technological development.

13.04 Interpret and evaluate the accuracy of the information obtained and determine if it is useful.

21.0 Demonstrate proper and safe procedures while working with technological tools, apparatus, equipment, systems, and materials.--The student will be able to:

21.01 Follow classroom/laboratory safety rules and procedures.

21.02 Demonstrate good housekeeping at workstations within a classroom/laboratory.

21.03 Conduct classroom/laboratory activities and equipment operations in a safe manner.

21.04 Exercise care and respect for all tools, equipment, and materials.

21.05 Select appropriate tools, machines, and equipment to accomplish a given task.

21.06 Identify color-coding safety standards.

21.07 Safely use hand tools and power equipment.

21.08 Explain fire prevention and safety precautions and practices for extinguishing fires.

21.09 Identify harmful effects/potential dangers of familiar hazardous substances/devices to people and the environment.

22.0 Exhibit positive human relations and leadership skills.--The student will be able to:

22.01 Perform roles in a student personnel system or in a career and technical student organization (CTSO).

22.02 Work cooperatively with others.

23.0 Discuss individual interests, aptitudes, and opportunities as they relate to a career.--The student will be able to:

23.01 Identify individual strengths and weaknesses.

23.02 Discuss individual interests related to a career.

23.03 List occupations, job requirements, and job opportunities in engineering technology

23.04 List academic and career programs at the secondary levels in engineering technology.

**Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes.**

The student will be able to:

24.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.

25.0 Develop skills to locate, evaluate, and interpret career information.

26.0 Identify and demonstrate processes for making short and long term goals.

## CTE Standards and Benchmarks

27.0	Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
28.0	Understand the relationship between educational achievement and career choices/postsecondary options.
29.0	Identify a career cluster and related pathways through an interest assessment that match career and education goals.
30.0	Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
31.0	Demonstrate knowledge of technology and its application in career fields/clusters.
50.0	Demonstrate skill in technical sketching and drawing as it relates to engineering design.--The student will be able to:
50.01	Explain the concepts of technical sketching and drawing.
50.02	Create an orthographic sketch or drawing with appropriate layout and dimensions.
50.03	Create an isometric sketch or drawing.
51.0	Demonstrate foundational knowledge and skills associated with the design of engineering systems (e.g. mechanical, fluid, electrical systems).--The student will be able to:
51.01	Measure and calculate dimensions of parts using metric and customary systems.
51.02	Identify simple machines.
51.03	Explain mechanical advantage.
51.04	Define scientific quantities that are used in engineering designs (e.g. mass, weight, force, voltage, current, resistance).
51.05	Read and use system schematics (e.g. electrical and hydraulic circuits).
51.06	Assemble, operate, and identify the parts of mechanical and electrical systems.
52.0	Demonstrate understanding and use of measurement tools and systems.--The student will be able to:
52.01	Take and record both U.S customary and SI systems of measurement.
52.02	Convert measurements using both U.S customary and SI systems of measurement.
53.0	Demonstrate an understanding of the engineering process.--The student will be able to:
53.01	Define terminology associated with engineering products and systems.
53.02	Describe the experimental method as it is applied to design.
53.03	Create a model of a design solution to an engineering problem.
53.04	Sketch a graphical or visual solution to an engineering problem.
53.05	Present a report on an engineering design problem, concept or issue.

## CTE Standards and Benchmarks

54.0	Demonstrate foundational knowledge and skills associated with common computer peripherals and computer functions.--The student will be able to:
54.01	Identify and describe the various internal and external components of a computer and their functions (e.g., power supply, hard drive, RAM, mother board, I/O cards/ports, cabling, etc.).
54.02	Identify and describe various computer input devices (e.g., USB, firewall, parallel and serial, Ethernet, printers, camera).
55.0	Demonstrate an understanding of Internet safety and ethics.--The student will be able to:
55.01	Differentiate between viruses and malware, the impact on personal privacy and computer operation, and ways to avoid infection.
55.02	Adhere to cyber safety practices with regard to conducting Internet searches, email, chat rooms, and other social network websites.
55.03	Adhere to Acceptable Use Policies when accessing the Internet.
56.0	Develop fundamental business productivity software skills.--The students will be able to:
56.01	Use appropriate functions in a word processing program. (e.g. format text, insert tables, create bulleted lists)
56.02	Describe a spreadsheet and the ways in which it may be used.
56.03	Describe presentation software, the ways it may be used, and appropriate presentation delivery skills.
56.04	Use appropriate functions in a presentation software program. (e.g. insert images, duplicate slides, format text)
57.0	Successfully work as a member of a team.--The student will be able to:
57.01	Accept responsibility for specific tasks in a given situation.
57.02	Maintain a positive relationship with other team members.
57.03	Document progress, and provide feedback on work accomplished in a timely manner.
57.04	Complete assigned tasks in a timely and professional manner.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Exploration of Robotics Technology and Career Planning  
**Course Number:** 8600072  
**Course Length:** Semester  
**Teacher Certification:** Refer to the Program Structure section

**Course Description:**

The purpose of this course is to give students an opportunity to explore the area of robotics technology and its associated careers. Students will be given the opportunity to solve technological problems using a variety of tools, materials, processes and systems while gaining an understanding of the effects of robotics technology on our everyday lives.

<b>CTE Standards and Benchmarks</b>	
<b>01.0</b>	Demonstrate an understanding of the characteristics and scope of technology.--The student will be able to:
01.01	Develop new products and systems to solve problems or to help do things that could not be done without the help of technology.
01.02	Describe the development of technology as a human activity that is the result of individual or collective needs and the ability to be creative.
01.03	Explain how technology is closely linked with creativity, which has resulted in innovation.
01.04	Demonstrate how corporations can often create demand for a product by bringing it onto the market and advertising it.
<b>02.0</b>	Demonstrate an understanding of the core concepts of technology.--The student will be able to:
02.01	Describe technological systems including input, processes, output, and, at times, feedback.
02.02	Apply systems thinking, involving considering how every part relates to others.
02.03	Identify control systems having no feedback path and requiring human intervention, and control systems using feedback.
02.04	Explain how technological systems can be connected to one another.
02.05	Repair malfunctions of any part of a system that may affect the function and quality of the system.
02.06	Compare and contrast requirements or parameters placed on the development of a product or system.
02.07	Compare and contrast trade-offs as a decision process recognizing the need for careful compromises among competing factors.
02.08	Describe different technologies that involve different sets of processes.
02.09	Perform basic maintenance as the process of inspecting and servicing a product or system on a regular basis in order for it to continue functioning properly, to extend its life, or to upgrade its capability.

## CTE Standards and Benchmarks

02.10	Utilize controls and mechanisms or particular steps that people perform using information about the system that causes systems to change.
03.0	Demonstrate an understanding of the relationships among technologies and the connection between technology and other fields of study.- -The student will be able to:
03.01	Modify the way technological systems interact with one another.
03.02	Apply a product, system, or environment developed for one setting in another setting.
03.03	Explain how knowledge gained from other fields of study has a direct effect on the development of technological products and systems.
04.0	Demonstrate an understanding of the cultural, social, economic, and political effects of technology.--The student will be able to:
04.01	Identify the ways that use of technology affects humans, including their safety, comfort, choices, and attitudes about technology's development and use.
04.02	Explain that technology, by itself, is neither good nor bad; but decisions about the use of products and systems can result in desirable or undesirable consequences.
04.03	Identify ethical issues associated with the development and use of technology.
04.04	Identify the economic, political, and cultural issues that are influenced by the development and use of technology.
05.0	Demonstrate an understanding of the effects of technology on the environment.--The student will be able to:
05.01	Describe the management of waste produced by technological systems as an important societal issue.
05.02	Describe how technologies can be used to repair damage caused by natural disasters and to break down waste from the use of various products and systems.
05.03	Make decisions about the development and use of technologies that put environmental and economic concerns in direct competition with one another.
06.0	Demonstrate an understanding of the role of society in the development and use of technology.--The student will be able to:
06.01	Describe the development of technologies that has resulted from the demands, values, and interests of individuals, businesses, industries, and societies.
06.02	Describe changes in society and the creation of new needs and wants caused by the use of inventions and innovations.
06.03	Understand social and cultural priorities and values that are reflected in technological devices.
06.04	Explain how meeting societal expectations is the driving force behind the acceptance and use of products and systems.
07.0	Demonstrate an understanding of the influence of technology on history.--The student will be able to:
07.01	Identify inventions and innovations that have evolved by using slow and methodical processes of tests and refinements.
07.02	Explain how the specialization of function has been at the heart of many technological improvements.
07.03	Identify the design and construction of structures for service or convenience evolving from the development of techniques for measurement, controlling systems, and the understanding of spatial relationships.
07.04	Investigate how, that in the past, an invention or innovation was not usually developed with the knowledge of science.

## CTE Standards and Benchmarks

08.0 Demonstrate an understanding of the attributes of design.--The student will be able to:

08.01 Use design as a creative planning process that leads to useful products and systems.

08.02 Explain why there is no perfect design.

08.03 Evaluate criteria and constraints that are requirements for a design.

09.0 Demonstrate an understanding of engineering design.--The student will be able to:

09.01 Utilize the design process involving a set of steps, which can be performed in different sequences and repeated as needed.

09.02 Employ brainstorming as a group problem-solving design process in which each person in the group presents his or her ideas in an open forum.

09.03 Model, test, evaluate and modify designs to transform ideas into practical solutions.

10.0 Demonstrate an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.--The student will be able to:

10.01 Use troubleshooting as a problem-solving method used to identify the cause of a malfunction in a technological system.

10.02 Describe invention as a process of turning ideas and imagination into devices and systems and innovation as the process of modifying an existing product or system to improve it.

10.03 Identify technological problems that are best solved through experimentation.

11.0 Demonstrate the abilities to apply the design process.--The student will be able to:

11.01 Apply a design process to solve problems in and beyond the laboratory-classroom.

11.02 Specify criteria and constraints for the design.

11.03 Make two-dimensional and three-dimensional representations of the designed solution.

11.04 Test and evaluate the design in relation to pre-established requirements, such as criteria and constraints, and refine as needed.

11.05 Make a product or system and document the solution.

12.0 Demonstrate the abilities to use and maintain technological products and systems.--The student will be able to:

12.01 Use information provided in manuals, protocols, or by experienced people to see and understand how things work.

12.02 Use tools, materials, and machines safely to diagnose, adjust, and repair systems.

12.03 Use computers and calculators in various applications.

12.04 Operate and maintain systems in order to achieve a given purpose.

13.0 Demonstrate the abilities to assess the impact of products and systems.--The student will be able to:

13.01 Design and use instruments to gather data.

13.02 Use data collected to analyze and interpret trends in order to identify the positive or negative effects of a technology.



## CTE Standards and Benchmarks

13.03 Identify trends and monitor potential consequences of technological development.

13.04 Interpret and evaluate the accuracy of the information obtained and determine if it is useful.

21.0 Demonstrate proper and safe procedures while working with technological tools, apparatus, equipment, systems, and materials.--The student will be able to:

21.01 Follow classroom/laboratory safety rules and procedures.

21.02 Demonstrate good housekeeping at workstations within a classroom/laboratory.

21.03 Conduct classroom/laboratory activities and equipment operations in a safe manner.

21.04 Exercise care and respect for all tools, equipment, and materials.

21.05 Select appropriate tools, machines, and equipment to accomplish a given task.

21.06 Identify color-coding safety standards.

21.07 Safely use hand tools and power equipment.

21.08 Explain fire prevention and safety precautions and practices for extinguishing fires.

21.09 Identify harmful effects/potential dangers of familiar hazardous substances/devices to people and the environment.

22.0 Exhibit positive human relations and leadership skills.--The student will be able to:

22.01 Perform roles in a student personnel system or in a career and technical student organization (CTSO).

22.02 Work cooperatively with others.

23.0 Discuss individual interests, aptitudes, and opportunities as they relate to a career.--The student will be able to:

23.01 Identify individual strengths and weaknesses.

23.02 Discuss individual interests related to a career.

23.03 List occupations, job requirements, and job opportunities in robotics technology

23.04 List academic and career programs at the secondary levels in robotics technology.

**Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes.**

The student will be able to:

24.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.

25.0 Develop skills to locate, evaluate, and interpret career information.

26.0 Identify and demonstrate processes for making short and long term goals.

27.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of

## CTE Standards and Benchmarks

	entrepreneurship.
28.0	Understand the relationship between educational achievement and career choices/postsecondary options.
29.0	Identify a career cluster and related pathways through an interest assessment that match career and education goals.
30.0	Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
31.0	Demonstrate knowledge of technology and its application in career fields/clusters.
58.0	Demonstrate an understanding of robotics, its history, applications, and evolution.--The student will be able to:
58.01	Explore robotics history through research of the industry.
58.02	Describe various applications of automation and robotics.
58.03	Describe emerging technologies and their implications on the field of robotics.
59.0	Demonstrate an understanding of basic programming concepts.--The student will be able to:
59.01	Apply the engineering design process to the creation of a program
59.02	Discuss the use of algorithms
59.03	Demonstrate the use of flowcharting in documenting an algorithm
59.04	Demonstrate the use of pseudocode in documenting an algorithm
59.05	Explain the function of conditional execution (eg if, if/else) and their uses
59.06	Explain iterative programming structures (e.g., while, do/while) and their uses.
59.07	Demonstrate the use of testing & debugging in the problem solving process
59.08	Create functional program that satisfies prescribed criteria
60.0	Identify the basic subsystems on a robotic system.--The student will be able to:
60.01	Define drivetrain, manipulator, and chassis
60.02	Understand the difference between Ackermann and skid steering
60.03	Identify the difference between Motors and servos
60.04	Calculate simple gear ratios and their relationship with torque vs speed
60.05	Assess the advantages and disadvantages of wheels vs tank treads
60.06	Analyze the characteristics of a sound chassis design
61.0	Describe the role of sensors in the field of robotics.--The student will be able to:

## CTE Standards and Benchmarks

61.01	Define sensor.
61.02	Describe the basic operation common to all sensors.
61.03	Describe the types of sensors and ways in which they can be categorized.
61.04	Investigate the types of manipulators used in a robotic system.
62.0	Build, program, and configure a robot to perform predefined tasks.--The student will be able to:
62.01	Design a robot.
62.02	Create programs as required using robotic software that will allow the robot to perform a set of tasks.
62.03	Create a flow chart that visually describes a basic robotic task.
62.04	Configure subsystems to operate the robot.
62.05	Create a portfolio including drawings and specifications, describing the robot, the tasks and rationale, and the results.
63.0	Solve problems using critical thinking skills, creativity and innovation.--The student will be able to:
63.01	Employ critical thinking skills independently and in teams to solve problems and make decisions.
63.02	Employ critical thinking and interpersonal skills to resolve conflicts.
63.03	Identify and document workplace performance goals and monitor progress toward those goals.
63.04	Conduct technical research to gather information necessary for decision-making.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Exploration of Technical Design Technology and Career Planning  
**Course Number:** 8600082  
**Course Length:** Semester  
**Teacher Certification:** Refer to the Program Structure section

**Course Description:**

The purpose of this course is to give students an opportunity to explore the area of technical design technology and its associated careers. Students will be given the opportunity to solve technological problems using a variety of tools, materials, processes and systems while gaining an understanding of the effects of technical design technology on our everyday lives.

<b>CTE Standards and Benchmarks</b>	
<b>01.0</b>	Demonstrate an understanding of the characteristics and scope of technology.--The student will be able to:
01.01	Develop new products and systems to solve problems or to help do things that could not be done without the help of technology.
01.02	Describe the development of technology as a human activity that is the result of individual or collective needs and the ability to be creative.
01.03	Explain how technology is closely linked with creativity, which has resulted in innovation.
01.04	Demonstrate how corporations can often create demand for a product by bringing it onto the market and advertising it.
<b>02.0</b>	Demonstrate an understanding of the core concepts of technology.--The student will be able to:
02.01	Describe technological systems including input, processes, output, and, at times, feedback.
02.02	Apply systems thinking, involving considering how every part relates to others.
02.03	Identify control systems having no feedback path and requiring human intervention, and control systems using feedback.
02.04	Explain how technological systems can be connected to one another.
02.05	Repair malfunctions of any part of a system that may affect the function and quality of the system.
02.06	Compare and contrast requirements or parameters placed on the development of a product or system.
02.07	Compare and contrast trade-offs as a decision process recognizing the need for careful compromises among competing factors.
02.08	Describe different technologies that involve different sets of processes.
02.09	Perform basic maintenance as the process of inspecting and servicing a product or system on a regular basis in order for it to continue functioning properly, to extend its life, or to upgrade its capability.

## CTE Standards and Benchmarks

02.10	Utilize controls and mechanisms or particular steps that people perform using information about the system that causes systems to change.
03.0	Demonstrate an understanding of the relationships among technologies and the connection between technology and other fields of study.- -The student will be able to:
03.01	Modify the way technological systems interact with one another.
03.02	Apply a product, system, or environment developed for one setting in another setting.
03.03	Explain how knowledge gained from other fields of study has a direct effect on the development of technological products and systems.
04.0	Demonstrate an understanding of the cultural, social, economic, and political effects of technology.--The student will be able to:
04.01	Identify the ways that use of technology affects humans, including their safety, comfort, choices, and attitudes about technology's development and use.
04.02	Explain that technology, by itself, is neither good nor bad; but decisions about the use of products and systems can result in desirable or undesirable consequences.
04.03	Identify ethical issues associated with the development and use of technology.
04.04	Identify the economic, political, and cultural issues that are influenced by the development and use of technology.
05.0	Demonstrate an understanding of the effects of technology on the environment.--The student will be able to:
05.01	Describe the management of waste produced by technological systems as an important societal issue.
05.02	Describe how technologies can be used to repair damage caused by natural disasters and to break down waste from the use of various products and systems.
05.03	Make decisions about the development and use of technologies that put environmental and economic concerns in direct competition with one another.
06.0	Demonstrate an understanding of the role of society in the development and use of technology.--The student will be able to:
06.01	Describe the development of technologies that has resulted from the demands, values, and interests of individuals, businesses, industries, and societies.
06.02	Describe changes in society and the creation of new needs and wants caused by the use of inventions and innovations.
06.03	Understand social and cultural priorities and values that are reflected in technological devices.
06.04	Explain how meeting societal expectations is the driving force behind the acceptance and use of products and systems.
07.0	Demonstrate an understanding of the influence of technology on history.--The student will be able to:
07.01	Identify inventions and innovations that have evolved by using slow and methodical processes of tests and refinements.
07.02	Explain how the specialization of function has been at the heart of many technological improvements.
07.03	Identify the design and construction of structures for service or convenience evolving from the development of techniques for measurement, controlling systems, and the understanding of spatial relationships.
07.04	Investigate how, that in the past, an invention or innovation was not usually developed with the knowledge of science.

## CTE Standards and Benchmarks

08.0 Demonstrate an understanding of the attributes of design.--The student will be able to:

08.01 Use design as a creative planning process that leads to useful products and systems.

08.02 Explain why there is no perfect design.

08.03 Evaluate criteria and constraints that are requirements for a design.

09.0 Demonstrate an understanding of engineering design.--The student will be able to:

09.01 Utilize the design process involving a set of steps, which can be performed in different sequences and repeated as needed.

09.02 Employ brainstorming as a group problem-solving design process in which each person in the group presents his or her ideas in an open forum.

09.03 Model, test, evaluate and modify designs to transform ideas into practical solutions.

10.0 Demonstrate an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.--The student will be able to:

10.01 Use troubleshooting as a problem-solving method used to identify the cause of a malfunction in a technological system.

10.02 Describe invention as a process of turning ideas and imagination into devices and systems and innovation as the process of modifying an existing product or system to improve it.

10.03 Identify technological problems that are best solved through experimentation.

11.0 Demonstrate the abilities to apply the design process.--The student will be able to:

11.01 Apply a design process to solve problems in and beyond the laboratory-classroom.

11.02 Specify criteria and constraints for the design.

11.03 Make two-dimensional and three-dimensional representations of the designed solution.

11.04 Test and evaluate the design in relation to pre-established requirements, such as criteria and constraints, and refine as needed.

11.05 Make a product or system and document the solution.

12.0 Demonstrate the abilities to use and maintain technological products and systems.--The student will be able to:

12.01 Use information provided in manuals, protocols, or by experienced people to see and understand how things work.

12.02 Use tools, materials, and machines safely to diagnose, adjust, and repair systems.

12.03 Use computers and calculators in various applications.

12.04 Operate and maintain systems in order to achieve a given purpose.

13.0 Demonstrate the abilities to assess the impact of products and systems.--The student will be able to:

13.01 Design and use instruments to gather data.

13.02 Use data collected to analyze and interpret trends in order to identify the positive or negative effects of a technology.

## CTE Standards and Benchmarks

13.03 Identify trends and monitor potential consequences of technological development.

13.04 Interpret and evaluate the accuracy of the information obtained and determine if it is useful.

21.0 Demonstrate proper and safe procedures while working with technological tools, apparatus, equipment, systems, and materials.--The student will be able to:

21.01 Follow classroom/laboratory safety rules and procedures.

21.02 Demonstrate good housekeeping at workstations within a classroom/laboratory.

21.03 Conduct classroom/laboratory activities and equipment operations in a safe manner.

21.04 Exercise care and respect for all tools, equipment, and materials.

21.05 Select appropriate tools, machines, and equipment to accomplish a given task.

21.06 Identify color-coding safety standards.

21.07 Safely use hand tools and power equipment.

21.08 Explain fire prevention and safety precautions and practices for extinguishing fires.

21.09 Identify harmful effects/potential dangers of familiar hazardous substances/devices to people and the environment.

22.0 Exhibit positive human relations and leadership skills.--The student will be able to:

22.01 Perform roles in a student personnel system or in a career and technical student organization (CTSO).

22.02 Work cooperatively with others.

23.0 Discuss individual interests, aptitudes, and opportunities as they relate to a career.The student will be able to:

23.01 Identify individual strengths and weaknesses.

23.02 Discuss individual interests related to a career.

23.03 List occupations, job requirements, and job opportunities in technical design technology

23.04 List academic and career programs at the secondary levels in technical design technology.

**Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes.**

The student will be able to:

24.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.

25.0 Develop skills to locate, evaluate, and interpret career information.

26.0 Identify and demonstrate processes for making short and long term goals.

27.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of

## CTE Standards and Benchmarks

	entrepreneurship.
28.0	Understand the relationship between educational achievement and career choices/postsecondary options.
29.0	Identify a career cluster and related pathways through an interest assessment that match career and education goals.
30.0	Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
31.0	Demonstrate knowledge of technology and its application in career fields/clusters.
64.0	Demonstrate technical skills and applications common to all types of drafting.--The student will be able to:
64.01	Apply lettering techniques.
64.02	Make freehand sketches.
64.03	Use drafting symbols and alphabet of lines in accordance with technical standards and practices.
64.04	Apply measuring techniques using decimals and fractions.
64.05	Apply industry standard dimensioning techniques.
64.06	Apply geometric construction techniques.
64.07	Interpret information from drawings, prints, and sketches.
64.08	Apply coordinate systems.
65.0	Demonstrate technical knowledge and skills for making basic orthographic drawings.--The student will be able to:
65.01	Describe orthographic projection.
65.02	Identify the six principal views of an object.
65.03	Produce a three-view orthographic drawing using traditional drafting methods.
66.0	Demonstrate technical knowledge and skills for making pictorial drawings.--The student will be able to:
66.01	Explain methods of pictorial drawing.
66.02	Produce an isometric drawing using traditional drafting methods.
66.03	Produce an oblique drawing using traditional drafting methods.
66.04	Produce a perspective drawing using traditional drafting methods.
67.0	Demonstrate technical knowledge and skills for making a three-dimensional study model.--The student will be able to:
67.01	Produce a conceptual sketch.
67.02	Produce a three-dimensioned model.



**Florida Department of Education  
Student Performance Standards**

**Course Title:** Exploration of Electronics Technology and Career Planning  
**Course Number:** 8600095  
**Course Length:** Semester  
**Teacher Certification:** Refer to the Program Structure section

**Course Description:**

The purpose of this course is to give students an opportunity to explore the area of electronics technology and its associated careers. Students will be given the opportunity to solve technological problems using a variety of tools, materials, processes and systems while gaining an understanding of the effects of electronics technology on our everyday lives.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate an understanding of the characteristics and scope of technology.--The student will be able to:
01.01	Develop new products and systems to solve problems or to help do things that could not be done without the help of technology.
01.02	Describe the development of technology as a human activity that is the result of individual or collective needs and the ability to be creative.
01.03	Explain how technology is closely linked with creativity, which has resulted in innovation.
01.04	Demonstrate how corporations can often create demand for a product by bringing it onto the market and advertising it.
02.0	Demonstrate an understanding of the core concepts of technology.--The student will be able to:
02.01	Describe technological systems including input, processes, output, and, at times, feedback.
02.02	Apply systems thinking, involving considering how every part relates to others.
02.03	Identify control systems having no feedback path and requiring human intervention, and control systems using feedback.
02.04	Explain how technological systems can be connected to one another.
02.05	Repair malfunctions of any part of a system that may affect the function and quality of the system.
02.06	Compare and contrast requirements or parameters placed on the development of a product or system.
02.07	Compare and contrast trade-offs as a decision process recognizing the need for careful compromises among competing factors.
02.08	Describe different technologies that involve different sets of processes.
02.09	Perform basic maintenance as the process of inspecting and servicing a product or system on a regular basis in order for it to continue functioning properly, to extend its life, or to upgrade its capability.
02.10	Utilize controls and mechanisms or particular steps that people perform using information about the system that causes systems to change.

## CTE Standards and Benchmarks

03.0	Demonstrate an understanding of the relationships among technologies and the connection between technology and other fields of study.- -The student will be able to:
03.01	Modify the way technological systems interact with one another.
03.02	Apply a product, system, or environment developed for one setting in another setting.
03.03	Explain how knowledge gained from other fields of study has a direct effect on the development of technological products and systems.
04.0	Demonstrate an understanding of the cultural, social, economic, and political effects of technology.--The student will be able to:
04.01	Identify the ways that use of technology affects humans, including their safety, comfort, choices, and attitudes about technology's development and use.
04.02	Explain that technology, by itself, is neither good nor bad; but decisions about the use of products and systems can result in desirable or undesirable consequences.
04.03	Identify ethical issues associated with the development and use of technology.
04.04	Identify the economic, political, and cultural issues that are influenced by the development and use of technology.
05.0	Demonstrate an understanding of the effects of technology on the environment.--The student will be able to:
05.01	Describe the management of waste produced by technological systems as an important societal issue.
05.02	Describe how technologies can be used to repair damage caused by natural disasters and to break down waste from the use of various products and systems.
05.03	Make decisions about the development and use of technologies that put environmental and economic concerns in direct competition with one another.
06.0	Demonstrate an understanding of the role of society in the development and use of technology.--The student will be able to:
06.01	Describe the development of technologies that has resulted from the demands, values, and interests of individuals, businesses, industries, and societies.
06.02	Describe changes in society and the creation of new needs and wants caused by the use of inventions and innovations.
06.03	Understand social and cultural priorities and values that are reflected in technological devices.
06.04	Explain how meeting societal expectations is the driving force behind the acceptance and use of products and systems.
07.0	Demonstrate an understanding of the influence of technology on history.--The student will be able to:
07.01	Identify inventions and innovations that have evolved by using slow and methodical processes of tests and refinements.
07.02	Explain how the specialization of function has been at the heart of many technological improvements.
07.03	Identify the design and construction of structures for service or convenience evolving from the development of techniques for measurement, controlling systems, and the understanding of spatial relationships.
07.04	Investigate how, that in the past, an invention or innovation was not usually developed with the knowledge of science.
08.0	Demonstrate an understanding of the attributes of design.--The student will be able to:

## CTE Standards and Benchmarks

08.01	Use design as a creative planning process that leads to useful products and systems.
08.02	Explain why there is no perfect design.
08.03	Evaluate criteria and constraints that are requirements for a design.
09.0	Demonstrate an understanding of engineering design.--The student will be able to:
09.01	Utilize the design process involving a set of steps, which can be performed in different sequences and repeated as needed.
09.02	Employ brainstorming as a group problem-solving design process in which each person in the group presents his or her ideas in an open forum.
09.03	Model, test, evaluate and modify designs to transform ideas into practical solutions.
10.0	Demonstrate an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.--The student will be able to:
10.01	Use troubleshooting as a problem-solving method used to identify the cause of a malfunction in a technological system.
10.02	Describe invention as a process of turning ideas and imagination into devices and systems and innovation as the process of modifying an existing product or system to improve it.
10.03	Identify technological problems that are best solved through experimentation.
11.0	Demonstrate the abilities to apply the design process.--The student will be able to:
11.01	Apply a design process to solve problems in and beyond the laboratory-classroom.
11.02	Specify criteria and constraints for the design.
11.03	Make two-dimensional and three-dimensional representations of the designed solution.
11.04	Test and evaluate the design in relation to pre-established requirements, such as criteria and constraints, and refine as needed.
11.05	Make a product or system and document the solution.
12.0	Demonstrate the abilities to use and maintain technological products and systems.--The student will be able to:
12.01	Use information provided in manuals, protocols, or by experienced people to see and understand how things work.
12.02	Use tools, materials, and machines safely to diagnose, adjust, and repair systems.
12.03	Use computers and calculators in various applications.
12.04	Operate and maintain systems in order to achieve a given purpose.
13.0	Demonstrate the abilities to assess the impact of products and systems.--The student will be able to:
13.01	Design and use instruments to gather data.
13.02	Use data collected to analyze and interpret trends in order to identify the positive or negative effects of a technology.
13.03	Identify trends and monitor potential consequences of technological development.

## CTE Standards and Benchmarks

13.04 Interpret and evaluate the accuracy of the information obtained and determine if it is useful.

21.0 Demonstrate proper and safe procedures while working with technological tools, apparatus, equipment, systems, and materials.--The student will be able to:

21.01 Follow laboratory safety rules and procedures.

21.02 Demonstrate good housekeeping at workstations within a total laboratory.

21.03 Conduct laboratory activities and equipment operations in a safe manner.

21.04 Identify tools, machines, materials and equipment and describe their functions.

21.05 Select appropriate tools, machines, and equipment to accomplish a given task.

21.06 Demonstrate safe and correct use of tools, machines, and equipment.

21.07 Identify color-coding safety standards.

21.08 Explain fire prevention and safety precautions and practices for extinguishing fires.

21.09 Identify harmful effects/potential dangers of familiar hazardous substances/devices to people and the environment.

21.10 Identify the factors that determine the severity of electrical shock.

21.11 Identify lifesaving safety equipment such as ground fault circuit interrupters (GFCI), proper grounding.

21.12 Identify protective equipment such as circuit breakers, fuses, surge protection, and uninterruptable power supplies.

21.13 Compare the characteristics and applications of different types of batteries. (Lithium, NiCad, Alkaline, etc.)

21.14 Explain ways in which batteries are rated and tested.

22.0 Exhibit positive human relations and leadership skills.--The student will be able to:

22.01 Perform roles in a student personnel system or in a career and technical student organization (CTSO).

22.02 Work cooperatively with others.

23.0 Discuss individual interests, aptitudes, and opportunities as they relate to a career.--The student will be able to:

23.01 Identify individual strengths and weaknesses.

23.02 Discuss individual interests related to a career.

23.03 List occupations, job requirements, and job opportunities in electronics technology

23.04 List academic and career programs at the secondary levels in electronics technology.

**Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes.**

## CTE Standards and Benchmarks

The student will be able to:

24.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.

25.0 Develop skills to locate, evaluate, and interpret career information.

26.0 Identify and demonstrate processes for making short and long term goals.

27.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.

28.0 Understand the relationship between educational achievement and career choices/postsecondary options.

29.0 Identify a career cluster and related pathways through an interest assessment that match career and education goals.

30.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.

31.0 Demonstrate knowledge of technology and its application in career fields/clusters.

68.0 Demonstrate an understanding of the nature of electricity.--The student will be able to:

68.01 Identify parts of an atom.

68.02 Describe how the interaction of charged particles in the atom creates electron flow.

68.03 Evaluate whether a material is a conductor, insulator, or semiconductor based upon its number of valance electrons and its position on the periodic table.

68.04 Explain the difference between current, voltage and resistance.

68.05 Describe the properties of a magnet including polarity.

68.06 Identify the primary parts of a DC motor and demonstrate how it functions.

68.07 Identify the primary parts of a generator and demonstrate how it functions.

68.08 Compare and contrast the characteristics of a basic motor and generator.

68.09 Describe the composition of elements, mixtures, and compounds according to the electron theory.

68.10 Diagram and show the relationship between electrons, protons, and neutrons.

68.11 State the law of electrical charges.

68.12 Define electrical quantities (voltage, current, resistance, etc.).

68.13 Define units of measure including milli, micro, mega, and kilo.

69.0 Explore the basics of electric circuits.--The student will be able to:

## CTE Standards and Benchmarks

69.01	Identify the characteristics of series, parallel, and combination electrical circuits.
69.02	Sketch circuit diagrams using standardized schematic symbols.
69.03	Construct physical electrical circuits based upon circuit diagrams.
69.04	Measure voltage, current, and resistance using a multimeter.
69.05	Mathematically calculate voltage, current, and resistance using Ohm's law.
69.06	Integrate DC sources, lamps, switches, diodes, light emitting diodes, resistors, and capacitors into electrical circuits to achieve specific functions.
69.07	Determine the value of a fixed resistor based upon the color codes on those resistors.
70.0	Investigate digital signals and basic digital components.--The student will be able to:
70.01	Identify the relationship between the binary number system and the decimal number system and convert binary numbers to decimal.
70.02	Describe the functions of NOT, AND, OR, NAND, NOR, and XOR gates.
70.03	Create truth tables for logic scenarios and match those gates to truth tables.
70.04	Create a digital wave form and graph it for a binary sequence.
70.05	Determine the logic, sensors, gates, outputs, and other components needed to emulate existing electronic devices that utilize logic.
71.0	Demonstrate and apply proper use of electronic equipment.--The student will be able to:
71.01	Use a digital or analog volt-ohm meter (VOM) to obtain accurate measurements.
71.02	Apply safety rules in the use of electronic instruments and demonstrate proper care and maintenance for the equipment during storage and use.
71.03	Use voltmeters, ammeters, and ohmmeters to obtain accurate measurements.
71.04	Set up and use an oscilloscope to observe waveforms and to determine the voltage of the signal presented.
71.05	Use signal generators to produce waveforms of selected frequencies and shapes.
71.06	Use testers to determine the condition of electronic components.
72.0	Demonstrate proper electronic assembly methods.--The student will be able to:
72.01	Exhibit safe soldering techniques.
72.02	Identify proper soldering practices.
72.03	Demonstrate proper soldering applications.
72.04	Identify common electrical and electronics hand tools.
72.05	Demonstrate electronic component assembly.

**CTE Standards and Benchmarks**

72.06 Apply electrical tape to a spliced and soldered wire connection.

72.07 Solder and de-solder components and wires.

72.08 Describe the two methods of making a printed circuit board.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Exploration of Maritime Technology and Career Planning  
**Course Number:** 8600096  
**Course Length:** Semester  
**Teacher Certification:** Refer to the Program Structure section

**Course Description:**

The purpose of this course is to give students an opportunity to explore the area of maritime technology and its associated careers. Students will be given the opportunity to solve technological problems using a variety of tools, materials, processes and systems while gaining an understanding of the effects of maritime technology on our everyday lives.

<b>CTE Standards and Benchmarks</b>	
<b>01.0</b>	Demonstrate an understanding of the characteristics and scope of technology.--The student will be able to:
01.01	Develop new products and systems to solve problems or to help do things that could not be done without the help of technology.
01.02	Describe the development of technology as a human activity that is the result of individual or collective needs and the ability to be creative.
01.03	Explain how technology is closely linked with creativity, which has resulted in innovation.
01.04	Demonstrate how corporations can often create demand for a product by bringing it onto the market and advertising it.
<b>02.0</b>	Demonstrate an understanding of the core concepts of technology.--The student will be able to:
02.01	Describe technological systems including input, processes, output, and, at times, feedback.
02.02	Apply systems thinking, involving considering how every part relates to others.
02.03	Identify control systems having no feedback path and requiring human intervention, and control systems using feedback.
02.04	Explain how technological systems can be connected to one another.
02.05	Repair malfunctions of any part of a system that may affect the function and quality of the system.
02.06	Compare and contrast requirements or parameters placed on the development of a product or system.
02.07	Compare and contrast trade-offs as a decision process recognizing the need for careful compromises among competing factors.
02.08	Describe different technologies that involve different sets of processes.
02.09	Perform basic maintenance as the process of inspecting and servicing a product or system on a regular basis in order for it to continue functioning properly, to extend its life, or to upgrade its capability.



## CTE Standards and Benchmarks

02.10	Utilize controls and mechanisms or particular steps that people perform using information about the system that causes systems to change.
03.0	Demonstrate an understanding of the relationships among technologies and the connection between technology and other fields of study.- -The student will be able to:
03.01	Modify the way technological systems interact with one another.
03.02	Apply a product, system, or environment developed for one setting in another setting.
03.03	Explain how knowledge gained from other fields of study has a direct effect on the development of technological products and systems.
04.0	Demonstrate an understanding of the cultural, social, economic, and political effects of technology.--The student will be able to:
04.01	Identify the ways that use of technology affects humans, including their safety, comfort, choices, and attitudes about technology's development and use.
04.02	Explain that technology, by itself, is neither good nor bad; but decisions about the use of products and systems can result in desirable or undesirable consequences.
04.03	Identify ethical issues associated with the development and use of technology.
04.04	Identify the economic, political, and cultural issues that are influenced by the development and use of technology.
05.0	Demonstrate an understanding of the effects of technology on the environment.--The student will be able to:
05.01	Describe the management of waste produced by technological systems as an important societal issue.
05.02	Describe how technologies can be used to repair damage caused by natural disasters and to break down waste from the use of various products and systems.
05.03	Make decisions about the development and use of technologies that put environmental and economic concerns in direct competition with one another.
06.0	Demonstrate an understanding of the role of society in the development and use of technology.--The student will be able to:
06.01	Describe the development of technologies that has resulted from the demands, values, and interests of individuals, businesses, industries, and societies.
06.02	Describe changes in society and the creation of new needs and wants caused by the use of inventions and innovations.
06.03	Understand social and cultural priorities and values that are reflected in technological devices.
06.04	Explain how meeting societal expectations is the driving force behind the acceptance and use of products and systems.
07.0	Demonstrate an understanding of the influence of technology on history.--The student will be able to:
07.01	Identify inventions and innovations that have evolved by using slow and methodical processes of tests and refinements.
07.02	Explain how the specialization of function has been at the heart of many technological improvements.
07.03	Identify the design and construction of structures for service or convenience evolving from the development of techniques for measurement, controlling systems, and the understanding of spatial relationships.
07.04	Investigate how, that in the past, an invention or innovation was not usually developed with the knowledge of science.

## CTE Standards and Benchmarks

08.0 Demonstrate an understanding of the attributes of design.--The student will be able to:

08.01 Use design as a creative planning process that leads to useful products and systems.

08.02 Explain why there is no perfect design.

08.03 Evaluate criteria and constraints that are requirements for a design.

09.0 Demonstrate an understanding of engineering design.--The student will be able to:

09.01 Utilize the design process involving a set of steps, which can be performed in different sequences and repeated as needed.

09.02 Employ brainstorming as a group problem-solving design process in which each person in the group presents his or her ideas in an open forum.

09.03 Model, test, evaluate and modify designs to transform ideas into practical solutions.

10.0 Demonstrate an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.--The student will be able to:

10.01 Use troubleshooting as a problem-solving method used to identify the cause of a malfunction in a technological system.

10.02 Describe invention as a process of turning ideas and imagination into devices and systems and innovation as the process of modifying an existing product or system to improve it.

10.03 Identify technological problems that are best solved through experimentation.

11.0 Demonstrate the abilities to apply the design process.--The student will be able to:

11.01 Apply a design process to solve problems in and beyond the laboratory-classroom.

11.02 Specify criteria and constraints for the design.

11.03 Make two-dimensional and three-dimensional representations of the designed solution.

11.04 Test and evaluate the design in relation to pre-established requirements, such as criteria and constraints, and refine as needed.

11.05 Make a product or system and document the solution.

12.0 Demonstrate the abilities to use and maintain technological products and systems.--The student will be able to:

12.01 Use information provided in manuals, protocols, or by experienced people to see and understand how things work.

12.02 Use tools, materials, and machines safely to diagnose, adjust, and repair systems.

12.03 Use computers and calculators in various applications.

12.04 Operate and maintain systems in order to achieve a given purpose.

13.0 Demonstrate the abilities to assess the impact of products and systems.--The student will be able to:

13.01 Design and use instruments to gather data.

13.02 Use data collected to analyze and interpret trends in order to identify the positive or negative effects of a technology.

## CTE Standards and Benchmarks

13.03 Identify trends and monitor potential consequences of technological development.

13.04 Interpret and evaluate the accuracy of the information obtained and determine if it is useful.

21.0 Demonstrate proper and safe procedures while working with technological tools, apparatus, equipment, systems, and materials.--The student will be able to:

21.01 Follow classroom/laboratory safety rules and procedures.

21.02 Demonstrate good housekeeping at workstations within a classroom/laboratory.

21.03 Conduct classroom/laboratory activities and equipment operations in a safe manner.

21.04 Exercise care and respect for all tools, equipment, and materials.

21.05 Select appropriate tools, machines, and equipment to accomplish a given task.

21.06 Identify color-coding safety standards.

21.07 Safely use hand tools and power equipment.

21.08 Explain fire prevention and safety precautions and practices for extinguishing fires.

21.09 Identify harmful effects/potential dangers of familiar hazardous substances/devices to people and the environment.

22.0 Exhibit positive human relations and leadership skills.--The student will be able to:

22.01 Perform roles in a student personnel system or in a career and technical student organization (CTSO).

22.02 Work cooperatively with others.

23.0 Discuss individual interests, aptitudes, and opportunities as they relate to a career.--The student will be able to:

23.01 Identify individual strengths and weaknesses.

23.02 Discuss individual interests related to a career.

23.03 List occupations, job requirements, and job opportunities in maritime technology

23.04 List academic and career programs at the secondary levels in maritime technology.

**Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes.**

The student will be able to:

24.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.

25.0 Develop skills to locate, evaluate, and interpret career information.

26.0 Identify and demonstrate processes for making short and long term goals.

27.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of

## CTE Standards and Benchmarks

	entrepreneurship.
28.0	Understand the relationship between educational achievement and career choices/postsecondary options.
29.0	Identify a career cluster and related pathways through an interest assessment that match career and education goals.
30.0	Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
31.0	Demonstrate knowledge of technology and its application in career fields/clusters.
73.0	Demonstrate knowledge relating to the historical origins of the maritime industry from vessel development, cultural, and trade perspectives.--The student will be able to:
73.01	Identify different types of ships and their origins.
73.02	Create a timeline showing significant milestones in maritime history.
73.03	Describe the significance of the Phoenicians, Vikings, and Asians on maritime cultures and traditions.
73.04	Identify changes in sea going trade over the centuries.
73.05	Describe the effect of trade on colonialism and the developing world.
74.0	Demonstrate proficiency in understanding the various career paths in the maritime industry.--The student will be able to:
74.01	Identify important factors to choosing a career.
74.02	Explain the importance of planning for a career.
74.03	Evaluate the impact of education on long term career success.
74.04	Research and investigate career paths in the maritime industry.
74.05	Describe the skills and personal qualities needed for maritime careers.
74.06	Describe the everyday life of people working in maritime careers.
74.07	Describe the future growth trends of maritime careers.
74.08	Create a personal maritime career path based on interest.
75.0	Demonstrate an understanding of required skills sets by mariners including, safety training, regulations, and leadership.--The student will be able to:
75.01	Create a timeline explaining the evolution of the U.S. Coast Guard.
75.02	Explain the main functions of the U.S. Coast Guard.
75.03	Describe the U.S. Coast Guard and its place in the U.S. military.
75.04	Describe the organization and leadership hierarchy on a vessel.

## CTE Standards and Benchmarks

75.05	Explain Master's Level of Authority.
75.06	Describe the importance of leadership and chain-of-command on a vessel.
75.07	Use seamanship skills to tie knots, identify equipment, and practice safe work methods.
75.08	Describe the process of watch keeping, navigation, boat handling, anchoring, and mooring.
75.09	Use seamanship terminology.
76.0	Demonstrate proficiency in using engineering methods for ship construction and design.--The student will be able to:
76.01	Identify and describe various types of marine engines.
76.02	Explain the phenomenon of wind generation.
76.03	Explain how wind has been used to propel ships.
76.04	Describe the process and instrumentation for measuring and calculating wind power.
76.05	Describe the principles of buoyancy.
76.06	Explain the relationship between weight, volume, and density.
76.07	Explain Archimedes Principal.
76.08	Explain how a ship made of steel is able to float.
76.09	Construct a model vessel from material with a density greater than 1 and ensure it floats.
76.10	Use the engineering process to create solutions for a maritime related problem.
76.11	Work in teams to using the engineering process to create solutions for a maritime problem.
77.0	Identify and explain various vessels and their and their use.--The student will be able to:
77.01	Identify various types of ships.
77.02	Explain specific reasons for different types of ships.
77.03	Describe different types of cargo vessels and cargo types.
77.04	Describe different types of passenger vessels and their purpose
78.0	Evaluate the environmental impact of the maritime industry.--The student will be able to:
78.01	Explain the role of maritime in protection of the environment.
78.02	Describe the environmental regulations on the maritime industry.
79.0	Examine the potential and use of marine resources.--The student will be able to:
79.01	Identify various energy sources related to the marine environment.

## CTE Standards and Benchmarks

79.02	Describe how solar energy can be used to provide power for ships.
79.03	Provide three examples of solar power use in the maritime industry.
79.04	Explain how power could be generated from currents.
79.05	Describe how energy can be created from tidal movements and what technology is used to perform this function.
80.0	Demonstrate an understanding of oceanography concepts.--The student will be able to:
80.01	Explain oceanography's role as a marine science discipline and its areas of investigation.
80.02	Explain how ocean currents form and their role in distribution of heat.
80.03	Describe the various types of tides and why they are monitored throughout the maritime industry.
80.04	Evaluate the difference between tides, currents, and waves.
80.05	Compare the El Nino and La Nina events and their impact on weather.
80.06	Identify various ways wave energy is created and how it moves through the ocean.
80.07	Apply mathematics to waves to solve for wave height and wave length.
80.08	Explain the Coriolis Effect.
80.09	Describe the theory of global warming and how humans have contributed to associated maritime events.
81.0	Demonstrate an understanding of the fundamentals of marine biology.--The student will be able to:
81.01	Describe how freshwater collects on the earth's surface and its relation to the oceans.
81.02	Explain the ecological importance of mangroves in water filtration and runoff.
81.03	Explain the role of mangroves in high energy events and environmental concerns for their removal.
81.04	Identify and explain the importance of estuaries.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Exploration of Logistics and Supply Chain Technology and Career Planning  
**Course Number:** 8600097  
**Course Length:** Semester  
**Teacher Certification:** Refer to the Program Structure section

**Course Description:**

The purpose of this course is to give students an opportunity to explore the area of logistics and supply chain technology and its associated careers. Students will be given the opportunity to solve technological problems using a variety of tools, materials, processes and systems while gaining an understanding of the effects of logistics and supply chain technology on our everyday lives.

<b>CTE Standards and Benchmarks</b>	
<b>01.0</b>	Demonstrate an understanding of the characteristics and scope of technology.--The student will be able to:
01.01	Develop new products and systems to solve problems or to help do things that could not be done without the help of technology.
01.02	Describe the development of technology as a human activity that is the result of individual or collective needs and the ability to be creative.
01.03	Explain how technology is closely linked with creativity, which has resulted in innovation.
01.04	Demonstrate how corporations can often create demand for a product by bringing it onto the market and advertising it.
<b>02.0</b>	Demonstrate an understanding of the core concepts of technology.--The student will be able to:
02.01	Describe technological systems including input, processes, output, and, at times, feedback.
02.02	Apply systems thinking, involving considering how every part relates to others.
02.03	Identify control systems having no feedback path and requiring human intervention, and control systems using feedback.
02.04	Explain how technological systems can be connected to one another.
02.05	Repair malfunctions of any part of a system that may affect the function and quality of the system.
02.06	Compare and contrast requirements or parameters placed on the development of a product or system.
02.07	Compare and contrast trade-offs as a decision process recognizing the need for careful compromises among competing factors.
02.08	Describe different technologies that involve different sets of processes.
02.09	Perform basic maintenance as the process of inspecting and servicing a product or system on a regular basis in order for it to continue functioning properly, to extend its life, or to upgrade its capability.

## CTE Standards and Benchmarks

02.10	Utilize controls and mechanisms or particular steps that people perform using information about the system that causes systems to change.
03.0	Demonstrate an understanding of the relationships among technologies and the connection between technology and other fields of study.- -The student will be able to:
03.01	Modify the way technological systems interact with one another.
03.02	Apply a product, system, or environment developed for one setting in another setting.
03.03	Explain how knowledge gained from other fields of study has a direct effect on the development of technological products and systems.
04.0	Demonstrate an understanding of the cultural, social, economic, and political effects of technology.--The student will be able to:
04.01	Identify the ways that use of technology affects humans, including their safety, comfort, choices, and attitudes about technology's development and use.
04.02	Explain that technology, by itself, is neither good nor bad; but decisions about the use of products and systems can result in desirable or undesirable consequences.
04.03	Identify ethical issues associated with the development and use of technology.
04.04	Identify the economic, political, and cultural issues that are influenced by the development and use of technology.
05.0	Demonstrate an understanding of the effects of technology on the environment.--The student will be able to:
05.01	Describe the management of waste produced by technological systems as an important societal issue.
05.02	Describe how technologies can be used to repair damage caused by natural disasters and to break down waste from the use of various products and systems.
05.03	Make decisions about the development and use of technologies that put environmental and economic concerns in direct competition with one another.
06.0	Demonstrate an understanding of the role of society in the development and use of technology.--The student will be able to:
06.01	Describe the development of technologies that has resulted from the demands, values, and interests of individuals, businesses, industries, and societies.
06.02	Describe changes in society and the creation of new needs and wants caused by the use of inventions and innovations.
06.03	Understand social and cultural priorities and values that are reflected in technological devices.
06.04	Explain how meeting societal expectations is the driving force behind the acceptance and use of products and systems.
07.0	Demonstrate an understanding of the influence of technology on history.--The student will be able to:
07.01	Identify inventions and innovations that have evolved by using slow and methodical processes of tests and refinements.
07.02	Explain how the specialization of function has been at the heart of many technological improvements.
07.03	Identify the design and construction of structures for service or convenience evolving from the development of techniques for measurement, controlling systems, and the understanding of spatial relationships.
07.04	Investigate how, that in the past, an invention or innovation was not usually developed with the knowledge of science.



## CTE Standards and Benchmarks

08.0 Demonstrate an understanding of the attributes of design.--The student will be able to:

08.01 Use design as a creative planning process that leads to useful products and systems.

08.02 Explain why there is no perfect design.

08.03 Evaluate criteria and constraints that are requirements for a design.

09.0 Demonstrate an understanding of engineering design.--The student will be able to:

09.01 Utilize the design process involving a set of steps, which can be performed in different sequences and repeated as needed.

09.02 Employ brainstorming as a group problem-solving design process in which each person in the group presents his or her ideas in an open forum.

09.03 Model, test, evaluate and modify designs to transform ideas into practical solutions.

10.0 Demonstrate an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.--The student will be able to:

10.01 Use troubleshooting as a problem-solving method used to identify the cause of a malfunction in a technological system.

10.02 Describe invention as a process of turning ideas and imagination into devices and systems and innovation as the process of modifying an existing product or system to improve it.

10.03 Identify technological problems that are best solved through experimentation.

11.0 Demonstrate the abilities to apply the design process.--The student will be able to:

11.01 Apply a design process to solve problems in and beyond the laboratory-classroom.

11.02 Specify criteria and constraints for the design.

11.03 Make two-dimensional and three-dimensional representations of the designed solution.

11.04 Test and evaluate the design in relation to pre-established requirements, such as criteria and constraints, and refine as needed.

11.05 Make a product or system and document the solution.

12.0 Demonstrate the abilities to use and maintain technological products and systems.--The student will be able to:

12.01 Use information provided in manuals, protocols, or by experienced people to see and understand how things work.

12.02 Use tools, materials, and machines safely to diagnose, adjust, and repair systems.

12.03 Use computers and calculators in various applications.

12.04 Operate and maintain systems in order to achieve a given purpose.

13.0 Demonstrate the abilities to assess the impact of products and systems.--The student will be able to:

13.01 Design and use instruments to gather data.

13.02 Use data collected to analyze and interpret trends in order to identify the positive or negative effects of a technology.

## CTE Standards and Benchmarks

13.03	Identify trends and monitor potential consequences of technological development.
13.04	Interpret and evaluate the accuracy of the information obtained and determine if it is useful.
21.0	Demonstrate proper and safe procedures while working with technological tools, apparatus, equipment, systems, and materials.--The student will be able to:
21.01	Follow classroom/laboratory safety rules and procedures.
21.02	Demonstrate good housekeeping at workstations within a classroom/laboratory.
21.03	Conduct classroom/laboratory activities and equipment operations in a safe manner.
21.04	Exercise care and respect for all tools, equipment, and materials.
21.05	Select appropriate tools, machines, and equipment to accomplish a given task.
21.06	Identify color-coding safety standards.
21.07	Safely use hand tools and power equipment.
21.08	Explain fire prevention and safety precautions and practices for extinguishing fires.
21.09	Identify harmful effects/potential dangers of familiar hazardous substances/devices to people and the environment.
22.0	Exhibit positive human relations and leadership skills.--The student will be able to:
22.01	Perform roles in a student personnel system or in a career and technical student organization (CTSO).
22.02	Work cooperatively with others.
23.0	Discuss individual interests, aptitudes, and opportunities as they relate to a career.--The student will be able to:
23.01	Identify individual strengths and weaknesses.
23.02	Discuss individual interests related to a career.
23.03	List occupations, job requirements, and job opportunities in logistics and supply chain technology
23.04	List academic and career programs at the secondary levels in logistics and supply chain technology.
<b><u>Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes.</u></b>	
The student will be able to:	
24.0	Describe the influences that societal, economic, and technological changes have on employment trends and future training.
25.0	Develop skills to locate, evaluate, and interpret career information.
26.0	Identify and demonstrate processes for making short and long term goals.
27.0	Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of

## CTE Standards and Benchmarks

	entrepreneurship.
28.0	Understand the relationship between educational achievement and career choices/postsecondary options.
29.0	Identify a career cluster and related pathways through an interest assessment that match career and education goals.
30.0	Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
31.0	Demonstrate knowledge of technology and its application in career fields/clusters.
82.0	Demonstrate an understanding of global logistics and supply chain.--The student will be able to:
82.01	Discuss the history, career fields, and benefits of the global supply chain industry.
82.02	Describe principal elements of the logistics environment and logistics systems.
82.03	Explore career pathways within global logistics and supply chain.
82.04	Explain ways in which handling of product throughout supply chain logistics affects company's viability and profitability.
82.05	Define basic principles of just-in-time purchasing and inventory control.
82.06	Identify major security requirements applicable to the logistics environment.
82.07	Cite examples of environmental and financial impacts of logistics activities.
83.0	Demonstrate an understanding of transportation systems.--The student will be able to:
83.01	Identify various transportation modes.
83.02	Describe and contrast the different modes of transportation and their advantages/disadvantages.
83.03	List the main considerations in determining the best mode.
83.04	Describe and assess global freight transportation systems.
84.0	Demonstrate professional communication skills.--The student will be able to:
84.01	Identify effective communications to both internal and external customers.
84.02	Identify ways to elicit clear statements of customer requirements and specifications.
84.03	Demonstrate an understanding of teamwork and good professional workplace behavior to solve problems.
84.04	List characteristics of an effective team member.
84.05	Explain ways to set team goals.
84.06	Identify use of team environment to solve problems and resolve conflicts.
84.07	Describe typical requirements for good workplace conduct.

## CTE Standards and Benchmarks

85.0 Demonstrate customer service skills.--The student will be able to:

85.01 Exhibit acceptable workplace dress or attire.

85.02 Exhibit punctuality, initiative, courtesy, loyalty, and honesty.

85.03 Use a personality inventory for personal improvement.

85.04 Exhibit the ability to get along with others.

85.05 Discuss the importance of human relations.

85.06 Develop and demonstrate the unique human relations skills needed for successful entry and progress in the customer service occupations or marketing occupations selected as a career objective.

85.07 Differentiate between an acceptable and an unacceptable code of business ethical conduct.

86.0 Demonstrate an understanding of warehouse operations.--The student will be able to:

86.01 Identify and discuss the characteristics, purpose and importance of warehouse operations and supply chain management.

86.02 Define material handling logistics as it applies to the warehousing function.

86.03 Define "logical" in terms of the term logistics.

86.04 Define movement in a warehouse and identify the various locations within the warehouse where planned efficient movement of materials takes place.

86.05 Explain channels of distribution.

86.06 Discuss safety regulatory requirements and procedures.

86.07 Identify various types of equipment available to enhance the efficient movement of materials within a warehouse.

86.08 Identify the various types of loading docks and cross docking.

86.09 Define the term "peaks and valleys" as it applies to warehouse activity.

86.10 Explain the importance of staging and JIT.

86.11 Identify the primary types of hand-operated pieces of warehouse equipment.

86.12 Explain the concept of "balancing" as it applies to counterbalanced lift trucks.

86.13 Identify warehouse documents (e.g., pick tickets, special orders, inventory forms).

87.0 Demonstrate an understanding of storage and control operations.--The student will be able to:

87.01 Explain the concepts involved in determining the best method for storage and the equipment needed to facilitate a cost effective and efficient warehouse.

87.02 Identify the factors that are involved with the calculating and estimating of the storage area needed for retention of materials in a warehouse.

87.03 Define the following storage related terms: Size, Volume, Density, Pallet, and Case.

## CTE Standards and Benchmarks

87.04	Define the terms packaging, SKU, stacking frame, term "Logistics Execution Systems" (LES), signage and signposting, "real time" and barcoding.
87.05	Explain how the volume of materials, space usage, and control affect the design of storage space in a warehouse design.
87.06	Explain inventories and their importance.
87.07	Identify and analyze various warehouse storage systems.
87.08	Identify the basic configuration for pallet rack.
87.09	Identify the various types of technologies developed over the years to keep track of goods within the warehouse.
87.10	Define the components of an LES.
87.11	Define radio frequency identification (RFID).
87.12	Explain the importance of automation in warehousing.
87.13	Identify the value of emerging technologies related to warehouse operations.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Exploration of Green Construction and Architecture Technology and Career Planning  
**Course Number:** 8600098  
**Course Length:** Semester  
**Teacher Certification:** Refer to the Program Structure section

**Course Description:**

The purpose of this course is to give students an opportunity to explore the area of green construction and architecture technology and its associated careers. Students will be given the opportunity to solve technological problems using a variety of tools, materials, processes and systems while gaining an understanding of the effects of green construction and architecture technology on our everyday lives.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate an understanding of the characteristics and scope of technology.--The student will be able to:
01.01	Develop new products and systems to solve problems or to help do things that could not be done without the help of technology.
01.02	Describe the development of technology as a human activity that is the result of individual or collective needs and the ability to be creative.
01.03	Explain how technology is closely linked with creativity, which has resulted in innovation.
01.04	Demonstrate how corporations can often create demand for a product by bringing it onto the market and advertising it.
02.0	Demonstrate an understanding of the core concepts of technology.--The student will be able to:
02.01	Describe technological systems including input, processes, output, and, at times, feedback.
02.02	Apply systems thinking, involving considering how every part relates to others.
02.03	Identify control systems having no feedback path and requiring human intervention, and control systems using feedback.
02.04	Explain how technological systems can be connected to one another.
02.05	Repair malfunctions of any part of a system that may affect the function and quality of the system.
02.06	Compare and contrast requirements or parameters placed on the development of a product or system.
02.07	Compare and contrast trade-offs as a decision process recognizing the need for careful compromises among competing factors.
02.08	Describe different technologies that involve different sets of processes.
02.09	Perform basic maintenance as the process of inspecting and servicing a product or system on a regular basis in order for it to continue functioning properly, to extend its life, or to upgrade its capability.

## CTE Standards and Benchmarks

02.10	Utilize controls and mechanisms or particular steps that people perform using information about the system that causes systems to change.
03.0	Demonstrate an understanding of the relationships among technologies and the connection between technology and other fields of study.- -The student will be able to:
03.01	Modify the way technological systems interact with one another.
03.02	Apply a product, system, or environment developed for one setting in another setting.
03.03	Explain how knowledge gained from other fields of study has a direct effect on the development of technological products and systems.
04.0	Demonstrate an understanding of the cultural, social, economic, and political effects of technology.--The student will be able to:
04.01	Identify the ways that use of technology affects humans, including their safety, comfort, choices, and attitudes about technology's development and use.
04.02	Explain that technology, by itself, is neither good nor bad; but decisions about the use of products and systems can result in desirable or undesirable consequences.
04.03	Identify ethical issues associated with the development and use of technology.
04.04	Identify the economic, political, and cultural issues that are influenced by the development and use of technology.
05.0	Demonstrate an understanding of the effects of technology on the environment.--The student will be able to:
05.01	Describe the management of waste produced by technological systems as an important societal issue.
05.02	Describe how technologies can be used to repair damage caused by natural disasters and to break down waste from the use of various products and systems.
05.03	Make decisions about the development and use of technologies that put environmental and economic concerns in direct competition with one another.
06.0	Demonstrate an understanding of the role of society in the development and use of technology.--The student will be able to:
06.01	Describe the development of technologies that has resulted from the demands, values, and interests of individuals, businesses, industries, and societies.
06.02	Describe changes in society and the creation of new needs and wants caused by the use of inventions and innovations.
06.03	Understand social and cultural priorities and values that are reflected in technological devices.
06.04	Explain how meeting societal expectations is the driving force behind the acceptance and use of products and systems.
07.0	Demonstrate an understanding of the influence of technology on history.--The student will be able to:
07.01	Identify inventions and innovations that have evolved by using slow and methodical processes of tests and refinements.
07.02	Explain how the specialization of function has been at the heart of many technological improvements.
07.03	Identify the design and construction of structures for service or convenience evolving from the development of techniques for measurement, controlling systems, and the understanding of spatial relationships.
07.04	Investigate how, that in the past, an invention or innovation was not usually developed with the knowledge of science.

## CTE Standards and Benchmarks

08.0 Demonstrate an understanding of the attributes of design.--The student will be able to:

08.01 Use design as a creative planning process that leads to useful products and systems.

08.02 Explain why there is no perfect design.

08.03 Evaluate criteria and constraints that are requirements for a design.

09.0 Demonstrate an understanding of engineering design.--The student will be able to:

09.01 Utilize the design process involving a set of steps, which can be performed in different sequences and repeated as needed.

09.02 Employ brainstorming as a group problem-solving design process in which each person in the group presents his or her ideas in an open forum.

09.03 Model, test, evaluate and modify designs to transform ideas into practical solutions.

10.0 Demonstrate an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.--The student will be able to:

10.01 Use troubleshooting as a problem-solving method used to identify the cause of a malfunction in a technological system.

10.02 Describe invention as a process of turning ideas and imagination into devices and systems and innovation as the process of modifying an existing product or system to improve it.

10.03 Identify technological problems that are best solved through experimentation.

11.0 Demonstrate the abilities to apply the design process.--The student will be able to:

11.01 Apply a design process to solve problems in and beyond the laboratory-classroom.

11.02 Specify criteria and constraints for the design.

11.03 Make two-dimensional and three-dimensional representations of the designed solution.

11.04 Test and evaluate the design in relation to pre-established requirements, such as criteria and constraints, and refine as needed.

11.05 Make a product or system and document the solution.

12.0 Demonstrate the abilities to use and maintain technological products and systems.--The student will be able to:

12.01 Use information provided in manuals, protocols, or by experienced people to see and understand how things work.

12.02 Use tools, materials, and machines safely to diagnose, adjust, and repair systems.

12.03 Use computers and calculators in various applications.

12.04 Operate and maintain systems in order to achieve a given purpose.

13.0 Demonstrate the abilities to assess the impact of products and systems.--The student will be able to:

13.01 Design and use instruments to gather data.

13.02 Use data collected to analyze and interpret trends in order to identify the positive or negative effects of a technology.



## CTE Standards and Benchmarks

13.03 Identify trends and monitor potential consequences of technological development.

13.04 Interpret and evaluate the accuracy of the information obtained and determine if it is useful.

21.0 Demonstrate proper and safe procedures while working with technological tools, apparatus, equipment, systems, and materials.--The student will be able to:

21.01 Follow classroom/laboratory safety rules and procedures.

21.02 Demonstrate good housekeeping at workstations within a classroom/laboratory.

21.03 Conduct classroom/laboratory activities and equipment operations in a safe manner.

21.04 Exercise care and respect for all tools, equipment, and materials.

21.05 Select appropriate tools, machines, and equipment to accomplish a given task.

21.06 Identify color-coding safety standards.

21.07 Safely use hand tools and power equipment.

21.08 Explain fire prevention and safety precautions and practices for extinguishing fires.

21.09 Identify harmful effects/potential dangers of familiar hazardous substances/devices to people and the environment.

22.0 Exhibit positive human relations and leadership skills.--The student will be able to:

22.01 Perform roles in a student personnel system or in a career and technical student organization (CTSO).

22.02 Work cooperatively with others.

23.0 Discuss individual interests, aptitudes, and opportunities as they relate to a career.--The student will be able to:

23.01 Identify individual strengths and weaknesses.

23.02 Discuss individual interests related to a career.

23.03 List occupations, job requirements, and job opportunities in green construction and architectural technology

23.04 List academic and career programs at the secondary levels in green construction and architectural technology.

**Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes.**

The student will be able to:

24.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.

25.0 Develop skills to locate, evaluate, and interpret career information.

26.0 Identify and demonstrate processes for making short and long term goals.

27.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of

## CTE Standards and Benchmarks

	entrepreneurship.
28.0	Understand the relationship between educational achievement and career choices/postsecondary options.
29.0	Identify a career cluster and related pathways through an interest assessment that match career and education goals.
30.0	Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
31.0	Demonstrate knowledge of technology and its application in career fields/clusters.
88.0	Demonstrate an understanding of the built environment.--The student will be able to:
88.01	Research the development of construction technology, its impact on the built environment and the impact of growth on the construction industry.
88.02	Examine and compare the relationship between the built environment and the natural environment.
88.03	Compare architectural designs and/or models to understand how technical and functional components impact aesthetic qualities.
88.04	Analyze changes in architectural styles and construction practices over time.
88.05	Research innovative historical architectural and/or engineering works and examine the significance of their legacy for the future.
89.0	Demonstrate an understanding of the green environment.--The student will be able to:
89.01	Recognize and analyze the development of the built environment and its impacts on the natural environment such as pollution, deforestation, climate change, health and disease.
89.02	Describe and give examples of how a green built environment creates growth for the construction industry, and the economy such as health and safety, transportation and natural resources.
89.03	Examine and compare the relationship between a green built environment and the natural environment.
89.04	Explain the purpose of the United States Green Building Council (USGBC), the Green Building Certification Institute (GBCI) and Leadership for Energy and Environmental Design (LEED) are and how they create growth for the construction industry and the economy.
89.05	Research sustainable building design and its relationship between health, energy efficiency and money savings for government, businesses and individuals.
89.06	Research the effects of building science on construction and energy efficiency.
89.07	Research renewable fuels and energy.
90.0	Use building laws and codes, style, convenience, cost, climate, and function to select building designs.--The student will be able to:
90.01	Identify the function and types of building foundations.
90.02	Identify the subsystems contained in buildings.
90.03	Summarize energy efficient building materials and processes.

## CTE Standards and Benchmarks

91.0	Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.--The student will be able to:
91.01	Apply a systematic process to determine to meet the criteria and constraints of the problem.
91.02	Make two-dimensional and three-dimensional representations of the designed solution
91.03	Analyze data from tests to determine similarities and differences among several design solutions to identify the best characteristics of each that can be combined into a new solution to better meet the criteria for success.
91.04	Apply a design process to solve problems in or beyond the laboratory-classroom.
91.05	Summarize energy efficient building materials and processes.
91.06	Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved
92.0	Describe the human impact on the environment and identify ways to minimize environmental impacts.--The student will be able to:
92.01	Analyze and interpret data on natural hazards to forecast future catastrophic events and inform the development of technologies to mitigate their effects.
92.02	Construct an argument supported by evidence for how increases in human population and per capita consumption of natural resources impact Earth's systems.
92.03	Analyze recycling opportunities for building construction and materials.
92.04	Ask questions to clarify evidence of the factors that have caused the rise in global temperatures over the past century.
93.0	Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions and accurately measure drawing dimensions.--The student will be able to:
93.01	Construct geometric figures including but not limited to triangles, squares, rectangles, and circles.
93.02	Solve real-world and mathematical problems involving area, volume, perimeter, and surface area of two- and three-dimensional objects composed of geometric figures including but not limited to triangles, quadrilaterals, polygons, cubes, and right prisms. Identify the subsystems contained in buildings.
93.03	Solve real-world and mathematical problems involving area, volume, perimeter, and surface area of two- and three-dimensional objects composed of geometric figures including but not limited to triangles, quadrilaterals, polygons, cubes, and right prisms.
93.04	Use a ruler and an architectural scale to measure and create drawings and produce scale drawings a building.

## Additional Information

### Laboratory Activities

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### Florida Standards for English Language Development (ELD)

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### Special Notes

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### Career Planning

**Effective July 1, 2019, per Section 1003.4156, Florida Statutes (F.S.), for students to meet middle grades promotion requirements, a Career and Education Planning course must be completed in either sixth, seventh, or eighth grade.** These courses should be taught integrating the eight career and education planning course standards. The MyCareerShines powered by Kuder® career planning system is available free of charge to all Florida middle and high schools to assist students in completing research-based career assessments, exploring career options and developing an online academic and career plan.

### Career and Technical Student Organization (CTSO)

The Florida Technology Student Association (FL-TSA) is the intercurricular career and technical student organization for providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

## **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

**Florida Department of Education  
Curriculum Framework**

**Course Title:** Introduction to Health Science Career Pathways  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Health Science

**Secondary – Middle School**

Course Number	8709350
CIP Number	148709350M
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	HOSA: Future Health Professionals

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Health Science career cluster.

The content includes but is not limited to a broad overview of the Health Science career cluster, including terminology, careers, history, required skills, and technologies associated with each pathway in the Health Science career cluster.

Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Course Structure**

This program is a planned sequence of instruction consisting of 1 course.

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8709350	Introduction to Health Science Career Pathways	ANY HEALTH OCCUP G *(See DOE approved list)	Semester

### **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate an understanding of the Therapeutic Services career pathway.
- 02.0 Demonstrate an understanding of the Diagnostic Services career pathway.
- 03.0 Demonstrate an understanding of the Health Informatics career pathway.
- 04.0 Demonstrate an understanding of the Support Services career pathway.
- 05.0 Demonstrate an understanding of the Biotechnology Research and Development career pathway.
- 06.0 Apply leadership and communication skills.

Florida Department of Education  
Student Performance Standards

Course Title: Introduction to Health Science Career Pathways  
Course Number: 8709350  
Course Length: Semester

Course Description:

Beginning with a broad overview of the Health Science career cluster, students are introduced to the terminology, careers, history, required skills, and technologies associated with each pathway in the Health Science career cluster. Additionally, they will be provided with opportunities to acquire and demonstrate beginning leadership skills.

CTE Standards and Benchmarks	
01.0	Demonstrate an understanding of the Therapeutic Services career pathway. -- The student will be able to:
01.01	Define and use proper terminology associated with the Therapeutic Services career pathway.
01.02	Explore a variety of careers in the Therapeutic Services career pathway, including educational requirements and salary expectations, such as EMS; Nursing; Dentistry; Pharmacy; Sports Medicine.
01.03	Identify common characteristics of the careers in the Therapeutic Services pathway.
01.04	Identify skills and equipment used in Therapeutic Service careers.
01.05	Perform lab activities that are relevant to each career that is being explored.
02.0	Demonstrate an understanding of the Diagnostic Services career pathway. -- The student will be able to:
02.01	Define and use proper terminology associated with the Diagnostic Services career pathway.
02.02	Explore a variety of careers in the Diagnostic Services career pathway. Suggested careers to focus on: Medical Laboratory Services; Radiology; Ophthalmology.
02.03	Identify common characteristics of the careers in the Diagnostic Services career pathway.
02.04	Identify skills required to successfully enter any career in the Diagnostic Services career pathway.
02.05	Perform lab activities related to careers being explored for example blood glucose testing, blood typing, and vision testing.
03.0	Demonstrate an understanding of the Health Informatics career pathway. -- The student will be able to:
03.01	Define and use proper terminology associated with the Health Informatics career pathway.



## CTE Standards and Benchmarks

03.02	Explore a variety of careers in the Health Informatics career pathway.
03.03	Explore the careers available in the Health Informatics; Medical Coding/Biller; Medical Office Administration
03.04	Identify common characteristics of the careers in the Health Informatics career pathway.
03.05	Identify skills required to successfully enter any career in the Health Informatics career pathway.
03.06	Perform activities related to health informatics careers such as evaluating medical records or bills, office reception and support.
04.0	Demonstrate an understanding of the Support Services career pathway. -- The student will be able to:
04.01	Define and use proper terminology associated with the Support Services career pathway.
04.02	Explore a variety of careers in the Support Services career pathway. Suggested careers: dietary services;; central supply ; social services ; environmental services
04.03	Identify common characteristics of the careers in the Support Services career pathway.
04.04	Identify skills required to successfully enter any career in the Support Services career pathway.
04.05	Perform lab skills related to covered careers such as diet plan design and housekeeping skills.
05.0	Demonstrate an understanding of the Biotechnology Research and Development career pathway. -- The student will be able to:
05.01	Define and use proper terminology associated with the Biotechnology Research and Development career pathway.
05.02	Explore a variety of careers in the Biotechnology Research and Development career pathway. Suggested careers: Biomedical Engineering and Biomedical Research.
05.03	Identify skills required to successfully enter any career in the Biotechnology Research and Development career pathway.
05.04	Perform lab skills related to covered career, for example: microbiology labs; investigating antiseptis procedures; DNA extraction lab.
05.05	Explore the role of research in medical advancements and discoveries that promote wellness for example development of vaccines and discovery of the structure of DNA.
06.0	Apply leadership and communication skills. -- The student will be able to:
06.01	Increase awareness of leadership opportunities through professional organizations such as Career Technical Student Organizations (CTSOs).
06.02	Identify the characteristics of effective leadership.
06.03	Demonstrate effective communication skills.
06.04	Demonstrate an understanding of how information technology is used in health care.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills.

For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

The intended progression for the Health Science Middle School courses is Introduction to Health Science Career Pathways (8709350 & 8709360), Orientation to Health Science Professions (8400110) and Exploration of Health Science Professions (8400310 & 8400210). By offering the middle school courses in the intended progression, each course increases in complexity, rigor and skill level as appropriate.

### **Career and Technical Student Organization (CTSO)**

HOSA: Future Health Professionals is the intercurricular career and technical student organization providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

## **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

**Florida Department of Education  
Curriculum Framework**

**Course Title:** Introduction to Health Science Career Pathways and Career Planning  
**Course Type:** Orientation/Exploratory and Career Planning  
**Career Cluster:** Health Science

**Secondary – Middle School**

Course Number	8709360
CIP Number	148709360M
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	HOSA: Future Health Professionals

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Health Science career cluster.

The content includes but is not limited to a broad overview of the Health Science career cluster, including terminology, careers, history, required skills, and technologies associated with each pathway in the Health Science career cluster.

Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Course Structure**

This program is a planned sequence of instruction consisting of 1 course.

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8709360	Introduction to Health Science Career Pathways and Career Planning	ANY HEALTH OCCUP G *(See DOE approved list)	Semester

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate an understanding of the Therapeutic Services career pathway.
- 02.0 Demonstrate an understanding of the Diagnostic Services career pathway.
- 03.0 Demonstrate an understanding of the Health Informatics career pathway.
- 04.0 Demonstrate an understanding of the Support Services career pathway.
- 05.0 Demonstrate an understanding of the Biotechnology Research and Development career pathway.
- 06.0 Apply leadership and communication skills.

## **Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes.**

- 07.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.
- 08.0 Develop skills to locate, evaluate, and interpret career information.
- 09.0 Identify and demonstrate processes for making short and long term goals.
- 10.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
- 11.0 Understand the relationship between educational achievement and career choices/postsecondary options.
- 12.0 Identify a career cluster and related pathways through an interest assessment that match career and education goals.
- 13.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
- 14.0 Demonstrate knowledge of technology and its application in career fields/clusters.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Introduction to Health Science Career Pathways and Career Planning  
**Course Number:** 8709360  
**Course Length:** Semester

**Course Description:**

Beginning with a broad overview of the Health Science career cluster, students are introduced to the terminology, careers, history, required skills, and technologies associated with each pathway in the Health Science career cluster. Additionally, they will be provided with opportunities to acquire and demonstrate beginning leadership skills.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate an understanding of the Therapeutic Services career pathway. -- The student will be able to:
01.01	Define and use proper terminology associated with the Therapeutic Services career pathway.
01.02	Explore a variety of careers in the Therapeutic Services career pathway, including educational requirements and salary expectations, such as EMS; Nursing; Dentistry; Pharmacy; Sports Medicine.
01.03	Identify common characteristics of the careers in the Therapeutic Services pathway.
01.04	Identify skills and equipment used in Therapeutic Service careers.
01.05	Perform lab activities that are relevant to each career that is being explored.
02.0	Demonstrate an understanding of the Diagnostic Services career pathway. -- The student will be able to:
02.01	Define and use proper terminology associated with the Diagnostic Services career pathway.
02.02	Explore a variety of careers in the Diagnostic Services career pathway. Suggested careers to focus on: Medical Laboratory Services; Radiology; Ophthalmology.
02.03	Identify common characteristics of the careers in the Diagnostic Services career pathway.
02.04	Identify skills required to successfully enter any career in the Diagnostic Services career pathway.
02.05	Perform lab activities related to careers being explored for example blood glucose testing, blood typing, and vision testing.
03.0	Demonstrate an understanding of the Health Informatics career pathway. -- The student will be able to:
03.01	Define and use proper terminology associated with the Health Informatics career pathway.

03.02	Explore a variety of careers in the Health Informatics career pathway.
03.03	Explore the careers available in the Health Informatics; Medical Coding/Biller; Medical Office Administration.
03.04	Identify common characteristics of the careers in the Health Informatics career pathway.
03.05	Identify skills required to successfully enter any career in the Health Informatics career pathway.
03.06	Perform activities related to health informatics careers such as evaluating medical records or bills, office reception and support.
04.0	Demonstrate an understanding of the Support Services career pathway. -- The student will be able to:
04.01	Define and use proper terminology associated with the Support Services career pathway.
04.02	Explore a variety of careers in the Support Services career pathway. Suggested careers: dietary services; central supply; social services; environmental services.
04.03	Identify common characteristics of the careers in the Support Services career pathway.
04.04	Identify skills required to successfully enter any career in the Support Services career pathway.
04.05	Perform lab skills related to covered careers such as diet plan design and housekeeping skills.
05.0	Demonstrate an understanding of the Biotechnology Research and Development career pathway. -- The student will be able to:
05.01	Define and use proper terminology associated with the Biotechnology Research and Development career pathway.
05.02	Explore a variety of careers in the Biotechnology Research and Development career pathway. Suggested careers: Biomedical Engineering and Biomedical Research.
05.03	Identify skills required to successfully enter any career in the Biotechnology Research and Development career pathway.
05.04	Perform lab skills related to covered career, for example: microbiology labs; investigating antisepsis procedures; DNA extraction lab.
05.05	Explore the role of research in medical advancements and discoveries that promote wellness for example development of vaccines and discovery of the structure of DNA.
06.0	Apply leadership and communication skills. -- The student will be able to:
06.01	Increase awareness of leadership opportunities through professional organizations such as Career Technical Student Organizations (CTSOs).
06.02	Identify the characteristics of effective leadership.
06.03	Demonstrate effective communication skills.
06.04	Demonstrate an understanding of how information technology is used in health care.



**Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes.**

The student will be able to:

07.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.

08.0 Develop skills to locate, evaluate, and interpret career information.

09.0 Identify and demonstrate processes for making short and long term goals.

10.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.

11.0 Understand the relationship between educational achievement and career choices/postsecondary options.

12.0 Identify a career cluster and related pathways through an interest assessment that match career and education goals.

13.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.

14.0 Demonstrate knowledge of technology and its application in career fields/clusters.

## Additional Information

### Laboratory Activities

Laboratory activities are an integral part of this program. These activities include instruction in the use of safety procedures, tools, equipment, materials, and processes related to these occupations. Equipment and supplies should be provided to enhance hands-on experiences for students.

### Florida Standards for English Language Development (ELD)

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### Special Notes

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

The intended progression for the Health Science Middle School courses is Introduction to Health Science Career Pathways (8709350 & 8709360), Orientation to Health Science Professions (8400110) and Exploration of Health Science Professions (8400310 & 8400210). By offering the middle school courses in the intended progression, each course increases in complexity, rigor and skill level as appropriate.

### Career Planning

**Effective July 1, 2019, per Section 1003.4156, Florida Statutes (F.S.), for students to meet middle grades promotion requirements, a Career and Education Planning course must be completed in either sixth, seventh, or eighth grade.** These courses should be taught integrating the eight career and education planning course standards. The MyCareerShines powered by Kuder® career planning system is available free of charge to all Florida middle and high schools to assist students in completing research-based career assessments, exploring career options and developing an online academic and career plan.

### Career and Technical Student Organization (CTSO)

HOSA: Future Health Professionals is the intercurricular career and technical student organization providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

## **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Course Title:** Orientation to Marketing Occupations  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Marketing, Sales & Service

**Secondary – Middle School**

Course Number	8800110
CIP Number	020899990R
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b>Course Structure</b> section.
CTSO	DECA

**Purpose**

The purpose of this course is to give students an opportunity to apply knowledge and skills related to the area of Marketing, Sales and Service. This program acquaints students with general marketing activities, the importance of marketing in the economy, career opportunities, and job requirements in marketing occupations. The content includes, but is not limited to, the functions of marketing in the economy, employment requirements for a variety of marketing careers, career development patterns, and the identification of career and technical programs for achieving personal career goals.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8800110	Orientation to Marketing Occupations	BUS ED 1 MKTG 1 MKTG MGMT @7 7G RETAILING @7 7G	Semester

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

### **Standards**

After successfully completing this course, the student will be able to perform the following:

- 01.0 Identify general marketing activities.
- 02.0 Identify career opportunities available in marketing.
- 03.0 Identify employment requirements for marketing careers.
- 04.0 Identify work values and goal setting tools.
- 05.0 Identify programs instrumental in developing career choices.
- 06.0 Identify human relations skills that enable students to succeed in their career goals.
- 07.0 Identify advantages of DECA and Collegiate DECA.
- 08.0 Identify foundational skills required in marketing careers.
- 09.0 Identify the functions of marketing.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Orientation to Marketing Occupations  
**Course Number:** 8800110  
**Course Length:** Semester

**Course Description:**

Beginning with a broad overview of the Marketing, Sales and Service career cluster, students are introduced to the terminology, careers, history, required skills, and technologies associated with each pathway in the Marketing, Sales and Service career cluster. Additionally, they will be provided with opportunities to acquire and demonstrate beginning leadership skills and to participate in hands-on activities.

<b>CTE Standards and Benchmarks</b>	
01.0	Identify general marketing activities – the student will be able to:
01.01	Explain the role of marketing in the economy.
01.02	Identify and define selected marketing terms.
01.03	Identify the major marketing activities.
02.0	Identify career opportunities available in marketing – the student will be able to:
02.01	Identify career opportunities which involve selling.
02.02	Identify career opportunities which involve purchasing.
02.03	Identify career opportunities which involve promotion.
02.04	Identify career opportunities which involve risk management.
02.05	Identify career opportunities which involve pricing.
02.06	Identify career opportunities which involve finance.
02.07	Identify career opportunities which involve marketing information management.
02.08	Identify career opportunities which involve product/service planning.
02.09	Identify career opportunities which involve distribution.
02.10	Identify career opportunities at the entry, career sustaining, specialist, and manager/entrepreneur level for marketing.
03.0	Identify employment requirements for marketing careers – the student will be able to:

## CTE Standards and Benchmarks

03.01 Identify employment requirements in the area of selling.

03.02 Identify employment requirements in the area of purchasing.

03.03 Identify employment requirements in the area of promotion.

03.04 Identify employment requirements in the area of risk management.

03.05 Identify employment requirements in the area of pricing.

03.06 Identify employment requirements in the area of finance.

03.07 Identify employment requirements in the area of marketing information management.

03.08 Identify employment requirements in the area of product/service planning.

03.09 Identify employment requirements in the area of distribution.

03.10 Identify employment requirements at the entry, career sustaining, specialist, and manager/entrepreneur level for marketing.

04.0 Identify work values and goal setting tools – the student will be able to:

04.01 Explain how values are acquired and changed.

04.02 Explain how values affect work.

04.03 Identify goal setting tools including a self-inventory and interest survey.

05.0 Identify programs instrumental in developing career choices – the student will be able to:

05.01 Identify senior high school Marketing Education programs available to students who desire a career in marketing (e.g., fashion marketing, travel and tourism, finance, entrepreneurship, international marketing).

05.02 Identify post-secondary education opportunities in marketing (e.g., real estate, insurance, hospitality, customer service, travel).

06.0 Identify human relations skills that will enable students to succeed in their career goals – the student will be able to:

06.01 Identify acceptable grooming and health habits.

06.02 State the importance of dependability and responsible behavior.

06.03 State the importance of a positive attitude.

06.04 State the importance of getting along with co-workers, employers, and other business associates.

07.0 Identify advantages of DECA and Collegiate DECA, Associations of Marketing Students – the student will be able to:

## CTE Standards and Benchmarks

07.01 Identify DECA and Collegiate DECA and the role of each organization in marketing education.

07.02 Identify the purposes of DECA and Collegiate DECA.

07.03 Identify the advantages of student involvement in DECA and Collegiate DECA.

07.04 Identify the leadership opportunities available through DECA and Collegiate DECA.

07.05 Identify the competitive event opportunities available through DECA and Collegiate DECA.

07.06 Identify local DECA and Collegiate DECA chapters.

08.0 Identify foundational skills required in marketing careers – the student will be able to:

08.01 Identify economic skills used in marketing.

08.02 Identify marketing, business, and entrepreneurship skills used in marketing.

08.03 Identify communication and interpersonal skills used in marketing.

08.04 Identify professional development skills used in marketing.

08.05 Identify human resource skills used in marketing.

08.06 Identify computer skills used in marketing.

09.0 Identify the functions of marketing – the student will be able to:

09.01 Identify the role of risk management.

09.02 Identify the role of selling.

09.03 Identify the role of promotion.

09.04 Identify the role of pricing.

09.05 Identify the role of purchasing.

09.06 Identify the role of marketing information management.

09.07 Identify the role of product/service management.

09.08 Identify the role of distribution.

09.09 Identify the role of finance.



## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career Planning**

**Effective July 1, 2019, per Section 1003.4156, Florida Statutes (F.S.), for students to meet middle grades promotion requirements, a Career and Education Planning course must be completed in either sixth, seventh, or eighth grade.** These courses should be taught integrating the eight career and education planning course standards. The MyCareerShines powered by Kuder® career planning system is available free of charge to all Florida middle and high schools to assist students in completing research-based career assessments, exploring career options and developing an online academic and career plan.

### **Career and Technical Student Organization (CTSO)**

DECA is the intercurricular career and technical student organization(s) providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

## **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Course Title:** Exploration of Marketing Occupations  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Marketing, Sales & Service

**Secondary – Middle School**

Course Number	8800210
CIP Number	02089999EX
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	DECA

**Purpose**

The purpose of this program is to give students an opportunity to apply knowledge and skills related to the area of Marketing, Sales and Service. This program provides students with initial exposure to the skills and attitudes associated with a broad range of occupations relating to careers in marketing, including job requirements and tasks performed, and assists students in making informed decisions regarding their future academic and occupational goals.

Instruction provides opportunities for students to explore employment opportunities and requirements, job application procedures, tasks performed by workers, as well as leadership and human relations skills in sales and marketing occupations including those that retail or market products and services, and process/manage or distribute materials.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8800210	Exploration of Marketing Occupations	BUS ED 1 MKTG 1 MKTG MGMT 7G	Semester

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

### **Standards**

After successfully completing this course, the student will be able to perform the following:

- 01.0 Identify the basic economic environment in marketing.
- 02.0 Identify the education needed, tasks performed, and employment opportunities for individuals who wish to enter occupations related to product merchandising.
- 03.0 Identify the education needed, tasks performed, and employment opportunities for individuals who wish to enter marketing services occupations.
- 04.0 Identify procedures involved in choosing, applying for, keeping, and progressing in marketing occupations.
- 05.0 Explain the impact of technology on marketing occupations.
- 06.0 Demonstrate computer literacy.
- 07.0 Develop individualized education and career plans related to marketing occupational goals.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Exploration of Marketing Occupations  
**Course Number:** 8800210  
**Course Length:** Semester

**Course Description:** Beginning with a broad overview of the Marketing, Sales and Service career cluster, students are introduced to the terminology, careers, history, required skills, and technologies associated with each pathway in the Marketing, Sales and Service career cluster. Additionally, they will be provided with opportunities to acquire and demonstrate beginning leadership skills and to participate in hands-on activities.

<b>CTE Standards and Benchmarks</b>	
01.0	Identify the basic economic environment in marketing – the student will be able to:
01.01	Explain private enterprise.
01.02	Explain profit motive.
01.03	Identify the relationships between people's wants and needs and marketing activities.
02.0	Identify the education needed, tasks performed, and employment opportunities for individuals who wish to enter occupations related to product merchandising and the online marketplace – the student will be able to:
02.01	Identify product merchandising related occupations (e.g., fashion, retailing, food marketing, home furnishings, sporting goods, parts marketing, specialty products, wholesaling, business ownership).
02.02	Identify the basic tasks performed by employees within each of the occupations.
02.03	Identify employment opportunities available in each of the occupations.
02.04	State the educational requirements to prepare a student for entry-level employment in occupations related to product merchandising.
02.05	Identify educational programs available in the state for advanced training in occupations related to product merchandising in secondary through postsecondary education.
03.0	Identify the education needed, tasks performed, and employment opportunities for individuals who wish to enter marketing services occupations – the student will be able to:
03.01	Identify marketing services occupations (e.g., food service, hospitality, travel and tourism, finance, international marketing, insurance, real estate, entrepreneurship).
03.02	Identify the basic tasks performed by employees within each of the occupations.
03.03	Identify employment opportunities available for each of the occupations.
03.04	State the educational requirements to prepare students for entry-level employment in marketing services occupations.

## CTE Standards and Benchmarks

03.05	Identify educational programs available in the state for advanced training in specific occupations related to marketing services in secondary through postsecondary education.
04.0	Identify procedures involved in choosing, applying for, keeping, and progressing in marketing occupations – the student will be able to:
04.01	Identify the tasks involved in choosing a marketing occupation (self-inventory, interest survey, research, aptitude test batteries).
04.02	List the steps in applying for a job, including the aspects of online job searches.
04.03	Complete a sample job application form using digital apps.
04.04	Demonstrate the necessary communication skills involved in online, virtual/video conferences and in-person interviews.
04.05	Identify those characteristics that help people obtain, hold, and progress in marketing-related occupations (for example, digital citizenship, personal branding, and social media etiquette).
04.06	Develop an individual career plan including a four to six year plan for advanced training in a marketing career.
04.07	Use appropriate social media sites and online portfolios.
05.0	Explain the impact of technology on marketing occupations – the student will be able to:
05.01	Explain how technology, including interactive social media and video storytelling strategies, has changed the way retail businesses operate.
05.02	Explain how technology, including interactive social media and video storytelling strategies, has changed the way wholesale businesses operate.
05.03	Explain how technology, including interactive social media and video storytelling strategies, has changed the way product merchandising businesses operate.
05.04	Explain how technology, including interactive social media and video storytelling strategies, has changed the way marketing services businesses operate.
06.0	Demonstrate computer literacy – the student will be able to:
06.01	Define computer related terms (computer, data input, output, hardware, software, language, processing, memory, program, terminal, peripheral devices, keyboard characters, virtual reality, 3-dimensional devices).
06.02	Operate a computer using online platforms and applications.
06.03	Identify the advantages and disadvantages of the use of different computer formats and operating systems.
06.04	Describe some general uses of computers, smart phones and tablets.
06.05	Identify the safety precautions that must be observed in using computer equipment.
06.06	Explain some of the legal and ethical issues involved in using a computer and online/ social media.
06.07	Use the Internet to explore selected occupations.

## CTE Standards and Benchmarks

07.0 Develop individualized education and career plans related to marketing occupational goals – the student will be able to:

07.01 Complete self-assessments and career analysis activities to determine potential success in marketing career fields.

07.02 Research a marketing-related career; identify employment opportunities and educational requirements for advancement.

07.03 Project the career level and earnings required to obtain a desired standard of living.

07.04 Utilize career information to develop an individualized career plan; include a plan to meet educational requirements.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

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### **Special Notes**

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### **Career Planning**

**Effective July 1, 2019, per Section 1003.4156, Florida Statutes (F.S.), for students to meet middle grades promotion requirements, a Career and Education Planning course must be completed in either sixth, seventh, or eighth grade.** These courses should be taught integrating the eight career and education planning course standards. The MyCareerShines powered by Kuder® career planning system is available free of charge to all Florida middle and high schools to assist students in completing research-based career assessments, exploring career options and developing an online academic and career plan.

### **Career and Technical Student Organization (CTSO)**

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### **Accommodations**



Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

Course Title: Fundamentals of Culinary Careers  
Course Type: Orientation/Exploratory  
Career Cluster: Hospitality & Tourism

**Secondary – Middle School**

Program Number	8809200
CIP Number	0420040106
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b>Course Structure</b> section.
CTSO	FCCLA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Hospitality & Tourism career cluster. The content includes but is not limited to the development of leadership skills, communication skills, and employability skills; resource management; exploration of careers in the culinary field; the importance of health and safety in the culinary environment; and the use of technology in culinary-related careers.

Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8809200	Fundamentals of Culinary Careers	FAM CON SCI CULINARY 7G	Semester

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document. **Special Note:** The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate leadership skills.
- 02.0 Demonstrate employability skills as they relate to the culinary industry.
- 03.0 Demonstrate effective communication skills.
- 04.0 Analyze careers in the culinary industry.
- 05.0 Practice safety, sanitation, and storage procedures in food preparation.
- 06.0 Identify and demonstrate proper use of culinary equipment and tools.
- 07.0 Read and interpret a recipe accurately.
- 08.0 Relate the principles of nutrition to menu development.
- 09.0 Analyze factors that affect menu development.
- 10.0 Demonstrate basic food preparation skills.
- 11.0 Exhibit efficient operation of the back-of-the-house.
- 12.0 Exhibit efficient operation of the front-of-the-house.
- 13.0 Demonstrate creative food presentation techniques.
- 14.0 Demonstrate the skills involved in self-sustainability as it relates to food.

Florida Department of Education  
Student Performance Standards

Course Title: Fundamentals of Culinary Careers  
Course Number: 8809200  
Course Credit: Semester

Course Description:

This course includes but is not limited to the development of leadership skills, communication skills, and employability skills; resource management; exploration of careers in the culinary; food safety and sanitation; safe, proper use of culinary tools/equipment; interpreting recipes and developing menus; basic food preparation skills; front-of-the-house and back-of-the-house responsibilities; artistic presentation of food; and the use of technology in the culinary field.

CTE Standards and Benchmarks	
01.0	Demonstrate leadership skills. The student will be able to:
01.01	Identify roles and responsibilities of members of professional and community service organizations, including career and technical student organizations.
01.02	Work cooperatively as a group member to achieve organizational goals.
01.03	Demonstrate leadership roles and organizational responsibilities.
01.04	Identify and utilize the FCCLA planning process.
01.05	Develop a personal portfolio project.
02.0	Demonstrate employability skills as they relate to the culinary industry. The student will be able to:
02.01	Practice teamwork skills.
02.02	Practice employability skills.
02.03	Demonstrate positive work ethics and identify negative work ethics that can contribute to success in the workplace.
02.04	Exhibit work expectations of the food service employer.
02.05	Apply math, reading, science, and critical thinking skills as they relate to the culinary industry.
03.0	Demonstrate effective communication skills. The student will be able to:
03.01	Describe why communication is the basis for all relationships.

## CTE Standards and Benchmarks

03.02 Demonstrate the ability to function as a team member in a diverse environment.

03.03 Develop and demonstrate personal and professional etiquette.

04.0 Analyze careers in the culinary industry. The student will be able to:

04.01 Describe careers in the culinary and hospitality industry.

04.02 Classify careers from entry level to professional level.

04.03 Explore entrepreneurship opportunities in the culinary industry.

04.04 Research and present information on a culinary career to include roles and responsibilities, opportunities for employment, and the requirements for education and training. (i.e. FCCLA STAR event "Life Event Planning")

05.0 Practice safety, sanitation, and storage procedures in food preparation. The student will be able to:

05.01 Demonstrate practices and procedures that assure personal hygiene.

05.02 Identify common food borne illnesses, their causes and symptoms.

05.03 Demonstrate ways to prevent food borne illnesses.

05.04 Identify and practice food service safety, storage and sanitation procedures.

06.0 Identify and demonstrate proper use of culinary equipment and tools. The student will be able to:

06.01 Identify and demonstrate measuring utensils for the appropriate ingredient.

06.02 Identify and demonstrate the proper and safe use and care of culinary tools.

06.03 Identify and demonstrate the proper and safe use and care of culinary equipment.

07.0 Read and interpret a recipe accurately. The student will be able to:

07.01 Demonstrate an understanding of the purpose and preparation of standardized recipes.

07.02 Define mise en place and the relationship of organizational skills to productivity.

07.03 Define and demonstrate common culinary terms used in recipes.

07.04 Apply common abbreviations and equivalents used in recipes.

07.05 Demonstrate recipe conversions.

## CTE Standards and Benchmarks

08.0 Relate the principles of nutrition to menu development. The student will be able to:

08.01 Describe the purpose of the essential nutrients and list foods providing them.

08.02 Describe the food groups on the USDA Dietary Guideline and the nutrients contained within each group.

08.03 Explain your District's Wellness Policy.

08.04 Interpret the components of food labels and relationship to wellness.

08.05 Identify fad diets and how they affect overall nutrition.

08.06 Develop menus using various dietary guidelines.

08.07 Develop menus that meet the special dietary needs of culinary customers.

09.0 Analyze factors that affect menu development. The student will be able to:

09.01 Identify factors that affect menu planning, i.e. season, cultural influences, trends, and technology.

09.02 Analyze food costs and the impact on menu development. i.e. unit pricing

09.03 Create a variety of menus for various types of culinary establishments.

09.04 Practice time management in the production of meal menus.

10.0 Demonstrate basic food preparation skills. The student will be able to:

10.01 Demonstrate the appropriate techniques for measuring and weighing.

10.02 Practice knife skills.

10.03 Demonstrate various cooking techniques.

10.04 Demonstrate ability to select, store, prepare, and serve nutritious and aesthetically pleasing food.

11.0 Exhibit efficient operation of the back-of-the-house. The student will be able to:

11.01 Define back-of-the-house.

11.02 Identify the back-of-the-house preparation stations.

11.03 Demonstrate the culinary duties and responsibilities of the back-of-the-house staff.

## CTE Standards and Benchmarks

11.04 Follow industry guidelines for appropriate dress for back of the house staff.

11.05 Identify technology utilized in the back of house culinary industry. (ie. thermocirculator, point-of-sale, etc.).

12.0 Exhibit efficient operation of the front-of-the-house. The student will be able to:

12.01 Define front-of-the-house.

12.02 Identify and demonstrate the culinary duties and responsibilities of the front-of-the-house staff, i.e. table set up, accurately recording customer requests, practice appropriate serving techniques and collecting money.

12.03 Follow industry guidelines for appropriate dress for front of the house staff.

12.04 Analyze the impact of the employee's attitude, appearance, and actions on customer satisfaction.

12.05 Apply concepts of quality service to ensure customer satisfaction.

12.06 Identify technology utilized in the culinary industry. (ie. point of sale, inventory controls, etc.).

13.0 Demonstrate creative food presentation techniques. The student will be able to:

13.01 Identify the criteria for achieving an aesthetically pleasing plate.

13.02 Conduct sensory evaluations of plated presentations.

13.03 Demonstrated plated presentations.

13.04 Practice various garnishing techniques utilizing a variety of garnishing tools to achieve an edible centerpiece

14.0 Demonstrate the skills involved in self-sustainability as it relates to food. The student will be able to:

14.01 Identify the importance of seasonality of foods.

14.02 Distinguish seasonal food pricing in relation to menu planning.

14.03 Identify ways to preserve food (i.e. canning, frozen, dehydrated, etc.).

14.04 Develop a food budget, distinguishing between processed and scratch-made foods.

14.05 Establish and care for a seasonal garden.

14.06 Analyze the relationship between resources and attainment of lifestyle.



## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

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### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career Planning**

The requirements of section 1003.4156 (1) (e), Florida Statutes, have been integrated into this course. The statute requires that students take a career and education planning course that must result in a completed personalized academic and career plan for the student; must emphasize the importance of entrepreneurship skills; must emphasize technology or the application of technology in career fields; and, beginning in the 2014-2015 academic year, must provide information from the Department of Economic Opportunity's economic security report as described in section 445.07, Florida Statutes.

### **Career and Technical Student Organization (CTSO)**

Family, Career and Community Leaders of America (FCCLA) is the inter-curricular career and technical student organization providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

## **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Course Title:** Fundamentals of Culinary Careers and Career Planning  
**Course Type:** Orientation/Exploratory and Career Planning  
**Career Cluster:** Hospitality & Tourism

**Secondary – Middle School**

Program Number	8809300
CIP Number	0420040107
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b>Course Structure</b> section.
CTSO	FCCLA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Hospitality & Tourism career cluster. The content includes but is not limited to the development of leadership skills, communication skills, and employability skills; resource management; exploration of careers in the culinary field; the importance of health and safety in the culinary environment; and the use of technology in culinary-related careers.

Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

## **Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8809300	Fundamentals of Culinary Careers and Career Planning	FAM CON SCI CULINARY 7G	Semester

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate leadership skills.
- 02.0 Demonstrate employability skills as they relate to the culinary industry.
- 03.0 Demonstrate effective communication skills
- 04.0 Analyze careers in the culinary industry.
- 05.0 Practice safety, sanitation, and storage procedures in food preparation.
- 06.0 Identify and demonstrate proper use of culinary equipment and tools.
- 07.0 Read and interpret a recipe accurately.
- 08.0 Relate the principles of nutrition to menu development.
- 09.0 Analyze factors that affect menu development.
- 10.0 Demonstrate basic food preparation skills.
- 11.0 Exhibit efficient operation of the back-of-the-house.
- 12.0 Exhibit efficient operation of the front-of-the-house.
- 13.0 Demonstrate creative food presentation techniques.
- 14.0 Demonstrate the skills involved in self-sustainability as it relates to food.

## **Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes.**

- 15.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.
- 16.0 Develop skills to locate, evaluate, and interpret career information.
- 17.0 Identify and demonstrate processes for making short and long term goals.
- 18.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
- 19.0 Understand the relationship between educational achievement and career choices/postsecondary options.
- 20.0 Identify a career cluster and related pathways through an interest assessment that match career and education goals.
- 21.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
- 22.0 Demonstrate knowledge of technology and its application in career fields/clusters.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Fundamentals of Culinary Careers and Career Planning  
**Course Number:** 8809300  
**Course Credit:** Semester

**Course Description:**

This course includes but is not limited to the development of leadership skills, communication skills, and employability skills; resource management; exploration of careers in the culinary; food safety and sanitation; safe, proper use of culinary tools/equipment; interpreting recipes and developing menus; basic food preparation skills; front-of-the-house and back-of-the-house responsibilities; artistic presentation of food; and the use of technology in the culinary field.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate leadership skills. The student will be able to:
01.01	Identify roles and responsibilities of members of professional and community service organizations, including career and technical student organizations.
01.02	Work cooperatively as a group member to achieve organizational goals.
01.03	Demonstrate leadership roles and organizational responsibilities.
01.04	Identify and utilize the FCCLA planning process.
01.05	Develop a personal portfolio project.
02.0	Demonstrate employability skills as they relate to the culinary industry. The student will be able to:
02.01	Identify personal talents and abilities that can contribute to positive self-esteem and success in the work place.
02.02	Practice teamwork skills.
02.03	Practice employability skills.
02.04	Demonstrate positive work ethics and identify negative work ethics that can contribute to success in the workplace.
02.05	Exhibit work expectations of the food service employer.
02.06	Apply math, reading, science, and critical thinking skills as they relate to the culinary industry.

## CTE Standards and Benchmarks

03.0 Demonstrate effective communication skills. The student will be able to:

03.01 Develop and demonstrate personal and professional etiquette.

03.02 Describe why communication is the basis for all relationships.

03.03 Demonstrate the ability to function as a team member in a diverse environment.

04.0 Analyze careers in the culinary industry. The student will be able to:

04.01 Describe careers in the culinary and hospitality industry.

04.02 Classify careers from entry level to professional level.

04.03 Explore entrepreneurship opportunities in the culinary industry.

04.04 Research and present information on a culinary career to include roles and responsibilities, opportunities for employment, and the requirements for education and training. (i.e. FCCLA STAR event "Life Event Planning").

05.0 Practice safety, sanitation, and storage procedures in food preparation. The student will be able to:

05.01 Demonstrate practices and procedures that assure personal hygiene.

05.02 Identify common food borne illnesses, their causes and symptoms.

05.03 Demonstrate ways to prevent food borne illnesses.

05.04 Identify and practice food service safety, storage and sanitation procedures.

06.0 Identify and demonstrate proper use of culinary equipment and tools. The student will be able to:

06.01 Identify and demonstrate measuring utensils for the appropriate ingredient.

06.02 Identify and demonstrate the proper and safe use and care of culinary tools.

06.03 Identify and demonstrate the proper and safe use and care of culinary equipment.

07.0 Read and interpret a recipe accurately. The student will be able to:

07.01 Demonstrate an understanding of the purpose and preparation of standardized recipes.

07.02 Define mise en place and the relationship of organizational skills to productivity.

07.03 Define and demonstrate common culinary terms used in recipes.

## CTE Standards and Benchmarks

07.04 Apply common abbreviations and equivalents used in recipes.

07.05 Demonstrate recipe conversions.

08.0 Relate the principles of nutrition to menu development. The student will be able to:

08.01 Describe the purpose of the essential nutrients and list foods providing them.

08.02 Describe the food groups on the USDA Dietary Guideline and the nutrients contained within each group.

08.03 Explain your District's Wellness Policy.

08.04 Interpret the components of food labels and relationship to wellness.

08.05 Identify fad diets and how they affect overall nutrition.

08.06 Develop menus using various dietary guidelines.

08.07 Develop menus that meet the special dietary needs of culinary customers.

09.0 Analyze factors that affect menu development. The student will be able to:

09.01 Identify factors that affect menu planning, i.e. season, cultural influences, trends, and technology.

09.02 Analyze food costs and the impact on menu development. i.e. unit pricing

09.03 Create a variety of menus for various types of culinary establishments.

09.04 Practice time management in the production of meal menus.

10.0 Demonstrate basic food preparation skills. The student will be able to:

10.01 Demonstrate the appropriate techniques for measuring and weighing.

10.02 Practice knife skills.

10.03 Demonstrate various cooking techniques.

10.04 Demonstrate ability to select, store, prepare, and serve nutritious and aesthetically pleasing food.

11.0 Exhibit efficient operation of the back-of-the-house. The student will be able to:

11.01 Define back-of-the-house.



## CTE Standards and Benchmarks

11.02 Identify the back-of-the-house preparation stations.

11.03 Demonstrate the culinary duties and responsibilities of the back-of-the-house staff.

11.04 Follow industry guidelines for appropriate dress for back of the house staff.

11.05 Identify technology utilized in the back of house culinary industry. (i.e. thermocirculator, point-of-sale, etc.).

12.0 Exhibit efficient operation of the front-of-the-house. The student will be able to:

12.01 Define front-of-the-house.

12.02 Identify and demonstrate the culinary duties and responsibilities of the front-of-the-house staff, i.e. table set up, accurately recording customer requests, practice appropriate serving techniques and collecting money.

12.03 Follow industry guidelines for appropriate dress for front of the house staff.

12.04 Analyze the impact of the employee's attitude, appearance, and actions on customer satisfaction.

12.05 Apply concepts of quality service to ensure customer satisfaction.

12.06 Identify technology utilized in the culinary industry. (i.e. point of sale, inventory controls, etc.).

13.0 Demonstrate creative food presentation techniques. The student will be able to:

13.01 Identify the criteria for achieving an aesthetically pleasing plate.

13.02 Conduct sensory evaluations of plated presentations.

13.03 Demonstrated plated presentations.

13.04 Practice various garnishing techniques utilizing a variety of garnishing tools to achieve an edible centerpiece

14.0 Demonstrate the skills involved in self-sustainability as it relates to food. The student will be able to:

14.01 Identify the importance of seasonality of foods.

14.02 Distinguish seasonal food pricing in relation to menu planning.

14.03 Identify ways to preserve food (i.e. canning, frozen, dehydrated, etc.).

14.04 Develop a food budget, distinguishing between processed and scratch-made foods.

14.05 Establish and care for a seasonal garden.

## CTE Standards and Benchmarks

14.06 Analyze the relationship between resources and attainment of lifestyle.

**Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes.**

The student will be able to:

15.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.

16.0 Develop skills to locate, evaluate, and interpret career information.

17.0 Identify and demonstrate processes for making short and long term goals.

18.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.

19.0 Understand the relationship between educational achievement and career choices/postsecondary options.

20.0 Identify a career cluster and related pathways through an interest assessment that match career and education goals.

21.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.

22.0 Demonstrate knowledge of technology and its application in career fields/clusters.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career Planning**

**Effective July 1, 2019, per Section 1003.4156, Florida Statutes (F.S.), for students to meet middle grades promotion requirements, a Career and Education Planning course must be completed in either sixth, seventh, or eighth grade.** These courses should be taught integrating the eight career and education planning course standards. The MyCareerShines powered by Kuder® career planning system is available free of charge to all Florida middle and high schools to assist students in completing research-based career assessments, exploring career options and developing an online academic and career plan.

### **Career and Technical Student Organization (CTSO)**

Family, Career and Community Leaders of America (FCCLA) is the inter-curricular career and technical student organization providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

## **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Course Title:** Exploring Hospitality and Tourism Careers  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Hospitality & Tourism

**Secondary – Middle School**

Program Number	8850350
CIP Number	148850350M
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b>Course Structure</b> section.
CTSO	FCCLA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Hospitality & Tourism career cluster. The content includes but is not limited to the management, marketing and operations of restaurants and other food services, lodging, attractions, recreation events and travel related services. Reinforcement of academic skills occurs through classroom instruction and applied laboratory procedures. Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8850350	Exploring Hospitality and Tourism Careers	FAM CON SCI HOTEL TRNG 7 G	Semester

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Practice safety, sanitation and storage procedures in food preparation.
- 02.0 Demonstrate an understanding of the Restaurant and Food/Beverage Services career pathway.
- 03.0 Demonstrate an understanding of the Lodging career pathway.
- 04.0 Demonstrate an understanding of the Travel and Tourism career pathway.
- 05.0 Demonstrate an understanding of the Recreation, Amusements and Attractions career pathway.
- 06.0 Demonstrate an understanding of the cruise line industry career pathway.
- 07.0 Demonstrate an understanding of other countries' culture as related to the Travel/Tourism industry.
- 08.0 Apply leadership and communication skills.
- 09.0 Describe how information technology is used in the Hospitality and Tourism career cluster.
- 10.0 Use information technology tools.

Florida Department of Education  
Student Performance Standards

Course Title: Exploring Hospitality and Tourism Careers  
Course Number: 8850350  
Course Credit: Semester

Course Description:

Beginning with a broad overview of the Hospitality and Tourism career cluster, students are introduced to the terminology, careers, history, required skills, and technologies associated with each pathway in the Hospitality and Tourism career cluster. Additionally, they will be provided with opportunities to acquire and demonstrate beginning leadership skills.

01.0	Practice safety, sanitation, and storage procedures in food preparation. The student will be able to:
01.01	Demonstrate practices and procedures that assure personal and workplace health and hygiene.
01.02	List common food borne illnesses and their causes.
01.03	Demonstrate ways to prevent food borne illnesses.
01.04	Identify and practice food service safety and sanitation procedures.
02.0	Demonstrate an understanding of the Restaurant and Food/Beverage Services career pathway. The student will be able to:
02.01	Define and use proper terminology associated with the Restaurant and Food/Beverage Services career pathway.
02.02	Describe some of the careers available in the Restaurant and Food/Beverage Services career pathway.
02.03	Identify common characteristics of the careers in the Restaurant and Food/Beverage Services career pathway.
02.04	Research the history of the Restaurant and Food/Beverage Services career pathway and describe how the associated careers have evolved and impacted society.
02.05	Identify skills required to successfully enter any career in the Restaurant and Food/Beverage Services career pathway.
02.06	Describe technologies associated in careers within the Restaurant and Food/Beverage Services career pathway.
03.0	Demonstrate an understanding of the Lodging career pathway. The student will be able to:
03.01	Define and use proper terminology associated with the Lodging career pathway.

03.02	Describe some of the careers available in the Lodging career pathway.
03.03	Identify common characteristics of the careers in the Lodging career pathway.
03.04	Research the history of the Lodging career pathway and describe how the careers have evolved and impacted society.
03.05	Identify skills required to successfully enter any career in the Lodging career pathway.
03.06	Describe technologies associated in careers within the Lodging career pathway.
04.0	Demonstrate an understanding of the Travel and Tourism career pathway. The student will be able to:
04.01	Define and use proper terminology associated with the Travel and Tourism career pathway.
04.02	Describe some of the careers available in the Travel and Tourism career pathway.
04.03	Identify common characteristics of the careers in the Travel and Tourism career pathway.
04.04	Research the history of the Travel and Tourism career pathway and describe how the careers have evolved and impacted society.
04.05	Identify skills required to successfully enter any career in the Travel and Tourism career pathway.
04.06	Describe technologies associated in careers within the Travel and Tourism career pathway.
04.07	Define the different types of tourism within the industry.
05.0	Demonstrate an understanding of the Recreation, Amusements and Attractions career pathway. The student will be able to:
05.01	Define and use proper terminology associated with the Recreation, Amusements and Attractions career pathway.
05.02	Describe some of the careers available in the Recreation, Amusements and Attractions career pathway.
05.03	Identify common characteristics of the careers in the Recreation, Amusements and Attractions career pathway.
05.04	Research the history of the Recreation, Amusements and Attractions career pathway and describe how the careers have evolved and impacted society.
05.05	Identify skills required to successfully enter any career in the Recreation, Amusements and Attractions career pathway.
05.06	Describe technologies associated in careers within the Recreation, Amusements and Attractions career pathway.
06.0	Demonstrate an understanding of the cruise line industry career pathway. The student will be able to:
06.01	Discuss the establishment and history of the Cruise Industry.
06.02	Describe some of the careers available in the Cruise Industry career pathway.



06.03	Identify skills required to successfully enter any career in the Cruise Industry career pathway.
06.04	Describe technologies associated in careers within the Cruise Industry career pathway.
06.05	Identify terminology used in the Cruise Industry
07.0	Demonstrate an understanding of other country's culture as related to the Travel/Tourism Industry. The student will be able to:
07.01	Identify major characteristics of a country's culture.
07.02	Demonstrate knowledge of the Food/Beverage service industry in other countries.
07.03	Demonstrate knowledge of the Lodging service industry in other countries.
07.04	Demonstrate knowledge of the Recreation, Amusements and Attractions industry in other countries.
07.05	Demonstrate knowledge of the Travel/Tourism industry in other countries.
08.0	Apply leadership and communication skills. The student will be able to:
08.01	Discuss the establishment and history of the FCCLA organization.
08.02	Identify the characteristics and responsibilities of organizational leaders.
08.03	Demonstrate parliamentary procedure skills during a meeting.
08.04	Participate on a committee which has an assigned task and report to the class.
08.05	Demonstrate effective communication skills through delivery of a speech, a slide presentation, or conducting a demonstration.
08.06	Use a computer to assist in the completion of a project related to the Hospitality and Tourism career cluster.
09.0	Describe how information technology is used in the Hospitality and Tourism career cluster. The student will be able to:
09.01	Identify information technology (IT) careers in the Hospitality and Tourism career cluster, including the responsibilities, tasks and skills they require.
09.02	Relate information technology project management concepts and terms to careers in the Hospitality and Tourism career cluster.
09.03	Manage information technology components typically used in professions of the Hospitality and Tourism career cluster.
09.04	Identify security-related ethical and legal IT issues faced by professionals in the Hospitality and Tourism career cluster.
10.0	Use information technology tools. The student will be able to:
10.01	Identify the functions of web browsers, and use them to access the World Wide Web and other computer resources typically used in the Hospitality and Tourism career cluster.

10.02 Use e-mail clients to send simple messages and files to other Internet users.
10.03 Demonstrate ways to communicate effectively using Internet technology.
10.04 Use different types of web search engines effectively to locate information relevant to the Hospitality and Tourism career cluster.

**Additional Information**

**Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

**Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

**English Language Development (ELD) Standards Special Notes:**

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL’s need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

**Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

Family, Career & Community Leaders of America, Inc. (FCCLA) is the inter-curricular career and technical student organization providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

## **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Course Title:** Exploring Hospitality and Tourism Careers and Career Planning  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Hospitality & Tourism

**Secondary – Middle School**

Program Number	8850360
CIP Number	148850350M
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b>Course Structure</b> section.
CTSO	FCCLA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Hospitality & Tourism career cluster. The content includes but is not limited to the management, marketing and operations of restaurants and other food services, lodging, attractions, recreation events and travel related services. Reinforcement of academic skills occurs through classroom instruction and applied laboratory procedures.

Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8850360	Exploring Hospitality and Tourism Careers and Career Planning	FAM CON SCI HOTEL TRNG 7 G	Semester

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Practice safety, sanitation and storage procedures in food preparation.
- 02.0 Demonstrate an understanding of the Restaurant and Food/Beverage Services career pathway.
- 03.0 Demonstrate an understanding of the Lodging career pathway.
- 04.0 Demonstrate an understanding of the Travel and Tourism career pathway.
- 05.0 Demonstrate an understanding of the Recreation, Amusements and Attractions career pathway.
- 06.0 Demonstrate an understanding of the Cruise Line Industry career pathway.
- 07.0 Demonstrate an understanding of other countries' culture as related to the Travel/Tourism industry.
- 08.0 Apply leadership and communication skills.
- 09.0 Describe how information technology is used in the Hospitality and Tourism career cluster.
- 10.0 Use information technology tools.

## **Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes:**

- 11.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.
- 12.0 Develop skills to locate, evaluate, and interpret career information.
- 13.0 Identify and demonstrate processes for making short and long term goals.
- 14.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
- 15.0 Understand the relationship between educational achievement and career choices/postsecondary options.
- 16.0 Identify a career cluster and related pathways through an interest assessment that match career and education goals.
- 17.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
- 18.0 Demonstrate knowledge of technology and its application in career fields/clusters.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Exploring Hospitality and Tourism Careers and Career Planning  
**Course Number:** 8850360  
**Course Credit:** Semester

**Course Description:**

Beginning with a broad overview of the Hospitality and Tourism career cluster, students are introduced to the terminology, careers, history, required skills, and technologies associated with each pathway in the Hospitality and Tourism career cluster. Additionally, they will be provided with opportunities to acquire and demonstrate beginning leadership skills.

<b>CTE Standards and Benchmarks</b>	
01.0	Practice safety, sanitation, and storage procedures in food preparation. The student will be able to:
01.01	Demonstrate practices and procedures that assure personal and workplace health and hygiene.
01.02	List common food borne illnesses and their causes.
01.03	Demonstrate ways to prevent food borne illnesses.
01.04	Identify and practice food service safety and sanitation procedures.
02.0	Demonstrate an understanding of the Restaurant and Food/Beverage Services career pathway. The student will be able to:
02.01	Define and use proper terminology associated with the Restaurant and Food/Beverage Services career pathway.
02.02	Describe some of the careers available in the Restaurant and Food/Beverage Services career pathway.
02.03	Identify common characteristics of the careers in the Restaurant and Food/Beverage Services career pathway.
02.04	Research the history of the Restaurant and Food/Beverage Services career pathway and describe how the associated careers have evolved and impacted society.
02.05	Identify skills required to successfully enter any career in the Restaurant and Food/Beverage Services career pathway.
02.06	Describe technologies associated in careers within the Restaurant and Food/Beverage Services career pathway.
03.0	Demonstrate an understanding of the Lodging career pathway. The student will be able to:



## CTE Standards and Benchmarks

03.01 Define and use proper terminology associated with the Lodging career pathway.

03.02 Describe some of the careers available in the Lodging career pathway.

03.03 Identify common characteristics of the careers in the Lodging career pathway.

03.04 Research the history of the Lodging career pathway and describe how the careers have evolved and impacted society.

03.05 Identify skills required to successfully enter any career in the Lodging career pathway.

03.06 Describe technologies associated in careers within the Lodging career pathway.

04.0 Demonstrate an understanding of the Travel and Tourism career pathway. The student will be able to:

04.01 Define and use proper terminology associated with the Travel and Tourism career pathway.

04.02 Describe some of the careers available in the Travel and Tourism career pathway.

04.03 Identify common characteristics of the careers in the Travel and Tourism career pathway.

04.04 Research the history of the Travel and Tourism career pathway and describe how the careers have evolved and impacted society.

04.05 Identify skills required to successfully enter any career in the Travel and Tourism career pathway.

04.06 Describe technologies associated in careers within the Travel and Tourism career pathway.

04.07 Define the different types of tourism within the industry.

05.0 Demonstrate an understanding of the Recreation, Amusements and Attractions career pathway. The student will be able to:

05.01 Define and use proper terminology associated with the Recreation, Amusements and Attractions career pathway.

05.02 Describe some of the careers available in the Recreation, Amusements and Attractions career pathway.

05.03 Identify common characteristics of the careers in the Recreation, Amusements and Attractions career pathway.

05.04 Research the history of the Recreation, Amusements and Attractions career pathway and describe how the careers have evolved and impacted society.

05.05 Identify skills required to successfully enter any career in the Recreation, Amusements and Attractions career pathway.

05.06 Describe technologies associated in careers within the Recreation, Amusements and Attractions career pathway.

06.0 Demonstrate an understanding of the Cruise Line Industry career pathway. The student will be able to:

## CTE Standards and Benchmarks

06.01 Discuss the establishment and history of the Cruise Industry.

06.02 Describe some of the careers available in the Cruise Industry career pathway.

06.03 Identify skills required to successfully enter any career in the Cruise Industry career pathway.

06.04 Describe technologies associated in careers within the Cruise Industry career pathway.

06.05 Identify terminology used in the Cruise Industry

07.0 Demonstrate an understanding of other country's culture as related to the Travel/Tourism Industry. The student will be able to:

07.01 Identify major characteristics of a country's culture.

07.02 Demonstrate knowledge of the Food/Beverage service industry in other countries.

07.03 Demonstrate knowledge of the Lodging service industry in other countries.

07.04 Demonstrate knowledge of the Recreation, Amusements and Attractions industry in other countries.

07.05 Demonstrate knowledge of the Travel/Tourism industry in other countries.

08.0 Apply leadership and communication skills. The student will be able to:

08.01 Discuss the establishment and history of the FCCLA organization.

08.02 Identify the characteristics and responsibilities of organizational leaders.

08.03 Demonstrate parliamentary procedure skills during a meeting.

08.04 Participate on a committee which has an assigned task and report to the class.

08.05 Demonstrate effective communication skills through delivery of a speech, a slide presentation, or conducting a demonstration.

08.06 Use a computer to assist in the completion of a project related to the Hospitality and Tourism career cluster.

09.0 Describe how information technology is used in the Hospitality and Tourism career cluster. The student will be able to:

09.01 Identify information technology (IT) careers in the Hospitality and Tourism career cluster, including the responsibilities, tasks and skills they require.

09.02 Relate information technology project management concepts and terms to careers in the Hospitality and Tourism career cluster.

09.03 Manage information technology components typically used in professions of the Hospitality and Tourism career cluster.

## CTE Standards and Benchmarks

09.04 Identify security-related ethical and legal IT issues faced by professionals in the Hospitality and Tourism career cluster.

10.0 Use information technology tools. The student will be able to:

10.01 Identify the functions of web browsers, and use them to access the World Wide Web and other computer resources typically used in the Hospitality and Tourism career cluster.

10.02 Use e-mail clients to send simple messages and files to other Internet users.

10.03 Demonstrate ways to communicate effectively using Internet technology.

10.04 Use different types of web search engines effectively to locate information relevant to the Hospitality and Tourism career cluster.

### **Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes.**

The student will be able to:

11.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.

12.0 Develop skills to locate, evaluate, and interpret career information.

13.0 Identify and demonstrate processes for making short and long term goals.

14.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.

15.0 Understand the relationship between educational achievement and career choices/postsecondary options.

16.0 Identify a career cluster and related pathways through an interest assessment that match career and education goals.

17.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.

18.0 Demonstrate knowledge of technology and its application in career fields/clusters.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

## **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

## **Career Planning**

**Effective July 1, 2019, per Section 1003.4156, Florida Statutes (F.S.), for students to meet middle grades promotion requirements, a Career and Education Planning course must be completed in either sixth, seventh, or eighth grade.** These courses should be taught integrating the eight career and education planning course standards. The MyCareerShines powered by Kuder® career planning system is available free of charge to all Florida middle and high schools to assist students in completing research-based career assessments, exploring career options and developing an online academic and career plan.

## **Career and Technical Student Organization (CTSO)**

Family, Career & Community Leaders of America, Inc. (FCCLA) is the inter-curricular career and technical student organization providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

## **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

**Florida Department of Education  
Curriculum Framework**

**Course Title:** Introduction to Government and Public Administration  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Government and Public Administration

Secondary – Middle School	
Program Number	8900210
CIP Number	07439999EX
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b>Course Structure</b> section.
CTSO	FPSSA and Skills USA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Government and Public Administration career cluster. The content includes but is not limited to education and information services; natural resource management; public administration; social and economic services; urban, rural and community development; transportation industry; public safety, corrections and judicial services; national defense occupations. Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8900210	Introduction to Government and Public Administration	TEC CONSTR @7 7G ANY PUBLIC SERV OCC ED G	Semester

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate an understanding of the Governance career pathway.
- 02.0 Demonstrate an understanding of the National Security career pathway.
- 03.0 Demonstrate an understanding of the Foreign Service career pathway.
- 04.0 Demonstrate an understanding of the Planning career pathway.
- 05.0 Demonstrate an understanding of the Revenue and Taxation career pathway.
- 06.0 Demonstrate an understanding of the Regulation career pathway.
- 07.0 Demonstrate an understanding of the Public Management and Administration career pathway.
- 08.0 Apply leadership and communication skills.
- 09.0 Identify components of network systems.
- 10.0 Use information technology tools.
- 11.0 Identify components of network systems.
- 12.0 Describe and use communication features of information technology.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Exploration of Public Service Occupations  
(Introduction of Government and Public Administration)  
**Course Number:** 8900210  
**Course Credit:** Semester

**Course Description:**

Beginning with a broad overview of the Government and Public Administration career cluster, students are introduced to the terminology, careers, history, required skills, and technologies associated with each pathway in the Government and Public Administration career cluster. Additionally, they will be provided with opportunities to acquire and demonstrate beginning leadership skills.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate an understanding of the Governance career pathway. The student will be able to:
01.01	Define and use proper terminology associated with the Governance career pathway.
01.02	Describe some of the careers available in the Governance career pathway.
01.03	Identify common characteristics of the careers in the Governance career pathway.
01.04	Research the history of the Governance career pathway and describe how the associated careers have evolved and impacted society.
01.05	Identify skills required to successfully enter any career in the Governance career pathway.
01.06	Describe technologies associated in careers within the Governance career pathway.
02.0	Demonstrate an understanding of the National Security career pathway. The student will be able to:
02.01	Define and use proper terminology associated with the National Security career pathway.
02.02	Describe some of the careers available in the National Security career pathway.
02.03	Identify common characteristics of the careers in the National Security career pathway.
02.04	Research the history of the National Security career pathway and describe how the careers have evolved and impacted society.
02.05	Identify skills required to successfully enter any career in the National Security career pathway.
02.06	Describe technologies associated in careers within the National Security career pathway.



## CTE Standards and Benchmarks

03.0 Demonstrate an understanding of the Foreign Service career pathway. The student will be able to:

03.01 Define and use proper terminology associated with the Foreign Service career pathway.

03.02 Describe some of the careers available in the Foreign Service career pathway.

03.03 Identify common characteristics of the careers in the Foreign Service career pathway.

03.04 Research the history of the Foreign Service career pathway and describe how the careers have evolved and impacted society.

03.05 Identify skills required to successfully enter any career in the Foreign Service career pathway.

03.06 Describe technologies associated in careers within the Foreign Service career pathway.

04.0 Demonstrate an understanding of the Planning career pathway. The student will be able to:

04.01 Define and use proper terminology associated with the Planning career pathway.

04.02 Describe some of the careers available in the Planning career pathway.

04.03 Identify common characteristics of the careers in the Planning career pathway.

04.04 Research the history of the Planning career pathway and describe how the careers have evolved and impacted society.

04.05 Identify skills required to successfully enter any career in the Planning career pathway.

04.06 Describe technologies associated in careers within the Planning career pathway.

05.0 Demonstrate an understanding of the Revenue and Taxation career pathway. The student will be able to:

05.01 Define and use proper terminology associated with the Revenue and Taxation career pathway.

05.02 Describe some of the careers available in the Revenue and Taxation career pathway.

05.03 Identify common characteristics of the careers in the Revenue and Taxation career pathway.

05.04 Research the history of the Revenue and Taxation career pathway and describe how the careers have evolved and impacted society.

05.05 Identify skills required to successfully enter any career in the Revenue and Taxation career pathway.

05.06 Describe technologies associated in careers within the Revenue and Taxation career pathway.

06.0 Demonstrate an understanding of the Regulation career pathway. The student will be able to:

06.01 Define and use proper terminology associated with the Regulation career pathway.

## CTE Standards and Benchmarks

06.02	Describe some of the careers available in the Regulation career pathway.
06.03	Identify common characteristics of the careers in the Regulation career pathway.
06.04	Research the history of the Regulation career pathway and describe how the careers have evolved and impacted society.
06.05	Identify skills required to successfully enter any career in the Regulation career pathway.
06.06	Describe technologies associated in careers within the Regulation career pathway.
07.0	Demonstrate an understanding of the Public Management and Administration career pathway. The student will be able to:
07.01	Define and use proper terminology associated with the Public Management and Administration career pathway.
07.02	Describe some of the careers available in the Public Management and Administration career pathway.
07.03	Identify common characteristics of the careers in the Public Management and Administration career pathway.
07.04	Research the history of the Public Management and Administration career pathway and describe how the careers have evolved and impacted society.
07.05	Identify skills required to successfully enter any career in the Public Management and Administration career pathway.
07.06	Describe technologies associated in careers within the Public Management and Administration career pathway.
08.0	Apply leadership and communication skills. The student will be able to:
08.01	Discuss the establishment and history of the Florida Public Service Association (FPSA) organization.
08.02	Identify the characteristics and responsibilities of organizational leaders.
08.03	Demonstrate parliamentary procedure skills during a meeting.
08.04	Participate on a committee which has an assigned task and report to the class.
08.05	Demonstrate effective communication skills through delivery of a speech, a slide presentation, or conducting a demonstration.
08.06	Use a computer to assist in the completion of a project related to the Government and Public Administration career cluster.
09.0	Describe how information technology is used in Introduction to Government and Public Administration career cluster. The student will be able to:
09.01	Identify information technology (IT) careers in the Introduction to Government and Public Administration career cluster, including the responsibilities, tasks and skills they require.
09.02	Relate information technology project management concepts and terms to careers in the Introduction to Government and Public Administration career cluster.

## CTE Standards and Benchmarks

09.03 Manage information technology components typically used in professions of the Introduction to Government and Public Administration career cluster.

09.04 Identify security-related ethical and legal IT issues faced by professionals in the Introduction to Government and Public Administration career cluster.

10.0 Use information technology tools. The student will be able to:

10.01 Identify the functions of web browsers, and use them to access the World Wide Web and other computer resources typically used in the Introduction to Government and Public Administration career cluster.

10.02 Use e-mail clients to send simple messages and files to other Internet users.

10.03 Demonstrate ways to communicate effectively using Internet technology.

10.04 Use different types of web search engines effectively to locate information relevant to the Introduction to Government and Public Administration career cluster.

11.0 Identify components of network systems. The student will be able to:

11.01 Identify structure to access internet, including hardware and software components.

11.02 Identify and configure user customization features in web browsers, including preferences, caching, and cookies.

11.03 Recognize essential database concepts.

11.04 Define and use additional networking and internet services.

12.0 Describe and use communication features of information technology. The student will be able to:

12.01 Define important internet communications protocols and their roles in delivering basic Internet services.

12.02 Identify basic principles of the Domain Name System (DNS).

12.03 Identify security issues related to Internet clients.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. To access an ELL supporting document which delineates performance definitions and descriptors. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student

### **Career and Technical Student Organization (CTSO)**

FPSA and SkillsUSA are the inter-curricular career and technical student organizations providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional

methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Course Title:** Exploration of Criminal Justice Occupations  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Law, Public Safety & Security

**Secondary – Middle School**

Program Number	8900220
CIP Number	0743019904
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b>Course Structure</b> section.
CTSO	SkillsUSA, FPSA Inc.

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Law, Public Safety & Security career cluster. The student will be provided with basic information about the kinds of jobs and workers involved, the various career paths, occupational hazards, educational requirements, financial rewards, interpersonal and communication skills, and employability skills required. Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Course Structure**

This program is a planned sequence of instruction consisting of one course.

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8900220	Exploration of Criminal Justice Occupations	LAW ENF @7 7 G CORR OFF 7 G ANY PUB SERV OCC ED G	Semester

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate an understanding of the Legal services career pathway.
- 02.0 Demonstrate an understanding of the Security and protective services career pathway.
- 03.0 Demonstrate an understanding of the Law enforcement services career pathway.
- 04.0 Demonstrate an understanding of the Correction services career pathway.
- 05.0 Apply leadership and communication skills.
- 06.0 Describe how information technology is used in the Law, Public Safety and Security career cluster.
- 07.0 Use information technology tools.
- 08.0 Identify components of Criminal Investigations.
- 09.0 Describe and use communication protocols for Law, Public Safety & Security career cluster.



**Florida Department of Education  
Student Performance Standards**

**Course Title:** Exploration of Criminal Justice Occupations  
**Course Number:** 8900220  
**Course Credit:** Semester

**Course Description:**

The program of study explores the law enforcement system, the court system, the correctional system, the correctional probation system, public safety telecommunications and private security officer careers.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate an understanding of the Legal services career pathway. – The student will be able to:
01.01	Define and use proper terminology associated with the Legal services career pathway.
01.02	Describe some of the careers available in the Legal services career pathway.
01.03	Identify common characteristics of the careers in the Legal services career pathway.
01.04	Research the history of the Legal services career pathway and describe how the associated careers have evolved and impacted society.
01.05	Identify skills required to successfully enter any career in the Legal services career pathway.
01.06	Describe technologies associated in careers within the Legal services career pathway.
02.0	Demonstrate an understanding of the Security and protective services career pathway. – The student will be able to:
02.01	Define and use proper terminology associated with the Security and protective services career pathway.
02.02	Describe some of the careers available in the Security and protective services career pathway.
02.03	Identify common characteristics of the careers in the Security and protective services career pathway.
02.04	Research the history of the Security and protective services career pathway and describe how the careers have evolved and impacted society.
02.05	Identify skills required to successfully enter any career in the Security and protective services career pathway.
02.06	Describe technologies associated in careers within the Security and protective services career pathway.
03.0	Demonstrate an understanding of the Law enforcement services career pathway. – The student will be able to:

## CTE Standards and Benchmarks

03.01 Define and use proper terminology associated with the Law enforcement services career pathway.

03.02 Describe some of the careers available in the Law enforcement services career pathway to include:

- a. Law Enforcement
- b. K-9
- c. Dispatch
- d. Traffic Enforcement
- e. Investigations
- f. Agriculture Officer
- g. Marine Patrol
- h. Aviation Officer

03.03 Research the history of the Law enforcement services career pathway and describe how the careers have evolved and impacted society from the 1970's to present day.

03.04 Identify skills required to successfully enter any career in the Law enforcement services career pathway to include:

- a. FBI Academy
- b. FLETC
- c. Florida Law Enforcement Academy

03.05 Describe technologies associated in careers within the Law enforcement services career pathway to include:

- a. Forensics
- b. Cyber Crime
- c. Crime Prevention

04.0 Demonstrate an understanding of the Correction services career pathway. – The student will be able to:

04.01 Define and use proper terminology associated with the Correction services career pathway for officer level.

04.02 Describe some of the careers available in the Correction services career pathway to include:

- a. Officer
- b. Probation
- c. Psychology
- d. Medical
- e. Social Services
- f. Food Services
- g. Gang Investigators

04.03 Identify common characteristics of the careers in the Correction services career pathway.

04.04 Research the history of the Correction services career pathway and describe how the careers have evolved and impacted society from 1970's to present.

04.05 Identify skills required to successfully enter any career in the Correction services career pathway to include:

- a. Prison Construction
- b. Digital Courts
- c. Audio/Visual Monitoring

## CTE Standards and Benchmarks

04.06 Describe technologies associated in careers within the Correction services career pathway.

05.0 Apply leadership and communication skills. – The student will be able to:

05.01 Discuss the establishment and history of the FPSA organization.

05.02 Identify the characteristics and responsibilities of organizational leaders.

05.03 Demonstrate parliamentary procedure skills during a meeting.

05.04 Participate on a committee which has an assigned task and report to the class.

05.05 Demonstrate effective communication skills through delivery of a speech, a powerpoint, or conducting a demonstration.

05.06 Use a computer to assist in the completion of a project related to the Law, Public Safety and Security career cluster.

06.0 Describe how information technology is used in the Law, Public Safety and Security career cluster. – The student will be able to:

06.01 Identify information technology (IT) careers in the Law, Public Safety and Security career cluster, including the responsibilities, tasks and skills they require to include:  
a. NCIC/FCIC  
b. CAD System in Dispatch  
c. Computer Forensics  
d. Encryption

06.02 Research information technology career for a presentation.

06.03 Identify security-related ethical and legal IT issues faced by professionals in the Law, Public Safety and Security career cluster to include:  
a. confidentiality  
b. personal information (personal computer use)

07.0 Use information technology tools. – The student will be able to:

07.01 Identify the functions of web browsers, and use them to access the World Wide Web and other computer resources typically used in Law, Public Safety and Security career cluster.

07.02 Use e-mail clients to send simple messages and files to other Internet users.

07.03 Demonstrate ways to communicate effectively using Internet technology.

07.04 Use different types of web search engines effectively to locate information relevant to the Law, Public Safety and Security career cluster.

08.0 Identify components of Criminal Investigations.—The student will be able to:

08.01 Describe some careers available in criminal investigations to include:  
a. crime scene technician

## CTE Standards and Benchmarks

b. crime lab technician

08.02 Identify evidence is at a crime scene.

08.03 Describe how to collect evidence at a crime scene.

08.04 Demonstrate the skills for lifting latent prints.

08.05 Participate in processing a mock crime scene.

09.0 Describe and use communication protocols for Law, Public Safety & Security career cluster.-- The student will be able to:

09.01 Define what a MDT (Mobile Data Terminal) and how it is used.

09.02 Describe the different types of dispatching organizations.

09.03 Identify the correct identification of the phonetic alphabet.

09.04 Identify and use proper radio procedures for communicating.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills.

For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

SkillsUSA and Florida Public Service Association, Inc. are the inter-curricular career and technical student organization providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Course Title:** Introduction to Government and Public Administration and Career Planning  
**Course Type:** Orientation/Exploratory and Career Planning  
**Career Cluster:** Government and Public Administration

**Secondary – Middle School**

Program Number	8900360
CIP Number	148900360M
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b>Course Structure</b> section.
CTSO	SkillsUSA, FPSA Inc.

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Government and Public Administration career cluster. The content includes but is not limited to education and information services; natural resource management; public administration; social and economic services; urban, rural and community development; transportation industry; public safety, corrections and judicial services; national defense occupations. Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
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Course Number	Course Title	Teacher Certification	Length
8900360	Introduction to Government and Public Administration and Career Planning	TEC CONSTR @7 7G ANY PUBLIC SERV OCC ED G	Semester



## Standards

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate an understanding of the Governance career pathway.
- 02.0 Demonstrate an understanding of the National Security career pathway.
- 03.0 Demonstrate an understanding of the Foreign Service career pathway.
- 04.0 Demonstrate an understanding of the Planning career pathway.
- 05.0 Demonstrate an understanding of the Revenue and Taxation career pathway.
- 06.0 Demonstrate an understanding of the Regulation career pathway.
- 07.0 Demonstrate an understanding of the Public Management and Administration career pathway.
- 08.0 Apply leadership and communication skills.
- 09.0 Identify components of network systems.
- 10.0 Use information technology tools.
- 11.0 Identify components of network systems.
- 12.0 Describe and use communication features of information technology.

Listed below are the eight career and education planning course standards.

- 13.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.
- 14.0 Develop skills to locate, evaluate, and interpret career information.
- 15.0 Identify and demonstrate processes for making short and long term goals.
- 16.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
- 17.0 Understand the relationship between educational achievement and career choices/postsecondary options.
- 18.0 Identify a career cluster and related pathways through an interest assessment that match career and education goals.
- 19.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
- 20.0 Demonstrate knowledge of technology and its application in career fields/clusters.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Introduction of Government and Public Administration and Career Planning  
**Course Number:** 8900360  
**Course Credit:** Semester

**Course Description:**

Beginning with a broad overview of the Government and Public Administration career cluster, students are introduced to the terminology, careers, history, required skills, and technologies associated with each pathway in the Government and Public Administration career cluster. Additionally, they will be provided with opportunities to acquire and demonstrate beginning leadership skills.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate an understanding of the Governance career pathway. The student will be able to:
01.01	Define and use proper terminology associated with the Governance career pathway.
01.02	Describe some of the careers available in the Governance career pathway.
01.03	Identify common characteristics of the careers in the Governance career pathway.
01.04	Research the history of the Governance career pathway and describe how the associated careers have evolved and impacted society.
01.05	Identify skills required to successfully enter any career in the Governance career pathway.
01.06	Describe technologies associated in careers within the Governance career pathway.
02.0	Demonstrate an understanding of the National Security career pathway. The student will be able to:
02.01	Define and use proper terminology associated with the National Security career pathway.
02.02	Describe some of the careers available in the National Security career pathway.
02.03	Identify common characteristics of the careers in the National Security career pathway.
02.04	Research the history of the National Security career pathway and describe how the careers have evolved and impacted society.
02.05	Identify skills required to successfully enter any career in the National Security career pathway.
02.06	Describe technologies associated in careers within the National Security career pathway.

## CTE Standards and Benchmarks

03.0 Demonstrate an understanding of the Foreign Service career pathway. The student will be able to:

03.01 Define and use proper terminology associated with the Foreign Service career pathway.

03.02 Describe some of the careers available in the Foreign Service career pathway.

03.03 Identify common characteristics of the careers in the Foreign Service career pathway.

03.04 Research the history of the Foreign Service career pathway and describe how the careers have evolved and impacted society.

03.05 Identify skills required to successfully enter any career in the Foreign Service career pathway.

03.06 Describe technologies associated in careers within the Foreign Service career pathway.

04.0 Demonstrate an understanding of the Planning career pathway. The student will be able to:

04.01 Define and use proper terminology associated with the Planning career pathway.

04.02 Describe some of the careers available in the Planning career pathway.

04.03 Identify common characteristics of the careers in the Planning career pathway.

04.04 Research the history of the Planning career pathway and describe how the careers have evolved and impacted society.

04.05 Identify skills required to successfully enter any career in the Planning career pathway.

04.06 Describe technologies associated in careers within the Planning career pathway.

05.0 Demonstrate an understanding of the Revenue and Taxation career pathway. The student will be able to:

05.01 Define and use proper terminology associated with the Revenue and Taxation career pathway.

05.02 Describe some of the careers available in the Revenue and Taxation career pathway.

05.03 Identify common characteristics of the careers in the Revenue and Taxation career pathway.

05.04 Research the history of the Revenue and Taxation career pathway and describe how the careers have evolved and impacted society.

05.05 Identify skills required to successfully enter any career in the Revenue and Taxation career pathway.

05.06 Describe technologies associated in careers within the Revenue and Taxation career pathway.

06.0 Demonstrate an understanding of the Regulation career pathway. The student will be able to:

06.01 Define and use proper terminology associated with the Regulation career pathway.

## CTE Standards and Benchmarks

06.02 Describe some of the careers available in the Regulation career pathway.

06.03 Identify common characteristics of the careers in the Regulation career pathway.

06.04 Research the history of the Regulation career pathway and describe how the careers have evolved and impacted society.

06.05 Identify skills required to successfully enter any career in the Regulation career pathway.

06.06 Describe technologies associated in careers within the Regulation career pathway.

07.0 Demonstrate an understanding of the Public Management and Administration career pathway. The student will be able to:

07.01 Define and use proper terminology associated with the Public Management and Administration career pathway.

07.02 Describe some of the careers available in the Public Management and Administration career pathway.

07.03 Identify common characteristics of the careers in the Public Management and Administration career pathway.

07.04 Research the history of the Public Management and Administration career pathway and describe how the careers have evolved and impacted society.

07.05 Identify skills required to successfully enter any career in the Public Management and Administration career pathway.

07.06 Describe technologies associated in careers within the Public Management and Administration career pathway.

08.0 Apply leadership and communication skills. The student will be able to:

08.01 Discuss the establishment and history of the Florida Public Service Association (FPSA) organization.

08.02 Identify the characteristics and responsibilities of organizational leaders.

08.03 Demonstrate parliamentary procedure skills during a meeting.

08.04 Participate on a committee which has an assigned task and report to the class.

08.05 Demonstrate effective communication skills through delivery of a speech, a slide presentation, or conducting a demonstration.

08.06 Use a computer to assist in the completion of a project related to the Government and Public Administration career cluster.

09.0 Describe how information technology is used in Introduction to Government and Public Administration career cluster. The student will be able to:

09.01 Identify information technology (IT) careers in the Introduction to Government and Public Administration career cluster, including the responsibilities, tasks and skills they require.

09.02 Relate information technology project management concepts and terms to careers in the Introduction to Government and Public Administration career cluster.

## CTE Standards and Benchmarks

09.03 Manage information technology components typically used in professions of the Introduction to Government and Public Administration career cluster.

09.04 Identify security-related ethical and legal IT issues faced by professionals in the Introduction to Government and Public Administration career cluster.

10.0 Use information technology tools. The student will be able to:

10.01 Identify the functions of web browsers, and use them to access the World Wide Web and other computer resources typically used in the Introduction to Government and Public Administration career cluster.

10.02 Use e-mail clients to send simple messages and files to other Internet users.

10.03 Demonstrate ways to communicate effectively using Internet technology.

10.04 Use different types of web search engines effectively to locate information relevant to the Introduction to Government and Public Administration career cluster.

11.0 Identify components of network systems. The student will be able to:

11.01 Identify structure to access internet, including hardware and software components.

11.02 Identify and configure user customization features in web browsers, including preferences, caching, and cookies.

11.03 Recognize essential database concepts.

11.04 Define and use additional networking and internet services.

12.0 Describe and use communication features of information technology. The student will be able to:

12.01 Define important internet communications protocols and their roles in delivering basic Internet services.

12.02 Identify basic principles of the Domain Name System (DNS).

12.03 Identify security issues related to Internet clients.

**Listed below are the eight career and education planning course standards:**

The student will be able to:

13.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.

14.0 Develop skills to locate, evaluate, and interpret career information.

15.0 Identify and demonstrate processes for making short and long term goals.

## CTE Standards and Benchmarks

16.0	Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
17.0	Understand the relationship between educational achievement and career choices/postsecondary options.
18.0	Identify a career cluster and related pathways through an interest assessment that match career and education goals.
19.0	Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
20.0	Demonstrate knowledge of technology and its application in career fields/clusters.

## Additional Information

### Laboratory Activities

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### Florida Standards for English Language Development (ELD)

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. To access an ELL supporting document which delineates performance definitions and descriptors. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### Special Notes

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### Career Planning

**Effective July 1, 2019, per Section 1003.4156, Florida Statutes (F.S.), for students to meet middle grades promotion requirements, a Career and Education Planning course must be completed in either sixth, seventh, or eighth grade.** These courses should be taught integrating the eight career and education planning course standards. The MyCareerShines powered by Kuder® career planning system is available free of charge to all Florida middle and high schools to assist students in completing research-based career assessments, exploring career options and developing an online academic and career plan.

### Career and Technical Student Organization (CTSO)

SkillsUSA and FPSA, Inc. are the inter-curricular career and technical student organization(s) providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### Accommodations

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.



**Florida Department of Education  
Curriculum Framework**

**Course Title:** Fundamentals of Government and Public Administration  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Government and Public Administration

**Secondary – Middle School**

Program Number	8900500
CIP Number	148900500M
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b>Course Structure</b> section.
CTSO	SkillsUSA, FPSA Inc.

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Government and Public Administration career cluster. The content includes but is not limited to education and information services; natural resource management; public administration; social and economic services; urban, rural and community development; transportation industry; public safety, corrections and judicial services; national defense occupations. Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8900500	Fundamentals of Government and Public Administration	TEC CONSTR @7 7G ANY PUBLIC SERV OCC ED G	Semester

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Apply concepts of geography used in government and public administration.
- 02.0 Describe the functions of government and public administration.
- 03.0 Describe communication formats used to facilitate the exchange of ideas in government and public administration.
- 04.0 Discuss the governmental policy making process.
- 05.0 Discuss the importance of health, safety and environmental management systems in government and public administration.
- 06.0 Develop and present persuasive arguments on political and/or social topics.
- 07.0 Manage leadership and communication skills.
- 08.0 Demonstrate good work habits, and career planning.
- 09.0 Integrate the use of science, mathematics, reading, geography, history, writing, and communication.
- 10.0 Identify components of network systems.
- 11.0 Describe and use communication features of information technology.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Fundamentals of Government and Public Administration  
**Course Number:** 8900500  
**Course Credit:** Semester

**Course Description:**

This course is designed to provide instruction that explores the tasks, training, education and physical requirements of occupations in the Government and Public Administration career cluster. The content is constructed to develop competencies in the areas of graphic tools and techniques; functions and forms of government and public administration and the mechanics of developing and implementing policy and law.

<b>CTE Standards and Benchmarks</b>	
01.0	Apply concepts of geography used in government and public administration. The student will be able to:
01.01	Identify graphic tools and technologies used in government and public administration occupations.
01.02	Locate places and regions using maps and globes.
01.03	Create maps and graphs to display geographic information.
02.0	Describe the functions of government and public administration. The student will be able to:
02.01	Discuss the various forms of governance.
02.02	Define the concepts of authority, rights, and responsibility in government and public administration.
03.0	Describe communication formats used to facilitate the exchange of ideas in government and public administration. The student will be able to:
03.01	Identify public issues at the local, state and national levels.
03.02	Debate a public issue of importance to your community
03.03	Debate a public issue impacting the state and/or nation.
03.04	Make a presentation explaining the impact of a national public issue on your local community.
03.05	Conduct an interview on a state public issue
04.0	Discuss the governmental policy making process. The student will be able to:

## CTE Standards and Benchmarks

04.01 Explain the difference between the legislative branch and executive branch of government.

04.02 Explain the role of the legislature.

04.03 Explain the role of congress.

04.04 Discuss how bills become laws.

04.05 Identify organizations that engage in the political process.

04.06 Develop a public policy and explain the benefits to the community

05.0 Discuss the importance of health, safety and environmental management systems in government and public administration. The student will be able to:

05.01 Identify possible risk of injury/illness in the workplace.

05.02 Identify safety signs and symbols.

05.03 Create and present a solution to address risk of injury/illness in the workplace.

05.04 Identify hazards in the workplace.

05.05 Identify the government agencies responsible for providing a safe workplace.

05.06 Create a presentation for employees on preparedness for a safe environment.

06.0 Develop and present persuasive arguments on political and/or social topics. The student will be able to:

06.01 Identify differing political or social perspectives on a public policy impacting the local community.

06.02 Research and present a perspective on a policy

06.03 Debate a public policy.

07.0 Manage leadership and communication skills. The student will be able to:

07.01 Compare the characteristics and responsibilities of organizational leaders.

07.02 Demonstrate parliamentary procedure skills during a meeting.

07.03 Participate on a committee which has an assigned task and report to the class.

07.04 Demonstrate effective communication skills through delivery of a speech or conducting a demonstration.

07.05 Use a computer to assist in the completion of a project.

## CTE Standards and Benchmarks

08.0 Demonstrate good work habits, and career planning. The student will be able to:

08.01 Identify attitudes and habits necessary to achieve career success.

08.02 Describe personality aspects to consider when choosing a career.

08.03 Identify the basic steps in career planning.

08.04 Identify and research careers within a specific area of government or public administration.

09.0 Integrate the use of science, mathematics, reading, geography, history, writing, and communication. The student will be able to:

09.01 Apply basic mathematics operations to solve problems.

09.02 Correctly use measuring devices and utilize measurements.

09.03 Prepare written and/or oral materials using correct English grammar.

09.04 Identify the main idea in oral presentations and/or written materials.

09.05 Locate, organize, and interpret information from a variety of sources.

09.06 Describe the historical evolution of government and public administration.

10.0 Identify components of network systems. The student will be able to:

10.01 Identify structure to access internet, including hardware and software components.

10.02 Identify and configure user customization features in web browsers, including preferences, caching, and cookies.

10.03 Recognize essential database concepts.

10.04 Define and use additional networking and internet services.

11.0 Describe and use communication features of information technology. The student will be able to:

11.01 Define important internet communications protocols and their roles in delivering basic Internet services.

11.02 Identify basic principles of the Domain Name System (DNS).

11.03 Identify security issues related to Internet clients.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

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English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

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SkillsUSA, FPSA Inc. are the inter-curricular career and technical student organizations providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Course Title:** Fundamentals of Human Service Careers  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Human Services

**Secondary – Middle School**

Program Number	8960300
CIP Number	148960300M
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	FCCLA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Human Services career cluster. The content includes but is not limited to making career choices, basic employability skills that relate to content extracted from any family and consumer sciences exploratory course including the development of leadership and organization skills within the program.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.



The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8960300	Fundamentals of Human Service Careers	FAM CON SC 1	Semester

**Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Discuss early childhood development and services.
- 02.0 Describe counseling and mental health services.
- 03.0 Discuss family and community services.
- 04.0 Describe personal care services.
- 05.0 Identify Consumer Services organizations.
- 06.0 Demonstrate leadership and communication.
- 07.0 Integrate the use of science, mathematics, reading, writing, and communications.
- 08.0 Recognize the value of responsibility, good work habits, and planning for career opportunities in agriculture services.
- 09.0 Identify components of network systems.
- 10.0 Describe and use communication features of information technology.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Fundamentals of Human Service Careers  
**Course Number:** 8960300  
**Course Credit:** Semester

**Course Description:**

This course is designed to develop competencies in the area of human services. The content includes communications, safety, child development services, counseling and mental health services, family and community services, personal care services, consumer services and leadership skills. Laboratory-based activities are an integral part of this course. These include safe use and application of appropriate technology.

**CTE Standards and Benchmarks**

01.0 Discuss early childhood development and services. – The student will be able to:

01.01 Describe a safe and sanitary learning environment for child.

01.02 Describe the indicators of a healthy child.

01.03 Identify common indicators of child abuse and neglect.

01.04 Describe common physical, emotional, intellectual and social milestones for children.

01.05 Discuss strategies that promote growth and development.

01.06 Create a developmentally appropriate activity to reflect interests and developmental levels.

01.07 Arrange learning centers that provide for a child's exploration, discovery and development.

01.08 Observe and document children's progress.

01.09 Evaluate games, equipment, activities, books, and play materials for age appropriateness.

02.0 Describe counseling and mental health services. – The student will be able to:

02.01 Research counseling and mental health services available at the state and local level.

02.02 Describe common cause for seeking counseling and mental health services.

02.03 Describe a physically healthy environment to enhance effectiveness of treatment.

## CTE Standards and Benchmarks

02.04 Plan furniture and décor for a counseling or mental health facility.

02.05 Discuss the ethical and legal responsibilities of the counseling services to the client.

03.0 Discuss family and community services. – The student will be able to:

03.01 Research family and community services available through agencies, organizations, and churches at the local and state level.

03.02 Create documents to advertise family and community services.

03.03 Discuss the ethical and legal responsibilities of the family and community services to the client.

04.0 Describe personal care services. – The student will be able to:

04.01 Describe and apply principles of biology necessary to select safe and effective personal care products and services.

04.02 Explain principles of chemistry in the composition, structure and properties of processes of a broad-range of personal care products and services.

04.03 Apply basic principles of human anatomy necessary in order to determine needed personal care.

04.04 Create advertisement documents to attract and retain human services clientele.

04.05 Discuss the ethical and legal responsibilities of the personal services provider to the client.

05.0 Identify consumer services. – The student will be able to:

05.01 Examine consumer services laws and ethics required for obtaining licensures.

05.02 Discuss client/consumer service skills including ability to empathize and to motivate clients.

05.03 Research and recommend products, plans or services.

05.04 Create advertisement documents for specific audiences.

05.05 Describe ethical and legal responsibilities associated with providing consumer services to clients and consumers.

06.0 Demonstrate leadership and communication styles. – The student will be able to:

06.01 Explore the establishment and history of the FCCLA organization.

06.02 Analyze the characteristics and responsibilities of organizational leaders.

06.03 Demonstrate parliamentary procedure skills during a meeting.

## CTE Standards and Benchmarks

06.04 Evaluate a committee which has an assigned task and report to the class.

06.05 Demonstrate effective communication skills through delivery of a speech or conducting a demonstration.

06.06 Use a computer to assist in the completion of a project.

07.0 Integrate the use of science, mathematics, reading, writing, and communications. – The student will be able to:

07.01 Apply basic mathematics operations to solve problems.

07.02 Prepare written and/or oral materials using correct English grammar.

07.03 Identify the main idea in oral presentations and/or written materials.

07.04 Locates, organizes, and interprets information from a variety of sources.

08.0 Recognize the value of responsibility, good work habits, and planning for career opportunities in agriculture services. – The student will be able to:

08.01 Identify attitudes and habits necessary to achieve career success.

08.02 Describe personality aspects to consider when choosing a career.

08.03 Identify the basic steps in career planning.

08.04 Develop basic career plan.

08.05 Identify and research careers within a specific area of human services

09.0 Identify components of network systems. – The student will be able to:

09.01 Identify attitudes and habits necessary to achieve career success.

09.02 Identify structure to access internet, including hardware and software components.

09.03 Identify and configure user customization features in web browsers, including preferences, caching, and cookies.

09.04 Recognize essential database concepts.

09.05 Define and use additional networking and internet services.

10.0 Describe and use communication features of information technology. – The student will be able to:

10.01 Define important internet communications protocols and their roles in delivering basic internet services.

## CTE Standards and Benchmarks

10.02 Identify basic principles of the Domain Name System (DNS).

10.03 Identify security issues related to Internet clients.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

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### **Special Notes**

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### **Career and Technical Student Organization (CTSO)**

Family, Career and Community Leaders of America (FCCLA) is the intercurricular career and technical student organization(s) providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

**Florida Department of Education  
Curriculum Framework**

**Course Title:** Introduction to Human Service Careers  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Human Services

**Secondary – Middle School**

Program Number	8960350
CIP Number	148960350M
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	FCCLA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Human Services career cluster. The content includes but is not limited to making career choices, basic employability skills that relate to content extracted from any family and consumer sciences exploratory course including the development of leadership and organization skills within the program.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.



The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8960350	Introduction to Human Services Careers	FAM CON SC 1	Semester

### **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate an understanding of the Early Childhood Development and Services career pathway.
- 02.0 Demonstrate an understanding of the Counseling and Mental Health Services career pathway.
- 03.0 Demonstrate an understanding of the Family and Community Services career pathway.
- 04.0 Demonstrate an understanding of the Personal Care Services career pathway.
- 05.0 Demonstrate an understanding of the Consumer Services career pathway.
- 06.0 Apply leadership and communication skills.
- 07.0 Describe how information technology is used in the Human Services career cluster.
- 08.0 Use information technology tools.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Introduction to Human Service Careers  
**Course Number:** 8960350  
**Course Credit:** Semester

**Course Description:**

Beginning with a broad overview of the Human Services career cluster, students are introduced to the terminology, careers, history, required skills, and technologies associated with each pathway in the Human Services career cluster. Additionally, they will be provided with opportunities to acquire and demonstrate beginning leadership skills.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate an understanding of the Early Childhood Development and Services career pathway. – The student will be able to:
01.01	Define and use proper terminology associated with the Early Childhood Development and Services career pathway.
01.02	Describe some of the careers available in the Early Childhood Development and Services career pathway.
01.03	Identify common characteristics of the careers in the Early Childhood Development and Services career pathway.
01.04	Research the history of the Early Childhood Development and Services career pathway and describe how the associated careers have evolved and impacted society.
01.05	Identify skills required to successfully enter any career in the Early Childhood Development and Services career pathway.
01.06	Describe technologies associated in careers within the Early Childhood Development and Services career pathway.
02.0	Demonstrate an understanding of the Counseling and Mental Health Services career pathway. – The student will be able to:
02.01	Define and use proper terminology associated with the Counseling and Mental Health Services career pathway.
02.02	Describe some of the careers available in the Counseling and Mental Health Services career pathway.
02.03	Identify common characteristics of the careers in the Counseling and Mental Health Services career pathway.
02.04	Research the history of the Counseling and Mental Health Services career pathway and describe how the careers have evolved and impacted society.
02.05	Identify skills required to successfully enter any career in the Counseling and Mental Health Services career pathway.

## CTE Standards and Benchmarks

02.06 Describe technologies associated in careers within the Counseling and Mental Health Services career pathway.

03.0 Demonstrate an understanding of the Family and Community Services career pathway. – The student will be able to:

03.01 Define and use proper terminology associated with the Family and Community Services career pathway.

03.02 Describe some of the careers available in the Family and Community Services career pathway.

03.03 Identify common characteristics of the careers in the Family and Community Services career pathway.

03.04 Research the history of the Family and Community Services career pathway and describe how the careers have evolved and impacted society.

03.05 Identify skills required to successfully enter any career in the Family and Community Services career pathway.

03.06 Describe technologies associated in careers within the Family and Community Services career pathway.

04.0 Demonstrate an understanding of the Personal Care Services career pathway. – The student will be able to:

04.01 Define and use proper terminology associated with the Personal Care Services career pathway.

04.02 Describe some of the careers available in the Personal Care Services career pathway.

04.03 Identify common characteristics of the careers in the Personal Care Services career pathway.

04.04 Research the history of Personal Care Services career have evolved and impacted society.

04.05 Identify skills required to successfully enter any career in the Personal Care Services career pathway.

04.06 Describe technologies associated in careers within the Personal Care Services career pathway.

05.0 Demonstrate an understanding of the Consumer Services career pathway. – The student will be able to:

05.01 Define and use proper terminology associated with the Consumer Services career pathway.

05.02 Describe some of the careers available in the Consumer Services career pathway.

05.03 Identify common characteristics of the careers in the Consumer Services career pathway.

05.04 Research the history of Consumer Services career have evolved and impacted society.

05.05 Identify skills required to successfully enter any career in the Consumer Services career pathway.

05.06 Describe technologies associated in careers within the Consumer Services career pathway.

## CTE Standards and Benchmarks

06.0 Apply leadership and communication skills. – The student will be able to:

06.01 Discuss the establishment and history of the FCCLA organization.

06.02 Identify the characteristics and responsibilities of organizational leaders.

06.03 Demonstrate parliamentary procedure skills during a meeting.

06.04 Participate on a committee which has an assigned task and report to the class.

06.05 Demonstrate effective communication skills through delivery of a speech, a slide presentation, or conducting a demonstration.

06.06 Use a computer to assist in the completion of a project related to the Human Services career cluster.

07.0 Describe how information technology is used in the Human Services career cluster. – The student will be able to:

07.01 Identify information technology (IT) careers in the Human Services career cluster, including the responsibilities, tasks, and skills they require.

07.02 Relate information technology project management concepts and terms to careers in the Human Services career cluster.

07.03 Manage information technology components typically used in professions of the Human Services career cluster.

07.04 Identify security-related ethical and legal IT issues faced by professionals in the Human Services career cluster.

08.0 Use information technology tools. – The student will be able to:

08.01 Identify the functions of web browsers, and use them to access the World Wide Web and other computer resources typically used in the Human Services career cluster.

08.02 Use e-mail clients to send simple messages and files to other internet users.

08.03 Demonstrate ways to communicate effectively using internet technology.

08.04 Use different types of web search engines effectively to locate information relevant to the Human Services career cluster.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

Family, Career and Community Leaders of America (FCCLA) is the intercurricular career and technical student organization(s) providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Course Title:** Introduction to Human Service Careers and Career Planning  
**Course Type:** Orientation/Exploratory and Career Planning  
**Career Cluster:** Human Services

**Secondary – Middle School**

Program Number	8960360
CIP Number	148960360M
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	FCCLA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Human Services career cluster. The Human Services Career Cluster prepares you for jobs that relate to families and human needs. Whether you want to be a social worker, a childcare provider or a hairdresser, you will be addressing human needs. Reinforcement of academic skills occurs through classroom instruction and applied laboratory procedures.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8960360	Introduction to Human Service Careers and Career Planning	FAM CON SC 1	Semester

### **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate an understanding of the Early Childhood Development and Services career pathway.
- 02.0 Demonstrate an understanding of the Counseling and Mental Health Services career pathway.
- 03.0 Demonstrate an understanding of the Family and Community Services career pathway.
- 04.0 Demonstrate an understanding of the Personal Care Services career pathway.
- 05.0 Demonstrate an understanding of the Consumer Services career pathway.
- 06.0 Apply leadership and communication skills.
- 07.0 Describe how information technology is used in the Human Services career cluster.
- 08.0 Use information technology tools.

### **Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes.**

- 09.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.
- 10.0 Develop skills to locate, evaluate, and interpret career information.
- 11.0 Identify and demonstrate processes for making short and long term goals.
- 12.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
- 13.0 Understand the relationship between educational achievement and career choices/postsecondary options.
- 14.0 Identify a career cluster and related pathways that match career and education goals.
- 15.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
- 16.0 Demonstrate knowledge of technology and its application in career fields/clusters.



Florida Department of Education  
Student Performance Standards

**Course Title:** Introduction to Human Service Careers and Career Planning  
**Course Number:** 8960360  
**Course Credit:** Semester

**Course Description:**

Beginning with a broad overview of the Human Services career cluster, students are introduced to the terminology, careers, history, required skills, and technologies associated with each pathway in the Human Services career cluster. Additionally, they will be provided with opportunities to acquire and demonstrate beginning leadership skills.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate an understanding of the Early Childhood Development and Services career pathway. – The student will be able to:
01.01	Define and use proper terminology associated with the Early Childhood Development and Services career pathway.
01.02	Describe some of the careers available in the Early Childhood Development and Services career pathway.
01.03	Identify common characteristics of the careers in the Early Childhood Development and Services career pathway.
01.04	Research the history of the Early Childhood Development and Services career pathway and describe how the associated careers have evolved and impacted society.
01.05	Identify skills required to successfully enter any career in the Early Childhood Development and Services career pathway.
01.06	Describe technologies associated in careers within the Early Childhood Development and Services career pathway.
02.0	Demonstrate an understanding of the Counseling and Mental Health Services career pathway. – The student will be able to:
02.01	Define and use proper terminology associated with the Counseling and Mental Health Services career pathway.
02.02	Describe some of the careers available in the Counseling and Mental Health Services career pathway.
02.03	Identify common characteristics of the careers in the Counseling and Mental Health Services career pathway.
02.04	Research the history of the Counseling and Mental Health Services career pathway and describe how the careers have evolved and impacted society.
02.05	Identify skills required to successfully enter any career in the Counseling and Mental Health Services career pathway.
02.06	Describe technologies associated in careers within the Counseling and Mental Health Services career pathway.

## CTE Standards and Benchmarks

03.0 Demonstrate an understanding of the Family and Community Services career pathway. – The student will be able to:

03.01 Define and use proper terminology associated with the Family and Community Services career pathway.

03.02 Describe some of the careers available in the Family and Community Services career pathway.

03.03 Identify common characteristics of the careers in the Family and Community Services career pathway.

03.04 Research the history of the Family and Community Services career pathway and describe how the careers have evolved and impacted society.

03.05 Identify skills required to successfully enter any career in the Family and Community Services career pathway.

03.06 Describe technologies associated in careers within the Family and Community Services career pathway.

04.0 Demonstrate an understanding of the Personal Care Services career pathway. – The student will be able to:

04.01 Define and use proper terminology associated with the Personal Care Services career pathway.

04.02 Describe some of the careers available in the Personal Care Services career pathway.

04.03 Identify common characteristics of the careers in the Personal Care Services career pathway.

04.04 Research the history of Personal Care Services career have evolved and impacted society.

04.05 Identify skills required to successfully enter any career in the Personal Care Services career pathway.

04.06 Describe technologies associated in careers within the Personal Care Services career pathway.

05.0 Demonstrate an understanding of the Consumer Services career pathway. – The student will be able to:

05.01 Define and use proper terminology associated with the Consumer Services career pathway.

05.02 Describe some of the careers available in the Consumer Services career pathway.

05.03 Identify common characteristics of the careers in the Consumer Services career pathway.

05.04 Research the history of Consumer Services career have evolved and impacted society.

05.05 Identify skills required to successfully enter any career in the Consumer Services career pathway.

05.06 Describe technologies associated in careers within the Consumer Services career pathway.

06.0 Apply leadership and communication skills. – The student will be able to:

06.01 Discuss the establishment and history of the FCCLA organization.

## CTE Standards and Benchmarks

06.02 Identify the characteristics and responsibilities of organizational leaders.

06.03 Demonstrate parliamentary procedure skills during a meeting.

06.04 Participate on a committee which has an assigned task and report to the class.

06.05 Demonstrate effective communication skills through delivery of a speech, a slide presentation, or conducting a demonstration.

06.06 Use a computer to assist in the completion of a project related to the Human Services career cluster.

07.0 Describe how information technology is used in the Human Services career cluster. – The student will be able to:

07.01 Identify information technology (IT) careers in the Human Services career cluster, including the responsibilities, tasks, and skills they require.

07.02 Relate information technology project management concepts and terms to careers in the Human Services career cluster.

07.03 Manage information technology components typically used in professions of the Human Services career cluster.

07.04 Identify security-related ethical and legal IT issues faced by professionals in the Human Services career cluster.

08.0 Use information technology tools. – The student will be able to:

08.01 Identify the functions of web browsers, and use them to access the World Wide Web and other computer resources typically used in the Human Services career cluster.

08.02 Use e-mail clients to send simple messages and files to other internet users.

08.03 Demonstrate ways to communicate effectively using internet technology.

08.04 Use different types of web search engines effectively to locate information relevant to the Human Services career cluster.

### **Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes.**

The student will be able to:

09.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.

10.0 Develop skills to locate, evaluate, and interpret career information.

11.0 Identify and demonstrate processes for making short and long term goals.

12.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.

13.0 Understand the relationship between educational achievement and career choices/postsecondary options.

## CTE Standards and Benchmarks

14.0	Identify a career cluster and related pathways that match career and education goals.
15.0	Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
16.0	Demonstrate knowledge of technology and its application in career fields/clusters.

## Additional Information

### Laboratory Activities

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### Florida Standards for English Language Development (ELD)

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### Special Notes

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### Career Planning

**Effective July 1, 2019, per Section 1003.4156, Florida Statutes (F.S.), for students to meet middle grades promotion requirements, a Career and Education Planning course must be completed in either sixth, seventh, or eighth grade.** These courses should be taught integrating the eight career and education planning course standards. The MyCareerShines powered by Kuder® career planning system is available free of charge to all Florida middle and high schools to assist students in completing research-based career assessments, exploring career options and developing an online academic and career plan.

### Career and Technical Student Organization (CTSO)

FCCLA is the inter-curricular career and technical student organization(s) providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### Accommodations

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Course Title:** Exploring Family and Consumer Sciences (FACS)  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Human Services

**Secondary – Middle School**

Course Number	8960370
CIP Number	14896037MS
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	FCCLA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the various career clusters. The content includes but is not limited to food preparation and nutrition, fashion and interior design concepts, personal finance, healthy relationships and child care practices. Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
8960370	Exploring Family and Consumer Sciences (FACS)	FAM CON SC 1 FASH TECH 7 G INT DES 7 G CULINARY 7 G PRESCH ED L	Semester

### **Standards**

After successfully completing this course, the student will be able to perform the following:

- 01.0 Demonstrate leadership skills.
- 02.0 Identify and apply skills needed for positive interpersonal relationships.
- 03.0 Demonstrate an understanding of food preparation skills and nutrition.
- 04.0 Demonstrate knowledge, skills and practices of early childhood care.
- 05.0 Apply the decision making process to personal finance choices.
- 06.0 Demonstrate an understanding of fashion and sewing concepts.
- 07.0 Demonstrate an understanding of housing and interior design.



**Florida Department of Education  
Student Performance Standards**

**Course Title:** Exploring Family and Consumer Sciences (FACS)  
**Course Number:** 8960370  
**Course Length:** Semester

**Course Description:**

This course is designed to introduce students to the various disciplines within the Family and Consumer Sciences field. By the end of this course, students will have a foundational understanding of food preparation and nutrition, fashion and interior design concepts, personal finance, healthy relationships and child care practices.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate leadership skills. – The student will be able to:
01.01	Identify roles and responsibilities of members of professional and community service organizations, including career and technical student organizations.
01.02	Work cooperatively as a group member to achieve organizational goals.
01.03	Demonstrate leadership roles and organizational responsibilities.
01.04	Identify and utilize the FCCLA planning process.
01.05	Discuss the establishment and history of the FCCLA organization.
02.0	Identify and apply skills needed for positive interpersonal relationships. – The student will be able to:
02.05	Distinguish between the types of communication, i.e., social media, texting, nonverbal, etc.
02.06	Identify the various types of relationships, such as family, friends, and peers.
02.07	Define self-esteem and state how a positive self-concept builds healthy relationships.
02.08	Identify common areas of conflict and possible resolutions for healthy relationships.
03.0	Demonstrate an understanding of food preparation skills and nutrition. – The student will be able to:
03.05	Identify current USDA dietary guidelines to plan daily food choices and maintain wellness.
03.06	Interpret and use recipes.

## CTE Standards and Benchmarks

03.07 Select, use, care for and store food preparation equipment.

03.08 Identify and apply food safety and sanitation practices.

03.09 Identify and demonstrate acceptable behaviors for table service and etiquette.

03.10 Specify nutritional needs of the young adult.

04.0 Demonstrate knowledge, skills and practices of early childhood care. – The students will be able to:

04.05 Identify stages of child development and age appropriate activities.

04.06 List the roles and responsibilities of parents and caregivers.

04.07 Identify community resources that benefit children, such as first aid and critical emergency skills.

04.08 Explore toys, books, games, and software of interest to children.

04.09 Demonstrate safe and proper use of toys and equipment, including safe play.

04.10 Compare different forms of guidance (i.e. redirection of behavior) used with children in different situations.

05.0 Apply the decision making process to personal finance choices. – The student will be able to:

05.05 Identify needs versus wants.

05.06 Research and use various consumer information sources to make purchases (i.e. online versus store front).

05.07 Set financial goals, including saving and investing.

05.08 Develop a plan for resource management (i.e., develop a plan for managing a budget)

05.09 Identify ways to keep personal information safe and utilize consumer safety guidelines.

06.0 Demonstrate an understanding of fashion and sewing concepts. – The student will be able to:

06.05 Determine values/needs/wants related to wardrobe and grooming.

06.06 Recognize factors that influence clothing purchases.

06.07 Identify sewing tools and techniques.

06.08 Use tools and materials to create a personalized individual and/or group project.

07.0 Demonstrate an understanding of housing and interior design. – The student will be able to:

## CTE Standards and Benchmarks

07.05 Identify lifestyle, common needs, common values and goals related to housing.

07.06 Identify elements and principles of design.

07.07 Demonstrate ways to create a comfortable living space.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

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English Language Development (ELD) Standards Special Notes:

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### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

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### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Program Title:** Vocational Employability Skills for Youth and Career Planning  
**Program Type:** Non Career Preparatory  
**Career Cluster:** Instructional Support Services

Secondary – Non Career Preparatory	
Program Number	9001820
CIP Number	11990007CE
Grade Level	6-12
Standard Length	.5/multiple credits
Teacher Certification	Refer to the Program Structure section.
CTSO	NA

**Purpose**

This program offers a course that provides coherent and rigorous content aligned with challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and careers; provides technical skill proficiency, and includes competency-based applied learning that contributes to the academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, general employability skills, technical skills, and occupation-specific skills.

The purpose of this program is to provide career and technical education competencies for youth being served by Department of Juvenile Justice programs. Basic practical and job preparatory instruction is provided in the competencies necessary for a better understanding of the world of work and for entry-level employment. The specific program content includes measurable components from any of the career and technical program areas with heavy emphasis on work ethics and employability skills.

The content includes but is not limited to employability and technical skills.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Program Structure**

This program is intended to provide short-term occupational education for individuals being served by Department of Juvenile Justice programs. The objective is to provide a foundation of survival skills for a transition into entry-level employment and/or additional on-the-job training.

The following table illustrates the secondary program structure:

Course Number	Course Title	Teacher Certification	Length	Level	Graduation Requirement
9001820	Vocational Employability Skills for Youth and Career Planning	ANY CTE FIELD OR COVERAGE ANY FIELD WHEN CERT REFLECTS BACHELOR OR HIGHER	.5 (Credit is not awarded at middle school level)	NA	

## **Common Career Technical Core – Career Ready Practices**

Career Ready Practices describe the career-ready skills that educators should seek to develop in their students. These practices are not exclusive to a Career Pathway, program of study, discipline or level of education. Career Ready Practices should be taught and reinforced in all career exploration and preparation programs with increasingly higher levels of complexity and expectation as a student advances through a program of study.

1. Act as a responsible and contributing citizen and employee.
2. Apply appropriate academic and technical skills.
3. Attend to personal health and financial well-being.
4. Communicate clearly, effectively and with reason.
5. Consider the environmental, social and economic impacts of decisions.
6. Demonstrate creativity and innovation.
7. Employ valid and reliable research strategies.
8. Utilize critical thinking to make sense of problems and persevere in solving them.
9. Model integrity, ethical leadership and effective management.
10. Plan education and career path aligned to personal goals.
11. Use technology to enhance productivity.
12. Work productively in teams while using cultural/global competence.



## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate realistic employment goals.
- 02.0 Describe human relations skills necessary for success in the workforce.
- 03.0 Identify types of communication skills necessary for successful employment.
- 04.0 Demonstrate leadership and teamwork skills needed to accomplish team goals and objectives.
- 05.0 Use oral and written communication skills in creating, expressing and interpreting information and ideas.
- 06.0 Describe the duties and responsibilities of a successful employee.
- 07.0 Demonstrate the competencies of employability and career development.
- 08.0 Use information technology tools.
- 09.0 Demonstrate the importance of health, safety, and environmental management systems in organizational performance and regulatory compliance.
- 10.0 Describe the roles within teams, work units, departments, organizations, inter-organizational systems and the larger environment.
- 11.0 Discuss the role of the entrepreneur.
- 12.0 Discuss entrepreneurship as a career choice.
- 13.0 Identify the basic economic principles of entrepreneurship.
- 14.0 Describe the importance of professional ethics and legal responsibilities.
- 15.0 Solve problems using critical thinking skills, creativity and innovation.
- 16.0 Demonstrate personal money-management concepts, procedures and strategies.
- 17.0 Use appropriate equipment and supplies safely and correctly.
- 18.0 Demonstrate competencies identified for a specific program component.

Listed below are the eight career and education planning course standards.

- 19.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.
- 20.0 Develop skills to locate, evaluate, and interpret career information.
- 21.0 Identify and demonstrate processes for making short and long term goals.
- 22.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
- 23.0 Understand the relationship between educational achievement and career choices/postsecondary options.
- 24.0 Identify a career cluster and related pathways through an interest assessment that match career and education goals.
- 25.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
- 26.0 Demonstrate knowledge of technology and its application in career fields/clusters.

## **OPTIONAL**

- 27.0 Demonstrate acquired skills through on-the-job training.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Vocational Employability Skills for Youth and Career Planning  
**Course Number:** 9001820  
**Course Credit:** .5

**Course Description:**

This course is designed to develop competencies in employability skills and to provide short-term occupational education for youth being served by Department of Juvenile Justice programs, usually for a duration of four (4) to twelve (12) months. The objective is to provide a foundation of survival skills for a transition into entry-level employment and/or additional on-the-job training.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate realistic employment goals. The student will be able to:
01.01	Express personal strengths and weaknesses, including social adjustments and cognitive abilities.
01.02	Match interests and abilities with potential careers.
02.0	Describe human relations skills necessary for success in the workforce. The student will be able to:
02.01	Define punctuality, initiative, courtesy, loyalty, honesty, respect, responsibility, fairness, and trustworthiness.
02.02	Identify and discuss the role of an employee as a team member in the workplace.
02.03	Describe the use of teams in the workplace to increase productivity and product quality.
02.04	Discuss the importance of human relations to success in the workplace.
02.05	Define empathy, compassion, caring, enthusiasm, positive attitude, and self-motivation.
02.06	Explain the importance of working effectively with diverse populations.
02.07	Explain importance of self-management when minimum direction and supervision are given.
02.08	Describe ethical situations in the world of work
02.09	Describe importance and benefits of time management.
02.10	Identify and demonstrate steps necessary for solving problems and making decisions.

## CTE Standards and Benchmarks

02.11 Analyze future consequences of current decisions.

02.12 Discuss the value of emotional self-control in the workplace

02.13 Explain “conflict resolution” and “dispute resolution” techniques and apply to a simulated work related problem.

02.14 Identify and practice stress management and relaxation techniques.

02.15 Discuss importance of practicing positive customer service skills.

03.0 Identify types of communication skills necessary for successful employment. The student will be able to:

03.01 Describe the importance of the proper use of grammar, vocabulary, and diction.

03.02 Identify the appropriate way to address people.

03.03 Identify appropriate conversation for work related settings.

03.04 Describe listening, speaking, and nonverbal skills necessary to determine customer needs.

03.05 List professional vocabulary appropriate for the work environment

03.06 Demonstrate ability to communicate in a multicultural setting

03.07 Identify and define commonly used customer service terms such as complaints, internal and external customers.

03.08 Demonstrate the ability to listen to, follow, and provide directions

03.09 Demonstrate the placing/receiving of telephone calls in a businesslike manner.

03.10 Demonstrate ability to locate, understand, and interpret information found in trade manuals, schedules, charts, diagrams, tables of contents, indexes, labels, and Internet resources.

04.0 Demonstrate leadership and teamwork skills needed to accomplish team goals and objective. The students will be able to:

04.01 Employ leadership skills to accomplish organizational goals and objectives.

04.02 Establish and maintain effective working relationships with others in order to accomplish objectives and tasks.

04.03 Conduct and participate in meetings to accomplish work tasks.

04.04 Employ mentoring skills to inspire and teach others.

05.0 Use oral and written communication skills in creating, expressing and interpreting information and ideas. The students will be able to:

05.01 Select and employ appropriate communication concepts and strategies to enhance oral and written communication in the workplace.

## CTE Standards and Benchmarks

05.02 Locate, organize and reference written information from various sources.

05.03 Design, develop and deliver formal and informal presentations using appropriate media to engage and inform diverse audiences.

05.04 Interpret verbal and nonverbal cues/behaviors that enhance communication.

05.05 Apply active listening skills to obtain and clarify information.

05.06 Develop and interpret tables and charts to support written and oral communications.

05.07 Exhibit public relations skills that aid in achieving customer satisfaction.

06.0 Describe the duties and responsibilities of a successful employee. The student will be able to:

06.01 Explain how to handle customer inquiries/complaints.

06.02 Explain how to handle difficult internal and external customers

06.03 Explain how to interpret policies to internal and external customers.

06.04 Classify customer services according to nature and characteristics of the activity.

06.05 Review methods to resolve customer problems through clarifying and explaining policies and procedures.

06.06 Explain the importance of stress management and relaxation techniques as they relate to job performance.

06.07 Demonstrate an understanding of gender, age, disability, and cultural courtesy.

06.08 Describe workplace codes of professional/business conduct.

06.09 Explain the concepts of integrity, credibility, reliability, and perseverance.

06.10 List the responsibilities an employer has for his/her employees (ethical, social, legal).

07.0 Demonstrate the competencies of employability and career development –Explain the importance of employability skills and entrepreneurship skills. The student will be able to:

07.01 Identify and demonstrate positive work behaviors needed to be employable.

07.02 Develop personal career plan that includes goals, objectives, and strategies.

07.03 Examine licensing, certification, and industry credentialing requirements.

07.04 Maintain a career portfolio to document knowledge, skills, and experience.

07.05 Evaluate and compare employment opportunities that match career goals.

## CTE Standards and Benchmarks

07.06 Identify and exhibit traits for retaining employment.

07.07 Identify opportunities and research requirements for career advancement.

07.08 Research the benefits of ongoing professional development.

07.09 Examine and describe entrepreneurship opportunities as a career planning option.

08.0 Use information technology tools. The students will be able to:

08.01 Use personal information management (PIM) applications to increase workplace efficiency.

08.02 Employ technological tools to expedite workflow including word processing, databases, reports, spreadsheets, multimedia presentations, electronic calendar, contacts, email, and internet applications.

08.03 Employ computer operations applications to access, create, manage, integrate, and store information.

08.04 Employ collaborative/groupware applications to facilitate group work.

09.0 Demonstrate the importance of health, safety, and environmental management systems in organizations and their importance to organizational performance and regulatory compliance. The student will be able to:

09.01 Describe personal and jobsite safety rules and regulations that maintain safe and healthy work environments.

09.02 Explain emergency procedures to follow in response to workplace accidents.

09.03 Create a disaster and/or emergency response plan.

10.0 Describe the roles within teams, work units, departments, organizations, inter-organizational systems, and the larger environment. The student will be able to:

10.01 Describe the nature and types of business organizations.

10.02 Explain the effect of key organizational systems on performance and quality.

10.03 List and describe quality control systems and/or practices common to the workplace.

10.04 Explain the impact of the global economy on business organizations.

11.0 Discuss the role of the entrepreneur. The student will be able to:

11.01 Define *entrepreneurship*.

11.02 Research innovations and the names and biographies of famous entrepreneurs, past and present.

11.03 Discuss the evolution of entrepreneurship.

## CTE Standards and Benchmarks

11.04 Describe the differences between a product-based business and a service-based business.

11.05 Identify the contributions of entrepreneurs to the economic growth of the United States.

11.06 Discuss future prospects for entrepreneurship and its anticipated impact on the economy.

11.07 Discuss the role of the entrepreneur in his/her local community (e.g., mentoring, philanthropy).

12.0 Discuss entrepreneurship as a career choice. The student will be able to:

12.01 Describe reasons for becoming an entrepreneur.

12.02 Identify characteristics common to successful entrepreneurs; research famous entrepreneurs.

12.03 Identify the education, aptitudes, and skills recommended for entrepreneurs.

12.04 Discuss the advantages and disadvantages of self-employment.

12.05 Discuss entrepreneurship as a personal goal.

12.06 Assess personal potential for entrepreneurship.

12.07 Identify career paths in supervisory, management, and small business environments.

13.0 Identify the basic economic principles of entrepreneurship. The student will be able to:

13.01 Identify the role of small businesses in the global economy.

13.02 Define and discuss *profit motive* and its impact on business.

13.03 Identify the different types of competition and explain the impact of competition on businesses (e.g., direct, indirect, price, non-price, competitive position).

13.04 Describe the differences between industrial and consumer goods.

13.05 Define *land, labor, capital, and entrepreneurship* as factors of production.

13.06 Discuss form, place, time, possession, and information utility.

13.07 Explain the meaning and causes of scarcity.

13.08 Identify the components of the Law of Supply and Demand in a free enterprise system.

13.09 Identify the stages of the product life cycle and the characteristics of each stage.

13.10 Identify the roles and types of producers, distributors, and services in the current business economy.

## CTE Standards and Benchmarks

13.11	Discuss major fields of business activity (e.g., extractive, subcontracting, manufacturing, wholesaling, retailing, services, cottage industries, urban street sales).
13.12	Discuss the four parts of a business (production, finance, marketing, customer service).
13.13	Identify factors that contribute to the success of a small business.
13.14	Describe the process of starting a small business.
13.15	Explain the procedures for registering a sole proprietorship and obtaining a sales tax identification number.
13.16	Discuss reasons for small business failure; develop an exit strategy and plan.
13.17	Recognize opportunities for small businesses in the global marketplace.
14.0	Describe the importance of professional ethics and legal responsibilities. The student will be able to:
14.01	Evaluate and justify decisions based on ethical reasoning.
14.02	Evaluate alternative responses to workplace situations based on personal, professional, ethical, legal responsibilities, and employer policies.
14.03	Identify and explain personal and long-term consequences of unethical or illegal behaviors in the workplace.
14.04	Interpret and explain written organizational policies and procedures.
15.0	Solve problems using critical thinking skills, creativity and innovation. The student will be able to:
15.01	Employ critical thinking skills independently and in teams to solve problems and make decisions.
15.02	Employ critical thinking and interpersonal skills to resolve conflicts.
15.03	Identify and document workplace performance goals and monitor progress toward those goals.
15.04	Conduct technical research to gather information necessary for decision-making.
16.0	Demonstrate personal money-management concepts, procedures, and strategies. The student will be able to:
16.01	Identify and describe the services and legal responsibilities of financial institutions.
16.02	Describe the effect of money management on personal and career goals.
16.03	Develop a personal budget and financial goals.
16.04	Complete financial instruments for making deposits and withdrawals.
16.05	Maintain financial records.

## CTE Standards and Benchmarks

16.06 Read and reconcile financial statements

16.07 Research, compare and contrast investment opportunities.

17.0 Use appropriate equipment and supplies safely and correctly. The student will be able to:

17.01 These student performance standards are job specific and correspond to the job preparatory program in which the student is enrolled.

18.0 Demonstrate competencies identified for a specific program component. The student will be able to:

18.01 These student performance standards are job specific and correspond to the job preparatory program in which the student is enrolled.

### **OPTIONAL**

19.0 Demonstrate acquired skills through On-The-Job training. The student will be able to:

19.01 Display a positive attitude toward a job.

19.02 Demonstrate job performance skills.

19.03 Display expected level of productivity.

19.04 Use evaluations to improve own performance.

19.05 Identify, organize, plan and allocate resources.

19.06 Work cooperatively with others.

19.07 Acquire and use information including using computers.

19.08 Work effectively within the context of complex interrelationships.

19.09 Work with a variety of technologies.

19.10 Perform basic computer operations.

### **Listed below are the eight career and education planning course standards:**

The student will be able to:

20.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.

21.0 Develop skills to locate, evaluate, and interpret career information.



## CTE Standards and Benchmarks

22.0	Identify and demonstrate processes for making short and long term goals.
23.0	Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
24.0	Understand the relationship between educational achievement and career choices/postsecondary options.
25.0	Identify a career cluster and related pathways that match career and education goals.
26.0	Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
27.0	Demonstrate knowledge of technology and its application in career fields/clusters.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Academic Alignment**

Secondary Career and Technical Education courses are pending alignment to the B.E.S.T. (Benchmarks for Excellent Student Thinking) Standards for English Language Arts (ELA) and Mathematics that were adopted by the State Board of Education in February 2020. Academic alignment is an ongoing, collaborative effort of professional educators that provide clear expectations for progression year-to-year through course alignment. This initiative supports CTE programs by improving student performance through the integration of academic content within CTE courses.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Cooperative Training – OJT**

On-the-job training is appropriate but not required for this program. Whenever offered, the rules, guidelines, and requirements specified in the OJT framework apply.

### **Special Notes**

The career and education planning course required by Section 1003.4156, Florida Statutes, has been integrated into this course. This course must include career exploration using CHOICES or a comparable cost-effective program and educational planning using the online student advising system known as Florida Academic Counseling and Tracking for Students at the Internet website FACTS.org; and shall result in the completion of a personalized academic and career plan.

\*The information appearing after standard #7 is new to this course and allows districts to integrate the middle school Career Exploration and Decision Making course as required by Section 1003.4156, Florida Statutes.

Primary emphasis will be given to the diagnosis of the individual's interest and aptitude, followed by involvement in appropriate occupational competencies, consistent with the individual's education level. This program is designed to allow the institution's career and technical education department in cooperation with the Division of Career and adult Education to develop student performance standards for specific instructional components based upon identified occupational titles in any of the career clusters of Agriculture, Food and Natural Resources; Architecture and Construction; Arts, A/V Technology and Communication; Business, Management and Administration; Education and Training; Finance; Government and Public Administration; Health Science; Hospitality and Tourism; Human Services; Information Technology; Law, Public Safety and Security; Manufacturing; Marketing, Sales and Services; Science, Technology, Engineering and Mathematics (STEM); and Transportation, Distribution and Logistics. This curriculum framework and the adopted student performance standards will be the basis for program operation and program review. The specialized student performance standards will be based upon:

- 1) Serving the special needs of institution's clients with an average commitment time of four (4) to six (6) months.
- 2) Organized instruction provided by a qualified instructor.
- 3) Input from a program advisory committee composed of representatives of business and industry.
- 4) Documentation for evaluation and accountability purposes.

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student. Access MyCareerShines by visiting:

### **Career Planning**

**Effective July 1, 2019, per Section 1003.4156, Florida Statutes (F.S.), for students to meet middle grades promotion requirements, a Career and Education Planning course must be completed in either sixth, seventh, or eighth grade.** These courses should be taught integrating the eight career and education planning course standards. Additional information on the Middle School Career and Education Planning course and the list of standards is available at. The MyCareerShines powered by Kuder® career planning system is available free of charge to all Florida middle and high schools to assist students in completing research-based career assessments, exploring career options and developing an online academic and career plan.

### **English Language Development ELD Standards Special Notes Section**

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate information, ideas and concepts for academic success in the content area of Language Arts. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. To access an ELL supporting document which delineates performance definitions and descriptors.

For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition at

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Some secondary students with disabilities (ESE) may need additional time (i.e., longer than the regular school year), to master the student performance standards associated with a regular Occupational Completion Point (OCP) or a Modified Occupational Completion Point (MOCP). If needed, a student may enroll in the same career and technical course more than once. Documentation should be included in the IEP that clearly indicates that it is anticipated that the student may need an additional year to complete an OCP/MOCP. The student should work on different competencies and new applications of competencies each year toward completion of the OCP/MOCP. After achieving the competencies identified for the year, the student earns credit for the course. It is important to ensure that credits earned by students are reported accurately. The district's information system must be designed to accept multiple credits for the same course number for eligible students with disabilities.

Florida Department of Education  
Curriculum Framework

**Program Title:** Information & Communications Technology (ICT) Essentials  
**Program Type:** Orientation/Exploratory  
**Career Cluster:** Information Technology

**Secondary – Middle School**

Program Number	9009100
CIP Number	149009100M
Grade Level	6-8
Standard Length	Year
Teacher Certification	Refer to the <b><u>Program Structure</u></b> section.
CTSO	FBLA BPA

**Purpose**

The purpose of this course is to provide students with the computer, digital, and information technology skills necessary for success in their future academic and occupational goals. In addition to fundamental computer information, the content includes but is not limited to digital technologies associated with web development, multimedia, word processing, spreadsheet, database, Internet communications, cybersecurity, and computer programming.

Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Program Structure**

This program is a planned sequence of instruction consisting of three course(s).

To teach the courses listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
9009110	Information & Communications Technology (ICT) Essentials 1	BUS ED 1 @2 COMPU SCI 6 INFO TECH 7G WEB DEV 7G	Year
9009120	Information & Communications Technology (ICT) Essentials 2		Year
9009130	Information & Communications Technology (ICT) Essentials 3		Year

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Identify computer components and their functions.
- 02.0 Demonstrate knowledge of different operating systems.
- 03.0 Demonstrate an understanding of Internet safety and ethics.
- 04.0 Demonstrate proficiency using the Internet to locate information.
- 05.0 Demonstrate proficiency in using word processing software.
- 06.0 Demonstrate proficiency in using presentation software.
- 07.0 Demonstrate proficiency in using graphics software.
- 08.0 Demonstrate appropriate use of email.
- 09.0 Demonstrate knowledge of safety and privacy practices for online communication.
- 10.0 Develop and apply fundamental spreadsheet skills.
- 11.0 Develop and apply database skills.
- 12.0 Demonstrate skill in using video editing software and equipment.
- 13.0 Demonstrate proficiency in using audio editing software (e.g., Audacity).
- 14.0 Demonstrate proficiency locating, gathering, and preparing textual, graphical, and image-based web content.
- 15.0 Use Web 2.0 or Internet-based collaborative technology (e.g., Wikis, Wimba, Moodle, Edmodo, Facebook, Schoology, Goggle) to facilitate a web development or research project.
- 16.0 Demonstrate an understanding of computer networks.
- 17.0 Demonstrate proficiency in webpage development.
- 18.0 Demonstrate proficiency in game development.
- 19.0 Demonstrate proficiency in basic programming.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Information & Communications Technology (ICT) Essentials 1  
**Course Number:** 9009110  
**Course Length:** Year  
**Grade:** 6-8

**Course Description:**

This course introduces students to core concepts associated with computers and their use. The content includes hands-on opportunities to explore various software applications.

<b>CTE Standards and Benchmarks</b>	
01.0	Identify computer components and their functions. The student will be able to:
01.01	Describe what defines a computer and ways a computer can be used.
01.02	Identify the internal components of a computer (e.g., case, CPU, RAM, power supply, hard drive, motherboard, expansion cards, cabling).
01.03	Identify and know how to connect various computer input devices (e.g., mouse, keyboard, phone, camera, scanner, microphone, game controller, stylus, barcode reader, finger print scanner, GPS device, touch pad, graphics tablet) and describe their use.
01.04	Identify and know how to connect various computer output devices (e.g., monitor, printer, projector, speakers, headphones) and describe their use.
01.05	Identify and know how to connect various storage devices (e.g., flash drive, external hard drive (SSD, network drive), memory card, discs, cloud).
02.0	Demonstrate knowledge of different operating systems. The student will be able to:
02.01	Compare and contrast various operating systems used in a computer and mobile devices (i.e., Windows, OS (Apple), UNIX, Android, iOS).
02.02	Describe and use conventional file naming conventions.
02.03	Demonstrate proficiency with file management tasks (e.g., folder creation, file creation, backup, copy, delete, open, save).
02.04	Be able to identify file types by extension (e.g., .doc, .txt, .wav, xls).
02.05	Demonstrate proficiency in using gadgets, icons, and taskbars and other pre-loaded operating system programs. (e.g., calculator, text editor, clock, volume controls, adding icons and shortcuts to taskbar and shortcut menus).
03.0	Demonstrate an understanding of Internet safety and ethics. The student will be able to:



03.01	Describe risks associated with social networking sites (e.g., FaceBook, Snapchat, Instagram, Twitter) and ways to reduce these risks.
03.02	Define “privacy” and relate it to the term “digital footprint”.
03.03	Practice cybersafety techniques to protect your personal information when using internet searches, email, chat rooms, and social network websites.
03.04	Describe cyberbullying, its impact on perpetrators and victims and ways to respond.
03.05	Describe risks associated with sexting (including legal issues, social consequences), and discuss methods for response, reporting, and prevention.
03.06	Describe risks associated with online gaming, and identify ways to reduce these risks.
03.07	Discuss issues related to downloading music or videos from the Internet, including unethical vs. illegal actions.
03.08	Compare and contrast rules for copyright and fair use, especially in relation to using online resources for school and educational purposes.
03.09	Distinguish between viruses and malware and discuss their impact on personal privacy and computer operation.
03.10	Describe common threats used to spread malware and viruses, including phishing, pharming, Trojans, spyware, malicious sites, “free” downloads.
03.11	Perform an antivirus scan on a computer system to check for viruses and malware.
03.12	Describe strong password practices.
03.13	Practice cyber safety techniques to protect your computer system when using Internet searches, email and social network websites.
03.14	Identify security issues related to mobile phones, including personal information compromised if a phone is lost or stolen.
03.15	Adhere to Acceptable Use Policies when accessing the Internet.
04.0	Demonstrate proficiency using the Internet to locate information. The student will be able to:
04.01	Identify and use web terminology (WWW, Web Browser, Internet, Web Server, Web Page, Address Bar, Hyperlinks, Navigation Buttons, Search Bar, Bookmarks/Favorites, Tab, Downloading, Plug-ins, Social Media Plug-ins).
04.02	Define Universal Resource Locators (URLs) and associated protocols (e.g., http, ftp, telnet, mailto).
04.03	Compare and contrast the types of Internet domains (e.g., .com, .org, .edu, .gov, .net, .mil).
04.04	Demonstrate proficiency using search engines, including Boolean search techniques.
04.05	Demonstrate proficiency using various web tools (e.g., downloading of files, transfer of files, telnet, PDF).
04.06	Compare and contrast the roles of web servers and web browsers.

04.07	Evaluate online information for relevance, credibility and quality using basic guidelines and indicators (e.g. authority, affiliation, purpose, bias, date).
04.08	Identify and apply copyright and fair use guidelines, and explain plagiarism as an ethical and legal violation.
04.09	Incorporate results from Internet searches into a research project (e.g., report, summary).
04.10	Download images as needed to support a research project, complying with copyright notices.
04.11	Properly cite Internet sources used to obtain information for a research project.
05.0	05.0 Demonstrate proficiency in using word processing software. The student will be able to:
05.01	Describe the general functions of word-processing software, including benefits for document creation, commonly used word-processing applications.
05.02	Define the term “cloud computing,” and explain benefits of creating and storing word-processing documents online.
05.03	List and describe common word processor interface tools and features.
05.04	Identify common keyboard shortcuts used in word processors, and explain the benefits of using shortcuts.
05.05	Format the page setup of a document, including margins, line spacing, indents, headers vs. footers, orientation.
05.06	Explain printing options in a word processor, including shrink-to-fit, 2-sided printing, and document orientation.
05.07	Copy, paste and move text within a document using mouse, menu and keyboard techniques.
05.08	Copy, paste and move text among multiple documents using mouse, menu and keyboard techniques.
05.09	Modify document view settings to display close-up, single and multiple pages.
05.10	Define the term “format” as it relates to word processing.
05.11	Format text using styles and font tools in a word processor.
05.12	Format a document using multi-level heading styles to enable an outline view (e.g. document map, navigation pane) in a word processor.
05.13	Create a table of contents using auto-generation tools and techniques in a word processor.
05.14	Insert page breaks in a document.
05.15	Create source citations and/or a bibliography in a document.
05.16	Insert a current date and time stamp into a document.

05.17	Use word processor tools to determine the number of pages, words and characters in a document.
05.18	Use spell check, grammar check, thesaurus, and find & replace to edit a document.
05.19	Insert and modify sizing of images in a word-processing document.
05.20	Position an image relative to text in a document, using various text-wrapping options (inline, square, tight).
05.21	Use word-processing drawing tools to create pre-formatted shapes that enhance a document's content.
05.22	Use word-processor drawing tools to create a visual representation of information (e.g. SmartArt), such as diagram, flow chart.
05.23	Apply a column layout to text in a document as appropriate for the content (e.g., article, newsletter).
05.24	Apply simple numbered and bulleted lists in a document to make content easier to read and understand.
05.25	Format numbered and bulleted lists to produce multi-level outline in a document.
05.26	Create a simple brochure and/or flyer using a template.
05.27	Create a table in a word-processing document, and enter and move data in the table.
05.28	Convert a body of text into a table structure in a document to make content easier to read and understand.
05.29	Define "collaboration" and explain ways that users can collaborate on word-processing documents, including installed software vs. cloud-based software, real-time collaboration, auto save, sharing tools, revision history.
05.30	Use the translation tool in a word processor to translate text in a document from English into another language, and vice versa.
05.31	Add comments to a document when reviewing and/or editing content.
05.32	Revise a document using editing tools (e.g. Track Changes) in a word processor, and accept or reject changes as appropriate.
06.0	Demonstrate proficiency in using presentation software. The student will be able to:
06.01	Describe presentation software and the ways it can be used.
06.02	Create and/or modify a "slide master" or template to apply a consistent appearance to a presentation.
06.03	Add and format titles, subtitles and talking points in presentation slides.
06.04	Add slide numbers and/or date and time codes to presentation slides.
06.05	Insert and format images/graphics in presentation slides.
06.06	Insert new or duplicate slides in a presentation.

06.07	Modify slide transitions in a presentation to include animation.
06.08	Insert and/or modify sound settings and timing in a presentation.
06.09	Modify the sequence of slides in a presentation.
06.10	Produce a presentation that includes text, graphics and images, and present it.
06.11	Modify a presentation's setup to repeat (i.e., loop) the presentation continuously.
07.0	Demonstrate proficiency in using graphics software. The student will be able to:
07.01	Describe graphics software and the ways it can be used.
07.02	Compare and contrast vector and raster images.
07.03	Identify image file formats for photos and graphical art (e.g., TIFF, BMP, PSD, EPS, JPEG, GIF, PNG), and specify which formats are supported on the web.
07.04	Define terms related to the creation and display of graphical images (e.g., raster, vector, transparency, opacity, cropping, lasso, magic wand, marquee, canvas size, flattened, blur, dodge, sharpen, stacking order, free transform, lossless, adjustments, move, clone, zoom, layers, filter, distort).
07.05	Create images with effects using different tools, brushes, adjustments and filters available in graphics software.
07.06	Copy and paste graphical images.
07.07	Modify shapes and colors in a graphical image.
07.08	Save and export a digital photograph in a format that provides the best image quality and file size for Internet use.
07.09	Create a progressive slide presentation using graphical design/layout template features (e.g., SmartArt) and animated transitions.
07.10	Use a portable digital video device (e.g., mobile phone, flip camera) or similar online tools to shoot video files, and transfer them to a computer.
07.11	Use video-editing software to produce a slide show or movie.
07.12	Create a multimedia presentation that incorporates edited video, animation, music and/or narration, and that applies principles of good design, smooth transitions and effective message delivery.
08.0	Demonstrate appropriate use of email. The student will be able to:
08.01	Define "email "and describe the functions and advantages as a form of communication.
08.02	Identify components of an email message.
08.03	Explain the format of an email address (i.e., user name, @ symbol, domain).

08.04 Attach a file to an email message.

08.05 Reply to and forward an email message to one or more addressees.

08.06 Use the Internet to perform email activities (i.e., web-based email).

08.07 Identify the appropriate use of email and demonstrate related email etiquette.

08.08 Perform email organization and cleanup (e.g., trash, flags, create folders).

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Information & Communications Technology (ICT) Essentials 2  
**Course Number:** 9009120  
**Course Length:** Year  
**Grade:** 6-8

**Course Description:**

This course builds on the previous course and provides greater depth and more complex concepts and the skills/knowledge to master these concepts. Students will be provided opportunities to extend their skills with various software applications by creating more complex documents and using more complex functions.

<b>CTE Standards and Benchmarks</b>	
09.0	Demonstrate knowledge of safety and privacy practices for online communication. The student will be able to:
09.01	Define “privacy” and relate it to the term “digital footprint.”
09.02	Describe the risks of communicating on social networking sites (e.g. Facebook, Twitter, Instagram) and identify ways to communicate safely.
09.03	Distinguish between copyright infringement, plagiarism and fair use in an educational setting and in relation to school projects, especially with music and pictures.
09.04	Describe online communication practices that contribute to cyberbullying.
09.05	Practice safe online communication techniques with Internet searches, email, chat rooms, and other social network websites.
09.06	Follow an Acceptable Use Policy (AUP) when accessing the Internet.
10.0	Develop and apply fundamental spreadsheet skills. The student will be able to:
10.01	Define “spreadsheet” and describe ways it may be used.
10.02	Identify the parts of the spreadsheet display, including cells, columns and rows, cell references, cell range.
10.03	Create and navigate through multiple spreadsheets in a file.
10.04	Insert and format various types of data (text, numeric, date/time) in a spreadsheet cells.

## CTE Standards and Benchmarks

10.05	Select multiple cells, including adjacent and non-adjacent ranges, using mouse and keyboard techniques.
10.06	Cut, copy, and paste information from one or more cells to another part of the spreadsheet.
10.07	Use the undo and redo tools in a spreadsheet.
10.08	Apply and modify cell formatting for currency, date and percentage values.
10.09	Resize column width and row height in a spreadsheet.
10.10	Insert and delete columns and rows in a spreadsheet.
10.11	Merge and unmerge cells in a spreadsheet.
10.12	Apply shading and borders to a spreadsheet.
10.13	Describe the purpose of a table and how it relates to a spreadsheet.
10.14	Create and print a table and/or range that displays and sums the values of different data types.
10.15	Identify various types of charts (e.g., line, bar, pie, scatter) and common chart components (e.g., vertical axis, horizontal axis, legend), and explain when to use each chart type.
10.16	Create a chart from existing data and format the pieces (data set), change the background color, and add appropriate titles and a legend.
10.17	Use the auto sum function to calculate the values of multiple cells.
10.18	Insert common functions (SUM, AVERAGE, COUNT, MAX, MIN) and simple mathematical formulas which include addition, subtraction, multiplication, or division into a spreadsheet.
10.19	Distinguish between absolute and relative cell references in a spreadsheet.
10.20	Use the sort function to organize information numerically or alphabetically, including multiple levels of sorting.
10.21	Use the filter function to display spreadsheet data based on specific criteria.
10.22	Use conditional formatting to highlight text in a spreadsheet.
11.0	Develop and apply database skills. The student will be able to:
11.01	Define database and describe real-world uses (e.g. search engines, schools, drivers licenses & car registrations, hospitals, retail, law enforcement).
11.02	Distinguish between databases and spreadsheets.
11.03	Identify advantages of using a database instead of alternatives (e.g., spreadsheets, electronic documents, paper).

## CTE Standards and Benchmarks

11.04 Define “Big Data” and describe how it is used in advertising.

11.05 Identify the components of a database.

11.06 Distinguish between fields and records in a database.

11.07 Describe the basic data types and formats used in a database.

11.08 Distinguish between a table and a query.

11.09 Identify database keys, including primary and foreign.

11.10 Identify the relationships between tables in databases (i.e., one-to-one, one-to-many, many-to-many).

11.11 Distinguish between a query and a report.

11.12 Identify various report types.

11.13 Describe Structured Query Language (SQL) and discuss its use with databases.

11.14 Identify and compare various database applications, including Microsoft Access, MySQL, Oracle.

11.15 Create a database table that uses multiple data types.

11.16 Add, Edit, and Delete records from a database table.

11.17 Sort records in a database query or table.

11.18 Troubleshoot common database errors, including data type errors, query syntax errors.

11.19 Create a basic select query in one table.

11.20 Create an action query to manipulate data.

11.21 Create a query using primary and foreign keys.

11.22 Create a simple table join.

11.23 Import and export data from a database into a spreadsheet.

11.24 Create relevant reports from a database.

12.0 Demonstrate skill in using video editing software and equipment. The student will be able to:



## CTE Standards and Benchmarks

12.01 Demonstrate ability to operate a video camera (e.g., Flip camera, cell phone).

12.02 Write storyboards to depict a one minute video segment.

12.03 Determine appropriate lighting needs.

12.04 Create video shots sufficient to produce a one minute video.

12.05 Identify the functions and benefits of the digital video software interface.

12.06 Demonstrate ability to edit, cut, erase, and insert video.

12.07 Edit video as needed to achieve desired message and length.

12.08 Describe a first complete run-through of the video production process.

12.09 Characterize the qualities of effective communication in a completed video.

12.10 Upload finished video files to a website.

13.0 Demonstrate proficiency in using audio editing software (e.g., Audacity). The student will be able to:

13.01 Identify the functions and benefits of the audio editing software interface.

13.02 Demonstrate ability to edit, cut, erase, and insert audio.

13.03 Edit audio as needed to achieve desired message and length.

13.04 Prepare a 30 second to 1 minute audio commercial project.

14.0 Demonstrate proficiency locating, gathering, and preparing textual, graphical, and image-based web content. The student will be able to:

14.01 Define the elements of a webpage and what makes a good webpage.

14.02 Describe effective text and image content for webpages based on how visitors use the web.

14.03 List guidelines and conventions for effective text on webpage.

14.04 Explain the inverted pyramid model of newspaper journalism and how it applies to web content.

14.05 Use word-processing software to create effective written content for a webpage.

14.06 Create and/or edit message-driven image content for a webpage using graphics software.

**CTE Standards and Benchmarks**

14.07 Access graphics through various recourses (e.g., scanner, digital camera, CD-ROM, clipart, copyright-free online graphics).

14.08 Plan the content and design of a basic webpage using strategies for effective Web communication, including brainstorming, determining audience, choosing content and media types, using white space.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Information & Communications Technology (ICT) Essentials 3  
**Course Number:** 9009130  
**Course Length:** Year  
**Grade:** 6-8

**Course Description:**

This course builds on the previous two courses and provides greater depth and more complex concepts and the skills/knowledge to master these concepts. In addition to working with network concepts, students will be provided opportunities to further extend their skills with various software applications by creating more complex documents and using more complex functions and technologies. Students will continue their exposure to computer programming and the creation of more complex computer programs. For the programming instruction, the use of Alice from Carnegie Mellon University is encouraged as it is a highly engaging program, includes instructional materials, and is available at no cost.

<b>CTE Standards and Benchmarks</b>	
15.0	Use Web 2.0 or Internet-based collaborative technology (e.g., Wikis, Wimba, Moodle, Edmodo, Facebook, Schoology, Goggle) to facilitate a web development or research project. The student will be able to:
15.01	Create and use a collaborative environment for communicating and sharing among project team members.
15.02	Create and use a social media page (e.g., Wikis, Wimba, Moodle, Edmodo, Facebook, Schoology, Goggle) to share and publish project components (e.g., content, images, graphics, videos) for gauging visitor reaction and obtaining feedback.
16.0	Demonstrate an understanding of computer networks. The student will be able to:
16.01	Define “network” and give examples of networks used at home, school, and work.
16.02	Compare types of networks, including LAN, WAN, MAN, VPN, intranet, extranet, the Internet.
16.03	Compare common network topologies, including bus, star, ring, mesh.
16.04	Compare various network models and their advantages, including client/server, mainframe/terminal, peer-to-peer.
16.05	Compare various methods and media for network connections, including broadband, wireless, Bluetooth, cellular, satellite.
16.06	Describe the functions of various network hardware devices, including NIC, hub, switch, router, bridge, gateway, access point.
16.07	Describe the purpose of protocols, and identify the protocols commonly used in networks, including TCP/IP, DHCP, DNS, HTTP, FTP, IMAP, POP, SMTP.

## CTE Standards and Benchmarks

16.08 Describe the purpose and function of IP addressing and distinguish between public and private IP addresses.

16.09 Describe the OSI reference model and its layers, including tracing the flow of data between two network nodes through the OSI layers.

17.0 Demonstrate proficiency in webpage development. The student will be able to:

17.01 Identify website domains, and relate a site's domain to its purpose.

17.02 Relate basic components of a webpage (e.g. color, space, written content, typography, images, links, multimedia) to aesthetic, functional and/or usable design principals.

17.03 Define aesthetic design, and explain how aesthetics can affect a visitors' perception of a website's information.

17.04 Demonstrate knowledge of color wheel concepts and effective use of color on a website.

17.05 Compare functional and usable design principles, and explain how usability can affect a website's success.

17.06 Critique the aesthetic design, usability and accessibility of sample websites.

17.07 Define multimedia, and identify its role in webpage interactivity.

17.08 Explain the primary steps of the website planning process.

17.09 Apply the website planning process to plan the design for basic website.

17.10 Build the site navigation scheme for a website.

17.11 Compare webpage creation using an HTML text editor to using a graphical user interface (GUI) editor.

17.12 Compare website creation using an online site builder, an offline site builder and a content management system (CMS).

17.13 Modify an existing webpage template to create an effective look and feel for a website.

17.14 Create a website using a template.

17.15 Define "HTML (Hypertext Markup Language)" and related terms, including tag vs. element, container vs. empty tag, block-level vs. inline element, attribute value, semantic tag.

17.16 Identify HTML elements required to create webpage structure.

17.17 Create webpages using basic HTML tags (e.g., headings, lists, character styles, text alignment, tables, comments).

17.18 Use HTML to create hyperlinks to external sites.

## CTE Standards and Benchmarks

17.19 Use HTML to insert common image file formats into webpages, and use an image as a hyperlink.

17.20 Explain Cascading Style Sheet (CSS) technology.

17.21 Apply CSS styles to an HTML page.

17.22 Create and/or edit animation files, and integrate them into a webpage.

17.23 Create and/or edit video files, and integrate them into a webpage.

17.24 Use Dynamic HTML (DHTML) to enhance webpage interactivity.

17.25 Create and use a wiki or similar tool for collaborating among project team members.

17.26 Create and use a social media page (e.g., Facebook, Wimba, Edmodo) and/or a blog to share content and collaborate on projects.

17.27 Review webpage content, verify copyright restrictions, and create meta-data before publishing a site to the internet.

17.28 Test webpages for display, functionality, and accessibility before publishing a site to the Internet.

17.29 Validate webpage code using W3C validation tools before publishing a site to the Internet.

17.30 Describe network issues relating to websites, including bandwidth, compression, streaming, web hosting.

17.31 Explain the purpose of File Transfer Protocol (FTP) in accessing information on the Internet.

17.32 Publish a website using FTP.

17.33 Describe website security methods, including secure server vs. unsecured served, SSL, SSH, encryption.

18.0 Demonstrate proficiency in game development. The student will be able to:

18.01 Describe the role of games in modern society (e.g., education, task training, social networking, therapy, recreation).

18.02 Identify various types of games (e.g., chance, skill, knowledge, role-playing, and storytelling).

18.03 Identify the steps of the design process for creating a game.

18.04 Apply the design process to solving a problem.

18.05 Analyze (deconstruct) existing games.

18.06 Identify the tools and skills needed for creating games.

## CTE Standards and Benchmarks

18.07	Identify design criteria and constraints.
18.08	Create storyboards to model a game's program flow and functionality.
18.09	Identify the programmer's role in creating games.
18.10	Identify common programming languages and applications used to create computer games.
18.11	Compare sequential, iteration (loop) and selection programming structures.
18.12	Define the term algorithm (i.e., a set of repeatable steps) and how it applies to problem solving.
18.13	Create an algorithm to solve a problem or complete a task.
18.14	Use pseudo-code to model a game program's flow.
18.15	Define logic errors and identify them in a game program or model.
18.16	Explain the types and uses of variables in game programming.
18.17	Describe basic Boolean concepts, including logical operators, order of precedence, expressions.
18.18	Describe the use of events, event handlers and functions in game programming.
18.19	Describe the use of parameters and arguments in game programming.
18.20	Describe the use of objects, classes and instances in game programming.
18.21	Describe the use of properties and methods with objects in game programming.
18.22	Write appropriate code to create a simple game using structured programming.
18.23	Test and evaluate the game program you created.
18.24	Modify the game program as needed to solve a problem.
18.25	Create an animated object (i.e., sprite) to be used in a game program.
18.26	Use programming code to control the behavior of an animated object (i.e., sprite) in a game program.
19.0	Demonstrate proficiency in basic programming. The student will be able to:
19.01	Define "programming" and discuss its role in computing.
19.02	Explain the binary representation of data and programs in computers.

## CTE Standards and Benchmarks

19.03 Distinguish among the three types of programming languages (machine, assembly, high-level), and give examples.

19.04 Compare and contrast languages that are usually compiled (e.g., C++, Java) and interpreted (e.g., JavaScript, Python).

19.05 Describe the structure of a simple program, and explain why sequencing is important.

19.06 Write a program design document using pseudo-code that shows program flow.

19.07 Explain strategies used in problem-solving, and relate them to computer programming.

19.08 Define the term “algorithm,” and explain how it relates to problem-solving.

19.09 Explain the three types of programming errors (i.e., logic, syntax, runtime), and describe the forms of testing that can be used to locate and debug errors.

19.10 Solve a problem using logic by planning a strategy, designing and testing a hypothesis, and/or creating a set of step-by-step instructions to perform a task.

19.11 Define “structured programming” and discuss the advantages of this approach.

19.12 Define the three main programming control structures used in structured programming: sequential, selection (decision), and iteration (loops).

19.13 Describe iterative programming structures (e.g., while, do/while) and how they are used in programming.

19.14 Describe selection programming structures (e.g., if/then, else) and explain the logic used for if statements.

19.15 Write a simple program in pseudo-code that uses structured programming to solve a problem.

19.16 Explain the types and uses of variables in programming.

19.17 Explain basic object-oriented concepts.

19.18 Describe fundamental Boolean concepts, including Boolean algebra, operators, logic.

19.19 Create animated objects using a high-level programming environment (e.g., Alice, Greenfoot) to control their behavior.

19.20 Create a simple program that uses animated objects.

19.21 Convert a simple program from pseudo-code into a common high-level programming environment (e.g. Alice, Greenfoot).

19.22 Troubleshoot and debug errors in code.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

FBLA and BPA are the intercurricular career and technical student organizations providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.



In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Course Title:** Coding Fundamentals  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Information Technology

**Secondary – Middle School**

Course Number	9009200
CIP Number	0511020109
Grade Level	6-8
Standard Length	Semester/Year
Teacher Certification	Refer to the <b><u>Course/Program Structure</u></b> section.
CTSO	FBLA, TSA, BPA

**Purpose**

The purpose of this course is to assist Information Technology students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the career cluster. The content includes but is not limited to foundational knowledge and skills related to computer coding and software development. Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Course/Program Structure**

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course. The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
9009200	Coding Fundamentals	BUS ED 1@2 COMPU SCI 6 INFO TECH 7G WEB DEV 7G COMP PROG 7G	Semester/Year

**Standards:**

After successfully completing this course, the student will be able to perform the following:

- 01.0 Demonstrate proficiency using specialized computer coding software.
- 02.0 Develop an awareness of programming languages.
- 03.0 Demonstrate proficiency using common software applications.
- 04.0 Demonstrate knowledge, skill, and application of information systems to accomplish job objectives and enhance workplace performance.
- 05.0 Demonstrate comprehension and communication.
- 06.0 Demonstrate knowledge of different operating systems.
- 07.0 Demonstrate proficiency in basic programming.

**Florida Department of Education  
Student Performance Standards**

**Course Title:**        **Coding Fundamentals**  
**Course Number:**   **9009200**  
**Course Length:**    **Year**

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate proficiency using specialized computer coding software. The student will be able to:
01.01	Use specialized computer coding software to solve problems.
01.02	Demonstrate proficiency using specialized computer software (e.g., Swift, Python).
02.0	Develop an awareness of programming languages. The student will be able to:
02.01	Identify programming language design approaches.
02.02	Explain the components of programming languages.
02.03	Examine connections between elements of mathematics and computer science including binary numbers, logic, sets, and functions.
03.0	Demonstrate proficiency of using common software applications. The student will be able to:
03.01	Compare and contrast the appropriate use of various software applications.
03.02	Demonstrate proficiency in the use of various software applications.
03.03	Explain why different file types exist (e.g., formats for word processing, images, music, and three-dimensional drawings).
03.04	Identify the kinds of content associated with different file types.
04.0	Demonstrate knowledge, skill, and application of information systems to accomplish job objectives and enhance workplace performance. The student will be able to:
04.01	Develop keyboarding skills to enter and manipulate text and data.
04.02	Describe and use current and emerging computer technology and software to perform personal and business related tasks.
04.03	Perform a variety of operations such as sorting, filtering, and searching in a database to organize and display information in a variety of ways such as number formats (e.g., scientific notation, percentages, and exponents) charts, tables and graphs.
05.0	Demonstrate comprehension and communication. The student will be able to:
05.01	Use listening, speaking, telecommunication and nonverbal skills and strategies to communicate effectively.

## CTE Standards and Benchmarks

05.02 Organize ideas and communicate oral and written messages.

05.03 Collaborate with individuals and teams to complete tasks and solve information technology problems.

05.04 Demonstrate an awareness of project management concepts and tools.

05.05 Demonstrate an ability to communicate appropriately through various online tools.

05.06 Recognize that more than one algorithm can solve a given problem.

05.07 Create a program that implements an algorithm to achieve a given goal, individually and collaboratively.

06.0 Demonstrate knowledge of different operating systems. The student will be able to:

06.01 Compare and contrast various operating systems used in a computer and mobile devices (i.e., Windows, OS (Apple), UNIX, Android, iOS).

06.02 Demonstrate proficiency in using gadgets, icons, and task bars and other pre-loaded operating system programs (e.g., calculator, text editor, clock, volume controls, adding icons and shortcuts to task bar and shortcut menus).

06.03 Use iterative development and debugging to explore the problem domain.

07.0 Demonstrate proficiency in basic programming. The student will be able to:

07.01 Describe the structure of a simple program, and explain why sequencing is important.

07.02 Define the term “algorithm,” and explain how it relates to problem-solving.

07.03 Describe iterative programming structures (e.g., while, do/while) and how they are used in programming.

07.04 Describe selection programming structures (e.g., if/then, else) and explain the logic used for if statements.

07.05 Explain the types and use of variables in programming.

07.06 Write a simple program in pseudo-code that used structured programming to solve a problem.

07.07 Troubleshoot and debug errors in code.

07.08 Create, modify, and use a database (e.g., define field formats, adding new records, manipulate data) to analyze data and propose solutions for a task/problem, individually and collaboratively.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

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For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

FBLA, TSA and BPA are the inter-curricular career and technical student organizations providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

This course provides foundational knowledge toward SOC codes 15-1132.00 Software Developers, Applications and 15-1131.00 Computer Programmers.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.



Florida Department of Education  
Curriculum Framework

**Course Title:** Exploring Information Technology Careers  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Information Technology

**Secondary – Middle School**

Course Number	9009350
CIP Number	149009350M
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	FBLA BPA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Information Technology career cluster. The content includes but is not limited to terminology, careers, history, required skills, and technologies associated with pathways comprising the Information Technology career cluster. Reinforcement of academic skills occurs through classroom instruction and applied laboratory procedures.

Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

## Course Structure

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
9009350	Exploring Information Technology Careers	BUS ED 1 @2 COMPU SCI 6 INFO TECH 7 G WEB DEV 7 G DIGI MEDIA 7 G CYBER TECH 7 G COMP PROG 7 G	Semester

## **Standards**

After successfully completing this course, the student will be able to perform the following:

- 01.0 Demonstrate an understanding of the Network Systems career pathway.
- 02.0 Demonstrate an understanding of the Information Support and Services career pathway.
- 03.0 Demonstrate an understanding of the Web and Digital Communications career pathway.
- 04.0 Demonstrate an understanding of the Programming and Software Development career pathway.
- 05.0 Apply leadership and communication skills.
- 06.0 Describe how information technology is used in the Information Technology career cluster.
- 07.0 Use information technology tools.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Exploring Information Technology Careers  
**Course Number:** 9009350  
**Course Length:** Semester

**Course Description:**

Beginning with a broad overview of the Information Technology career cluster, students are introduced to the terminology, careers, history, required skills, and technologies associated with each pathway in the Information Technology career cluster. Additionally, they will be provided with opportunities to acquire and demonstrate beginning leadership skills.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate an understanding of the Network Systems career pathway. The student will be able to:
01.01	Define and use proper terminology associated with the Network Systems career pathway.
01.02	Describe some of the careers available in the Network Systems career pathway.
01.03	Identify common characteristics of the careers in the Network Systems career pathway.
01.04	Research the history of the Network Systems career pathway and describe how the associated careers have evolved and impacted society.
01.05	Identify skills required to successfully enter any career in the Network Systems career pathway.
01.06	Describe technologies associated in careers within the Network Systems career pathway.
02.0	Demonstrate an understanding of the Information Support and Services career pathway. The student will be able to:
02.01	Define and use proper terminology associated with the Information Support and Services career pathway.
02.02	Describe some of the careers available in the Information Support and Services career pathway.
02.03	Identify common characteristics of the careers in the Information Support and Services career pathway.
02.04	Research the history of the Information Support and Services career pathway and describe how the careers have evolved and impacted society.
02.05	Identify skills required to successfully enter any career in the Information Support and Services career pathway.

## CTE Standards and Benchmarks

02.06 Describe technologies associated in careers within the Information Support and Services career pathway.

03.0 Demonstrate an understanding of the Web and Digital Communications career pathway. The student will be able to:

03.01 Define and use proper terminology associated with the Web and Digital Communications career pathway.

03.02 Describe some of the careers available in the Web and Digital Communications career pathway.

03.03 Identify common characteristics of the careers in the Web and Digital Communications career pathway.

03.04 Research the history of the Web and Digital Communications career pathway and describe how the careers have evolved and impacted society.

03.05 Identify skills required to successfully enter any career in the Web and Digital Communications career pathway.

03.06 Describe technologies associated in careers within the Web and Digital Communications career pathway.

04.0 Demonstrate an understanding of the Programming and Software Development career pathway. The student will be able to:

04.01 Define and use proper terminology associated with the Programming and Software Development career pathway.

04.02 Describe some of the careers available in the Programming and Software Development career pathway.

04.03 Identify common characteristics of the careers in the Programming and Software Development career pathway.

04.04 Research the history of the Programming and Software Development career pathway and describe how the careers have evolved and impacted society.

04.05 Identify skills required to successfully enter any career in the Programming and Software Development career pathway.

04.06 Describe technologies associated in careers within the Programming and Software Development career pathway.

05.0 Apply leadership and communication skills. The student will be able to:

05.01 Discuss the establishment and history of the FBLA/BPA student organizations.

05.02 Identify the characteristics and responsibilities of organizational leaders.

05.03 Demonstrate parliamentary procedure skills during a meeting.

05.04 Participate on a committee which has an assigned task and report to the class.

05.05 Demonstrate effective communication skills through delivery of a speech, a slide presentation, or conducting a demonstration.

05.06 Use a computer to assist in the completion of a project related to the Information Technology career cluster.

06.0 Describe how information technology is used in the Information Technology career cluster. The student will be able to:

06.01 Identify information technology (IT) careers in the Information Technology career cluster, including the responsibilities, tasks and skills they require.

## CTE Standards and Benchmarks

06.02 Relate information technology project management concepts and terms to careers in the Information Technology career cluster.

06.03 Manage information technology components typically used in professions of the Information Technology career cluster.

06.04 Identify security-related ethical and legal IT issues faced by professionals in the Information Technology career cluster.

07.0 Use information technology tools. The student will be able to:

07.01 Identify the functions of web browsers, and use them to access the World Wide Web and other computer resources typically used in the Information Technology career cluster.

07.02 Use e-mail clients to send simple messages and files to other Internet users.

07.03 Demonstrate ways to communicate effectively using Internet technology.

07.04 Use different types of web search engines effectively to locate information relevant to the Information Technology career cluster.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

FBLA and BPA are the intercurricular career and technical student organizations providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.





Florida Department of Education  
Curriculum Framework

**Course Title:** Exploring Information Technology Careers and Career Planning  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Information Technology

**Secondary – Middle School**

Course Number	9009360
CIP Number	149009360M
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	FBLA BPA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Information Technology career cluster. The content includes but is not limited to terminology, careers, history, required skills, and technologies associated with pathways comprising the Information Technology career cluster. Reinforcement of academic skills occurs through classroom instruction and applied laboratory procedures.

Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
9009360	Exploring Information Technology Careers and Career Planning	BUS ED 1 @2 COMPU SCI 6 INFO TECH 7 G WEB DEV 7 G DIGI MEDIA 7 G CYBER TECH 7 G COMP PROG 7 G	Semester

**Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL’s need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

## **Standards**

After successfully completing this course, the student will be able to perform the following:

- 01.0 Demonstrate an understanding of the Network Systems career pathway.
- 02.0 Demonstrate an understanding of the Information Support and Services career pathway.
- 03.0 Demonstrate an understanding of the Web and Digital Communications career pathway.
- 04.0 Demonstrate an understanding of the Programming and Software Development career pathway.
- 05.0 Apply leadership and communication skills.
- 06.0 Describe how information technology is used in the Information Technology career cluster.
- 07.0 Use information technology tools.

### **Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes.**

- 08.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.
- 09.0 Develop skills to locate, evaluate, and interpret career information.
- 10.0 Identify and demonstrate processes for making short and long term goals.
- 11.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
- 12.0 Understand the relationship between educational achievement and career choices/postsecondary options.
- 13.0 Identify a career cluster and related pathways that match career and education goals.
- 14.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
- 15.0 Demonstrate knowledge of technology and its application in career fields/clusters.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Exploring Information Technology Careers and Career Planning  
**Course Number:** 9009360  
**Course Length:** Semester

**Course Description:**

Beginning with a broad overview of the Information Technology career cluster, students are introduced to the terminology, careers, history, required skills, and technologies associated with each pathway in the Information Technology career cluster. Additionally, they will be provided with opportunities to acquire and demonstrate beginning leadership skills.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate an understanding of the Network Systems career pathway. The student will be able to:
01.01	Define and use proper terminology associated with the Network Systems career pathway.
01.02	Describe some of the careers available in the Network Systems career pathway.
01.03	Identify common characteristics of the careers in the Network Systems career pathway.
01.04	Research the history of the Network Systems career pathway and describe how the associated careers have evolved and impacted society.
01.05	Identify skills required to successfully enter any career in the Network Systems career pathway.
01.06	Describe technologies associated in careers within the Network Systems career pathway.
02.0	Demonstrate an understanding of the Information Support and Services career pathway. The student will be able to:
02.01	Define and use proper terminology associated with the Information Support and Services career pathway.
02.02	Describe some of the careers available in the Information Support and Services career pathway.
02.03	Identify common characteristics of the careers in the Information Support and Services career pathway.
02.04	Research the history of the Information Support and Services career pathway and describe how the careers have evolved and impacted society.
02.05	Identify skills required to successfully enter any career in the Information Support and Services career pathway.

## CTE Standards and Benchmarks

02.06 Describe technologies associated in careers within the Information Support and Services career pathway.

03.0 Demonstrate an understanding of the Web and Digital Communications career pathway. The student will be able to:

03.01 Define and use proper terminology associated with the Web and Digital Communications career pathway.

03.02 Describe some of the careers available in the Web and Digital Communications career pathway.

03.03 Identify common characteristics of the careers in the Web and Digital Communications career pathway.

03.04 Research the history of the Web and Digital Communications career pathway and describe how the careers have evolved and impacted society.

03.05 Identify skills required to successfully enter any career in the Web and Digital Communications career pathway.

03.06 Describe technologies associated in careers within the Web and Digital Communications career pathway.

04.0 Demonstrate an understanding of the Programming and Software Development career pathway. The student will be able to:

04.01 Define and use proper terminology associated with the Programming and Software Development career pathway.

04.02 Describe some of the careers available in the Programming and Software Development career pathway.

04.03 Identify common characteristics of the careers in the Programming and Software Development career pathway.

04.04 Research the history of the Programming and Software Development career pathway and describe how the careers have evolved and impacted society.

04.05 Identify skills required to successfully enter any career in the Programming and Software Development career pathway.

04.06 Describe technologies associated in careers within the Programming and Software Development career pathway.

05.0 Apply leadership and communication skills. The student will be able to:

05.01 Discuss the establishment and history of the FBLA/BPA student organization.

05.02 Identify the characteristics and responsibilities of organizational leaders.

05.03 Demonstrate parliamentary procedure skills during a meeting.

05.04 Participate on a committee which has an assigned task and report to the class.

05.05 Demonstrate effective communication skills through delivery of a speech, a slide presentation, or conducting a demonstration.

05.06 Use a computer to assist in the completion of a project related to the Information Technology career cluster.

06.0 Describe how information technology is used in the Information Technology career cluster. The student will be able to:

06.01 Identify information technology (IT) careers in the Information Technology career cluster, including the responsibilities, tasks and skills they require.

## CTE Standards and Benchmarks

06.02 Relate information technology project management concepts and terms to careers in the Information Technology career cluster.

06.03 Manage information technology components typically used in professions of the Information Technology career cluster.

06.04 Identify security-related ethical and legal IT issues faced by professionals in the Information Technology career cluster.

07.0 Use information technology tools. The student will be able to:

07.01 Identify the functions of web browsers, and use them to access the World Wide Web and other computer resources typically used in the Information Technology career cluster.

07.02 Use e-mail clients to send simple messages and files to other Internet users.

07.03 Demonstrate ways to communicate effectively using Internet technology.

07.04 Use different types of web search engines effectively to locate information relevant to the Information Technology career cluster.

### **Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes:**

The student will be able to:

08.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.

09.0 Develop skills to locate, evaluate, and interpret career information.

10.0 Identify and demonstrate processes for making short and long term goals.

11.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.

12.0 Understand the relationship between educational achievement and career choices/postsecondary options.

13.0 Identify a career cluster and related pathways that match career and education goals.

14.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.

15.0 Demonstrate knowledge of technology and its application in career fields/clusters.

## Additional Information

### Laboratory Activities

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### Special Notes

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### Career Planning

**Effective July 1, 2019, per Section 1003.4156, Florida Statutes (F.S.), for students to meet middle grades promotion requirements, a Career and Education Planning course must be completed in either sixth, seventh, or eighth grade.** These courses should be taught integrating the eight career and education planning course standards. The MyCareerShines powered by Kuder® career planning system is available free of charge to all Florida middle and high schools to assist students in completing research-based career assessments, exploring career options and developing an online academic and career plan.

### Career and Technical Student Organization (CTSO)

FBLA and BPA are the intercurricular career and technical student organizations providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### Accommodations

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Program Title:** Information & Communications Technology (ICT) Essentials Careers and Career Planning  
**Program Type:** Orientation/Exploratory  
**Career Cluster:** Information Technology

**Secondary – Middle School**

Program Number	9009370
CIP Number	14900937MS
Grade Level	6-8
Standard Length	Year
Teacher Certification	Refer to the <b><u>Program Structure</u></b> section.
CTSO	FBLA BPA

**Purpose**

The purpose of this course is to provide students with the computer, digital, and information technology skills necessary for success in their future academic and occupational goals. In addition to fundamental computer information, the content includes but is not limited to digital technologies associated with web development, multimedia, word processing, spreadsheet, database, Internet communications, cybersecurity, and computer programming.

Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.



## **Program Structure**

This program is a planned sequence of instruction consisting of three courses.

To teach the courses listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
9009110	Information & Communications Technology (ICT) Essentials 1	BUS ED 1 @2	Year
9009120	Information & Communications Technology (ICT) Essentials 2	COMPU SCI 6	Year
9009140	Information & Communications Technology (ICT) Essentials Careers and Career Planning	INFO TECH 7G WEB DEV 7G	Year

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Identify computer components and their functions.
- 02.0 Demonstrate knowledge of different operating systems.
- 03.0 Demonstrate an understanding of Internet safety and ethics.
- 04.0 Demonstrate proficiency using the Internet to locate information.
- 05.0 Demonstrate proficiency in using word processing software.
- 06.0 Demonstrate proficiency in using presentation software.
- 07.0 Demonstrate proficiency in using graphics software.
- 08.0 Demonstrate appropriate use of email.
- 09.0 Demonstrate knowledge of safety and privacy practices for online communication.
- 10.0 Develop and apply fundamental spreadsheet skills.
- 11.0 Develop and apply database skills.
- 12.0 Demonstrate skill in using video editing software and equipment.
- 13.0 Demonstrate proficiency in using audio editing software (e.g., Audacity).
- 14.0 Demonstrate proficiency locating, gathering, and preparing textual, graphical, and image-based web content.
- 15.0 Use Web 2.0 or Internet-based collaborative technology (e.g., Wikis, Wimba, Moodle, Edmodo, Facebook, Schoology, Goggle) to facilitate a web development or research project.
- 16.0 Demonstrate an understanding of computer networks.
- 17.0 Demonstrate proficiency in web page development.
- 18.0 Demonstrate proficiency in game development.
- 19.0 Demonstrate proficiency in basic programming.

## **Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes:**

- 20.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.
- 21.0 Develop skills to locate, evaluate, and interpret career information.
- 22.0 Identify and demonstrate processes for making short and long term goals.
- 23.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
- 24.0 Understand the relationship between educational achievement and career choices/postsecondary options.
- 25.0 Identify a career cluster and related pathways that match career and education goals.
- 26.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
- 27.0 Demonstrate knowledge of technology and its application in career fields/clusters.

Florida Department of Education  
Student Performance Standards

**Course Title:** Information & Communications Technology (ICT) Essentials 1  
**Course Number:** 9009110  
**Course Length:** Year  
**Grade:** 6-8

**Course Description:**

This course introduces students to core concepts associated with computers and their use. The content includes hands-on opportunities to explore various software applications.

<b>CTE Standards and Benchmarks</b>	
01.0	Identify computer components and their functions. The student will be able to:
01.01	Describe what defines a computer and ways a computer can be used.
01.02	Identify the internal components of a computer (e.g., case, CPU, RAM, power supply, hard drive, motherboard, expansion cards, cabling).
01.03	Identify and know how to connect various computer input devices (e.g., mouse, keyboard, phone, camera, scanner, microphone, game controller, stylus, barcode reader finger print scanner, GPS device, touch pad, graphics tablet) and describe their use.
01.04	Identify and know how to connect various computer output devices (e.g., monitor, printer, projector, speakers, headphones) and describe their use.
01.05	Identify and know how to connect various storage devices (e.g., flash drive, external hard drive (SSD, network drive), memory card, discs, cloud).
02.0	Demonstrate knowledge of different operating systems. The student will be able to:
02.01	Compare and contrast various operating systems used in a computer and mobile devices (i.e., Windows, OS (Apple), UNIX, Android, iOS).
02.02	Describe and use conventional file naming conventions.
02.03	Demonstrate proficiency with file management tasks (e.g., folder creation, file creation, backup, copy, delete, open, save).
02.04	Be able to identify file types by extension (e.g., .doc, .txt, .wav, xls).
02.05	Demonstrate proficiency in using gadgets, icons, and taskbars and other pre-loaded operating system programs. (e.g., calculator, text editor, clock, volume controls, adding icons and shortcuts to taskbar and shortcut menus).

03.0	Demonstrate an understanding of Internet safety and ethics. The student will be able to:
03.01	Describe risks associated with social networking sites (e.g., FaceBook, Snapchat, Instagram, Twitter) and ways to reduce these risks.
03.02	Define “privacy” and relate it to the term “digital footprint.”
03.03	Practice cybersafety techniques to protect your personal information when using internet searches, email, chat rooms, and social network websites.
03.04	Describe cyberbullying, its impact on perpetrators and victims and ways to respond.
03.05	Describe risks associated with sexting (including legal issues, social consequences), and discuss methods for response, reporting, and prevention.
03.06	Describe risks associated with online gaming, and identify ways to reduce these risks.
03.07	Discuss issues related to downloading music or videos from the Internet, including unethical vs. illegal actions.
03.08	Compare and contrast rules for copyright and fair use, especially in relation to using online resources for school and educational purposes.
03.09	Distinguish between viruses and malware and discuss their impact on personal privacy and computer operation.
03.10	Describe common threats used to spread malware and viruses, including phishing, pharming, Trojans, spyware, malicious sites, “free” downloads.
03.11	Perform an antivirus scan on a computer system to check for viruses and malware.
03.12	Describe strong password practices.
03.13	Practice cyber safety techniques to protect your computer system when using Internet searches, email and social network websites.
03.14	Identify security issues related to mobile phones, including personal information compromised if a phone is lost or stolen.
03.15	Adhere to Acceptable Use Policies when accessing the Internet.
04.0	Demonstrate proficiency using the Internet to locate information. The student will be able to:
04.01	Identify and use web terminology (WWW, Web Browser, Internet, Web Server, Web Page, Address Bar, Hyperlinks, Navigation Buttons, Search Bar, Bookmarks/Favorites, Tab, Downloading, Plug-ins, Social Media Plug-ins).
04.02	Define Universal Resource Locators (URLs) and associated protocols (e.g., http, ftp, telnet, mailto).
04.03	Compare and contrast the types of Internet domains (e.g., .com, .org, .edu, .gov, .net, .mil).
04.04	Demonstrate proficiency using search engines, including Boolean search techniques.
04.05	Demonstrate proficiency using various web tools (e.g., downloading of files, transfer of files, telnet, PDF).

04.06	Compare and contrast the roles of web servers and web browsers.
04.07	Evaluate online information for relevance, credibility and quality using basic guidelines and indicators (e.g., authority, affiliation, purpose, bias, date).
04.08	Identify and apply copyright and fair use guidelines, and explain plagiarism as an ethical and legal violation.
04.09	Incorporate results from Internet searches into a research project (e.g., report, summary).
04.10	Download images as needed to support a research project, complying with copyright notices.
04.11	Properly cite Internet sources used to obtain information for a research project.
05.0	05.0 Demonstrate proficiency in using word processing software. The student will be able to:
05.01	Describe the general functions of word-processing software, including benefits for document creation, commonly used word-processing applications.
05.02	Define the term “cloud computing,” and explain benefits of creating and storing word-processing documents online.
05.03	List and describe common word processor interface tools and features.
05.04	Identify common keyboard shortcuts used in word processors, and explain the benefits of using shortcuts.
05.05	Format the page setup of a document, including margins, line spacing, indents, headers vs. footers, orientation.
05.06	Explain printing options in a word processor, including shrink-to-fit, 2-sided printing, and document orientation.
05.07	Copy, paste and move text within a document using mouse, menu and keyboard techniques.
05.08	Copy, paste and move text among multiple documents using mouse, menu and keyboard techniques.
05.09	Modify document view settings to display close-up, single and multiple pages.
05.10	Define the term “format” as it relates to word processing.
05.11	Format text using styles and font tools in a word processor.
05.12	Format a document using multi-level heading styles to enable an outline view (e.g., document map, navigation pane) in a word processor.
05.13	Create a table of contents using auto-generation tools and techniques in a word processor.
05.14	Insert page breaks in a document.
05.15	Create source citations and/or a bibliography in a document.

05.16	Insert a current date and time stamp into a document.
05.17	Use word processor tools to determine the number of pages, words and characters in a document.
05.18	Use spell check, grammar check, thesaurus, and find & replace to edit a document.
05.19	Insert and modify sizing of images in a word-processing document.
05.20	Position an image relative to text in a document, using various text-wrapping options (inline, square, tight).
05.21	Use word-processing drawing tools to create pre-formatted shapes that enhance a document's content.
05.22	Use word-processor drawing tools to create a visual representation of information (e.g., SmartArt), such as diagram, flow chart.
05.23	Apply a column layout to text in a document as appropriate for the content (e.g., article, newsletter).
05.24	Apply simple numbered and bulleted lists in a document to make content easier to read and understand.
05.25	Format numbered and bulleted lists to produce multi-level outline in a document.
05.26	Create a simple brochure and/or flyer using a template.
05.27	Create a table in a word-processing document, and enter and move data in the table.
05.28	Convert a body of text into a table structure in a document to make content easier to read and understand.
05.29	Define "collaboration" and explain ways that users can collaborate on word-processing documents, including installed software vs. cloud-based software, real-time collaboration, auto save, sharing tools, revision history.
05.30	Use the translation tool in a word processor to translate text in a document from English into another language, and vice versa.
05.31	Add comments to a document when reviewing and/or editing content.
05.32	Revise a document using editing tools (e.g., Track Changes) in a word processor, and accept or reject changes as appropriate.
06.0	Demonstrate proficiency in using presentation software. The student will be able to:
06.01	Describe presentation software and the ways it can be used.
06.02	Create and/or modify a "slide master" or template to apply a consistent appearance to a presentation.
06.03	Add and format titles, subtitles and talking points in presentation slides.
06.04	Add slide numbers and/or date and time codes to presentation slides.
06.05	Insert and format images/graphics in presentation slides.

06.06	Insert new or duplicate slides in a presentation.
06.07	Modify slide transitions in a presentation to include animation.
06.08	Insert and/or modify sound settings and timing in a presentation.
06.09	Modify the sequence of slides in a presentation.
06.10	Produce a presentation that includes text, graphics and images, and present it.
06.11	Modify a presentation's setup to repeat (i.e., loop) the presentation continuously.
07.0	Demonstrate proficiency in using graphics software. The student will be able to:
07.01	Describe graphics software and the ways it can be used.
07.02	Compare and contrast vector and raster images.
07.03	Identify image file formats for photos and graphical art (e.g., TIFF, BMP, PSD, EPS, JPEG, GIF, PNG), and specify which formats are supported on the Web.
07.04	Define terms related to the creation and display of graphical images (e.g., raster, vector, transparency, opacity, cropping, lasso, magic wand, marquee, canvas size, flattened, blur, dodge, sharpen, staking order, free transform, lossless, adjustments, move, clone, zoom, layers, filter, distort).
07.05	Create images with effects using different tools, brushes, adjustments and filters available in graphics software.
07.06	Copy and paste graphical images.
07.07	Modify shapes and colors in a graphical image.
07.08	Save and export a digital photograph in a format that provides the best image quality and file size for Internet use.
07.09	Create a progressive slide presentation using graphical design/layout template features (e.g., SmartArt) and animated transitions.
07.10	Use a portable digital video device (e.g., mobile phone, flip camera) or similar online tools to shoot video files, and transfer them to a computer.
07.11	Use video-editing software to produce a slide show or movie.
07.12	Create a multimedia presentation that incorporates edited video, animation, music and/or narration, and that applies principles of good design, smooth transitions and effective message delivery.
08.0	Demonstrate appropriate use of email. The student will be able to:
08.01	Define "email" and describe the functions and advantages as a form of communication.
08.02	Identify components of an email message.

08.03 Explain the format of an email address (i.e., user name, @ symbol, domain).

08.04 Attach a file to an email message.

08.05 Reply to and forward an email message to one or more addressees.

08.06 Use the Internet to perform email activities (i.e., web-based email).

08.07 Identify the appropriate use of email and demonstrate related email etiquette.

08.08 Perform email organization and cleanup (e.g., trash, flags, create folders).



**Florida Department of Education  
Student Performance Standards**

**Course Title:** Information & Communications Technology (ICT) Essentials 2  
**Course Number:** 9009120  
**Course Length:** Year  
**Grade:** 6-8

**Course Description:**

This course builds on the previous course and provides greater depth and more complex concepts and the skills/knowledge to master these concepts. Students will be provided opportunities to extend their skills with various software applications by creating more complex documents and using more complex functions.

<b>CTE Standards and Benchmarks</b>	
09.0	Demonstrate knowledge of safety and privacy practices for online communication. The student will be able to:
09.01	Define “privacy” and relate it to the term “digital footprint.”
09.02	Describe the risks of communicating on social networking sites (e.g. Facebook, Twitter, Instagram) and identify ways to communicate safely.
09.03	Distinguish between copyright infringement, plagiarism and fair use in an educational setting and in relation to school projects, especially with music and pictures.
09.04	Describe online communication practices that contribute to cyberbullying.
09.05	Practice safe online communication techniques with Internet searches, email, chat rooms, and other social network websites.
09.06	Follow an Acceptable Use Policy (AUP) when accessing the Internet.
10.0	Develop and apply fundamental spreadsheet skills. The student will be able to:
10.01	Define “spreadsheet” and describe ways it may be used.
10.02	Identify the parts of the spreadsheet display, including cells, columns and rows, cell references, cell range.
10.03	Create and navigate through multiple spreadsheets in a file.
10.04	Insert and format various types of data (text, numeric, date/time) in a spreadsheet cells.
10.05	Select multiple cells, including adjacent and non-adjacent ranges, using mouse and keyboard techniques.

## CTE Standards and Benchmarks

10.06	Cut, copy, and paste information from one or more cells to another part of the spreadsheet.
10.07	Use the undo and redo tools in a spreadsheet.
10.08	Apply and modify cell formatting for currency, date and percentage values.
10.09	Resize column width and row height in a spreadsheet.
10.10	Insert and delete columns and rows in a spreadsheet.
10.11	Merge and unmerge cells in a spreadsheet.
10.12	Apply shading and borders to a spreadsheet.
10.13	Describe the purpose of a table and how it relates to a spreadsheet.
10.14	Create and print a table and/or range that displays and sums the values of different data types.
10.15	Identify various types of charts (e.g., line, bar, pie, scatter) and common chart components (e.g., vertical axis, horizontal axis, legend), and explain when to use each chart type.
10.16	Create a chart from existing data and format the pieces (data set), change the background color, and add appropriate titles and a legend.
10.17	Use the auto sum function to calculate the values of multiple cells.
10.18	Insert common functions (SUM, AVERAGE, COUNT, MAX, MIN) and simple mathematical formulas which include addition, subtraction, multiplication, or division into a spreadsheet.
10.19	Distinguish between absolute and relative cell references in a spreadsheet.
10.20	Use the sort function to organize information numerically or alphabetically, including multiple levels of sorting.
10.21	Use the filter function to display spreadsheet data based on specific criteria.
10.22	Use conditional formatting to highlight text in a spreadsheet.
11.0	Develop and apply database skills. The student will be able to:
11.01	Define database and describe real-world uses (e.g., search engines, schools, drivers licenses & car registrations, hospitals, retail, law enforcement).
11.02	Distinguish between databases and spreadsheets.
11.03	Identify advantages of using a database instead of alternatives (e.g., spreadsheets, electronic documents, paper).
11.04	Define “Big Data” and describe how it is used in advertising.

## CTE Standards and Benchmarks

11.05	Identify the components of a database.
11.06	Distinguish between fields and records in a database.
11.07	Describe the basic data types and formats used in a database.
11.08	Distinguish between a table and a query.
11.09	Identify database keys, including primary and foreign.
11.10	Identify the relationships between tables in databases (i.e., one-to-one, one-to-many, many-to-many).
11.11	Distinguish between a query and a report.
11.12	Identify various report types.
11.13	Describe Structured Query Language (SQL) and discuss its use with databases.
11.14	Identify and compare various database applications, including Microsoft Access, MySQL, Oracle.
11.15	Create a database table that uses multiple data types.
11.16	Add, Edit, and Delete records from a database table.
11.17	Sort records in a database query or table.
11.18	Troubleshoot common database errors, including data type errors, query syntax errors.
11.19	Create a basic select query in one table.
11.20	Create an action query to manipulate data.
11.21	Create a query using primary and foreign keys.
11.22	Create a simple table join.
11.23	Import and export data from a database into a spreadsheet.
11.24	Create relevant reports from a database.
12.0	Demonstrate skill in using video editing software and equipment. The student will be able to:
12.01	Demonstrate ability to operate a video camera (e.g., Flip camera, cell phone).
12.02	Write storyboards to depict a one minute video segment.

## CTE Standards and Benchmarks

12.03	Determine appropriate lighting needs.
12.04	Create video shots sufficient to produce a one minute video.
12.05	Identify the functions and benefits of the digital video software interface.
12.06	Demonstrate ability to edit, cut, erase, and insert video.
12.07	Edit video as needed to achieve desired message and length.
12.08	Describe a first complete run-through of the video production process.
12.09	Characterize the qualities of effective communication in a completed video.
12.10	Upload finished video files to a website.
13.0	Demonstrate proficiency in using audio editing software (e.g., Audacity). The student will be able to:
13.01	Identify the functions and benefits of the audio editing software interface.
13.02	Demonstrate ability to edit, cut, erase, and insert audio.
13.03	Edit audio as needed to achieve desired message and length.
13.04	Prepare a 30 second to 1 minute audio commercial project.
14.0	Demonstrate proficiency locating, gathering, and preparing textual, graphical, and image-based web content. The student will be able to:
14.01	Define the elements of a webpage and what makes a good webpage.
14.02	Describe effective text and image content for webpages based on how visitors use the Web.
14.03	List guidelines and conventions for effective text on webpage.
14.04	Explain the inverted pyramid model of newspaper journalism and how it applies to Web content.
14.05	Use word-processing software to create effective written content for a webpage.
14.06	Create and/or edit message-driven image content for a webpage using graphics software.
14.07	Access graphics through various recourses (e.g., scanner, digital camera, CD-ROM, clipart, copyright-free online graphics).
14.08	Plan the content and design of a basic webpage using strategies for effective Web communication, including brainstorming, determining audience, choosing content and media types, using white space.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Information & Communications Technology (ICT) Essentials Careers and Career Planning  
**Course Number:** 9009140  
**Course Length:** Year  
**Grade:** 6-8

**Course Description:**

This course builds on the previous two courses and provides greater depth and more complex concepts and the skills/knowledge to master these concepts. In addition to working with network concepts, students will be provided opportunities to further extend their skills with various software applications by creating more complex documents and using more complex functions and technologies. Students will continue their exposure to computer programming and the creation of more complex computer programs. For the programming instruction, the use of Alice from Carnegie Mellon University is encouraged as it is a highly engaging program, includes instructional materials, and is available at no cost.

<b>CTE Standards and Benchmarks</b>	
15.0	Use Web 2.0 or Internet-based collaborative technology (e.g., Wikis, Wimba, Moodle, Edmodo, Facebook, Schoology, Goggle) to facilitate a web development or research project. The student will be able to:
15.01	Create and use a collaborative environment for communicating and sharing among project team members.
15.02	Create and use a social media page (e.g., Wikis, Wimba, Moodle, Edmodo, Facebook, Schoology, Goggle) to share and publish project components (e.g., content, images, graphics, videos) for gauging visitor reaction and obtaining feedback.
16.0	Demonstrate an understanding of computer networks. The student will be able to:
16.01	Define “network” and give examples of networks used at home, school, and work.
16.02	Compare types of networks, including LAN, WAN, MAN, VPN, intranet, extranet, the Internet.
16.03	Compare common network topologies, including bus, star, ring, mesh.
16.04	Compare various network models and their advantages, including client/server, mainframe/terminal, peer-to-peer.
16.05	Compare various methods and media for network connections, including broadband, wireless, Bluetooth, cellular, satellite.
16.06	Describe the functions of various network hardware devices, including NIC, hub, switch, router, bridge, gateway, access point.
16.07	Describe the purpose of protocols, and identify the protocols commonly used in networks, including TCP/IP, DHCP, DNS, HTTP, FTP, IMAP, POP, SMTP.
16.08	Describe the purpose and function of IP addressing and distinguish between public and private IP addresses.

## CTE Standards and Benchmarks

16.09 Describe the OSI reference model and its layers, including tracing the flow of data between two network nodes through the OSI layers.

17.0 Demonstrate proficiency in webpage development. The student will be able to:

17.01 Identify website domains, and relate a site's domain to its purpose.

17.02 Relate basic components of a webpage (e.g. color, space, written content, typography, images, links, multimedia) to aesthetic, functional and/or usable design principals.

17.03 Define aesthetic design, and explain how aesthetics can affect a visitors' perception of a website's information.

17.04 Demonstrate knowledge of color wheel concepts and effective use of color on a website.

17.05 Compare functional and usable design principles, and explain how usability can affect a website's success.

17.06 Critique the aesthetic design, usability and accessibility of sample websites.

17.07 Define multimedia, and identify its role in webpage interactivity.

17.08 Explain the primary steps of the website planning process.

17.09 Apply the website planning process to plan the design for basic website.

17.10 Build the site navigation scheme for a website.

17.11 Compare webpage creation using an HTML text editor to using a graphical user interface (GUI) editor.

17.12 Compare website creation using an online site builder, an offline site builder and a content management system (CMS).

17.13 Modify an existing webpage template to create an effective look and feel for a website.

17.14 Create a website using a template.

17.15 Define "HTML (Hypertext Markup Language)" and related terms, including tag vs. element, container vs. empty tag, block-level vs. inline element, attribute value, semantic tag.

17.16 Identify HTML elements required to create webpage structure.

17.17 Create webpages using basic HTML tags (e.g., headings, lists, character styles, text alignment, tables, comments).

17.18 Use HTML to create hyperlinks to external sites.

17.19 Use HTML to insert common image file formats into webpages, and use an image as a hyperlink.

## CTE Standards and Benchmarks

17.20 Explain Cascading Style Sheet (CSS) technology.

17.21 Apply CSS styles to an HTML page.

17.22 Create and/or edit animation files, and integrate them into a webpage.

17.23 Create and/or edit video files, and integrate them into a webpage.

17.24 Use Dynamic HTML (DHTML) to enhance webpage interactivity.

17.25 Create and use a wiki or similar tool for collaborating among project team members.

17.26 Create and use a social media page (e.g., Facebook, Wimba, Edmodo) and/or a blog to share content and collaborate on projects.

17.27 Review webpage content, verify copyright restrictions, and create meta-data before publishing a site to the internet.

17.28 Test webpages for display, functionality, and accessibility before publishing a site to the Internet.

17.29 Validate webpage code using W3C validation tools before publishing a site to the Internet.

17.30 Describe network issues relating to websites, including bandwidth, compression, streaming, web hosting.

17.31 Explain the purpose of File Transfer Protocol (FTP) in accessing information on the Internet.

17.32 Publish a website using FTP.

17.33 Describe website security methods, including secure server vs. unsecured served, SSL, SSH, encryption.

18.0 Demonstrate proficiency in game development. The student will be able to:

18.01 Describe the role of games in modern society (e.g., education, task training, social networking, therapy, recreation).

18.02 Identify various types of games (e.g., chance, skill, knowledge, role-playing, and storytelling).

18.03 Identify the steps of the design process for creating a game.

18.04 Apply the design process to solving a problem.

18.05 Analyze (deconstruct) existing games.

18.06 Identify the tools and skills needed for creating games.

18.07 Identify design criteria and constraints.

## CTE Standards and Benchmarks

18.08 Create storyboards to model a game's program flow and functionality.

18.09 Identify the programmer's role in creating games.

18.10 Identify common programming languages and applications used to create computer games.

18.11 Compare sequential, iteration (loop) and selection programming structures.

18.12 Define the term algorithm (i.e., a set of repeatable steps) and how it applies to problem solving.

18.13 Create an algorithm to solve a problem or complete a task.

18.14 Use pseudo-code to model a game program's flow.

18.15 Define logic errors and identify them in a game program or model.

18.16 Explain the types and uses of variables in game programming.

18.17 Describe basic Boolean concepts, including logical operators, order of precedence, expressions.

18.18 Describe the use of events, event handlers and functions in game programming.

18.19 Describe the use of parameters and arguments in game programming.

18.20 Describe the use of objects, classes and instances in game programming.

18.21 Describe the use of properties and methods with objects in game programming.

18.22 Write appropriate code to create a simple game using structured programming.

18.23 Test and evaluate the game program you created.

18.24 Modify the game program as needed to solve a problem.

18.25 Create an animated object (i.e., sprite) to be used in a game program.

18.26 Use programming code to control the behavior of an animated object (i.e., sprite) in a game program.

19.0 Demonstrate proficiency in basic programming. The student will be able to:

19.01 Define "programming" and discuss its role in computing.

19.02 Explain the binary representation of data and programs in computers.

19.03 Distinguish among the three types of programming languages (machine, assembly, high-level), and give examples.



## CTE Standards and Benchmarks

- |       |   |
|-------|---|
| 19.04 | Compare and contrast languages that are usually compiled (e.g., C++, Java) and interpreted (e.g., JavaScript, Python).  |
| 19.05 | Describe the structure of a simple program, and explain why sequencing is important.  |
| 19.06 | Write a program design document using pseudo-code that shows program flow.  |
| 19.07 | Explain strategies used in problem-solving, and relate them to computer programming.  |
| 19.08 | Define the term “algorithm,” and explain how it relates to problem-solving.   |
| 19.09 | Explain the three types of programming errors (i.e., logic, syntax, runtime), and describe the forms of testing that can be used to locate and debug errors.  |
| 19.10 | Solve a problem using logic by planning a strategy, designing and testing a hypothesis, and/or creating a set of step-by-step instructions to perform a task. |
| 19.11 | Define “structured programming” and discuss the advantages of this approach.  |
| 19.12 | Define the three main programming control structures used in structured programming: sequential, selection (decision), and iteration (loops).                 |
| 19.13 | Describe iterative programming structures (e.g., while, do/while) and how they are used in programming.   |
| 19.14 | Describe selection programming structures (e.g., if/then, else) and explain the logic used for if statements.   |
| 19.15 | Write a simple program in pseudo-code that uses structured programming to solve a problem.  |
| 19.16 | Explain the types and uses of variables in programming.   |
| 19.17 | Explain basic object-oriented concepts.   |
| 19.18 | Describe fundamental Boolean concepts, including Boolean algebra, operators, logic.   |
| 19.19 | Create animated objects using a high-level programming environment (e.g., Alice, Greenfoot) to control their behavior.  |
| 19.20 | Create a simple program that uses animated objects.   |
| 19.21 | Convert a simple program from pseudo-code into a common high-level programming environment (e.g. Alice, Greenfoot).   |
| 19.22 | Troubleshoot and debug errors in code.  |

**Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes:**

The student will be able to:

## CTE Standards and Benchmarks

20.0	Describe the influences that societal, economic, and technological changes have on employment trends and future training.
21.0	Develop skills to locate, evaluate, and interpret career information.
22.0	Identify and demonstrate processes for making short and long term goals.
23.0	Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
24.0	Understand the relationship between educational achievement and career choices/postsecondary options.
25.0	Identify a career cluster and related pathways that match career and education goals.
26.0	Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
27.0	Demonstrate knowledge of technology and its application in career fields/clusters.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills.

For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career Planning**

**Effective July 1, 2019, per Section 1003.4156, Florida Statutes (F.S.), for students to meet middle grades promotion requirements, a Career and Education Planning course must be completed in either sixth, seventh, or eighth grade.** These courses should be taught integrating the eight career and education planning course standards. The [MyCareerShines powered by Kuder®](#) career planning system is available free of charge to all Florida middle and high schools to assist students in completing research-based career assessments, exploring career options and developing an online academic and career plan.

### **Career and Technical Student Organization (CTSO)**

FBLA and BPA are the intercurricular career and technical student organizations providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

## **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Course Title:** Fundamentals of Networking and Information Support  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Information Technology

**Secondary – Middle School**

Course Number	9009400
CIP Number	149009400M
Grade Level	6-8
Standard Length	Year
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	FBLA BPA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Information Technology career cluster. The content includes but is not limited to foundational knowledge and skills related to computer networks and information support structure in the information technology industry.

Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Course/Program Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
9009400	Fundamentals of Networking and Information Support	BUS ED 1 @2 COMPU SCI 6 INFO TECH 7G CYBER TECH 7G	Year

## **Standards**

After successfully completing this course, the student will be able to perform the following:

- 01.0 Demonstrate knowledge, skill, and application of information systems to accomplish job objectives and enhance workplace performance.
- 02.0 Demonstrate comprehension and communication skills.
- 03.0 Use technology to enhance the effectiveness of communication skills.
- 04.0 Demonstrate an understanding of Internet safety and ethics.
- 05.0 Perform e-mail activities.
- 06.0 Demonstrate knowledge of different operating systems.
- 07.0 Demonstrate proficiency navigating the Internet and the intranet.
- 08.0 Develop an awareness of microprocessors and digital computers.
- 09.0 Demonstrate an understanding of the Open Systems Interface (OSI) model.
- 10.0 Identify computer components and their functions.
- 11.0 Demonstrate proficiency using computer networks.
- 12.0 Demonstrate an understanding of database design, structure, and operation.
- 13.0 Demonstrate a fundamental understanding of Structured Query Language (SQL).

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Fundamentals of Networking and Information Support  
**Course Number:** 9009400  
**Course Length:** Year

**Course Description:**

This course provides students with opportunities to acquire foundational knowledge and skills suitable for pursuing higher level programs of study related to the information technology industry.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate knowledge, skill, and application of information systems to accomplish job objectives and enhance workplace performance. The student will be able to:
01.01	Develop keyboarding skills to enter and manipulate text and data.
01.02	Describe and use current and emerging computer technology and software to perform personal and business related tasks.
01.03	Identify and describe communications and networking systems used in workplace environments.
01.04	Use reference materials such as on-line help, vendor bulletin boards, tutorials, and manuals available for application software.
01.05	Describe ethical issues and problems associated with computers and information systems.
02.0	Demonstrate comprehension and communication skills. The student will be able to:
02.01	Use listening, speaking, telecommunication and nonverbal skills and strategies to communicate effectively.
02.02	Organize ideas and communicate oral and written messages appropriate for information technology environments.
02.03	Collaborate with individuals and teams to complete tasks and solve information technology problems.
02.04	Demonstrate an awareness of project management concepts and tools (e.g., timelines, deadlines, resource allocation, time management, delegation of tasks, collaboration).
03.0	Use technology to enhance the effectiveness of communication skills. The student will be able to:
03.01	Use database, spreadsheet, presentation software, scheduling, and integrated software packages to enhance communication.
03.02	Respond to and utilize information derived from multiple sources (e.g., written documents, instructions, e-mail, voice mail) to solve problems and complete tasks.
04.0	Demonstrate an understanding of Internet safety and ethics. The student will be able to:



## CTE Standards and Benchmarks

04.01	Describe cyber-bullying and its impact on perpetrators and victims.
04.02	Differentiate between viruses and malware, specifically their sources, ploys, and impact on personal privacy and computer operation, and ways to avoid infection.
04.03	Describe risks associated with sexting, including related legal issues, social engineering aspects, prevention methods, and reporting of offenses.
04.04	Describe the risks associated with online gaming and ways to mitigate these risks.
04.05	Describe the ethics and copyright legalities of downloading music or videos from the Internet.
04.06	Describe risks associated with social networking sites (e.g., FaceBook, MySpace, Twitter) and ways to mitigate these risks.
04.07	Adhere to cyber safety practices with regard to conducting Internet searches, email, chat rooms, and other social network websites.
05.0	Perform email activities. The student will be able to:
05.01	Describe email capabilities and functions.
05.02	Identify components of an email message.
05.03	Identify the components of an email address.
05.04	Identify when to use different email options.
05.05	Attach a file to an email message.
05.06	Forward an email message.
05.07	Use an address book.
05.08	Reply to an email message.
05.09	Use the Internet to perform email activities.
05.10	Identify the appropriate use of email and demonstrate related email etiquette.
05.11	Identify when to include information from an original email message in a response.
05.12	Identify common problems associated with widespread use of email.
06.0	Demonstrate knowledge of different operating systems. The student will be able to:

## CTE Standards and Benchmarks

06.01 Identify operating system file naming conventions.

06.02 Demonstrate proficiency with file management and structure (e.g., folder creation, file creation, backup, copy, delete, open, save).

06.03 Demonstrate a working knowledge of standard file formats.

06.04 Explain the history and purpose of various operating systems (e.g., DOS, Windows, Mac, Linux).

07.0 Demonstrate proficiency navigating the Internet and the intranet. The student will be able to:

07.01 Identify and describe Web terminology.

07.02 Demonstrate proficiency in using the basic features of GUI browsers (e.g., setting bookmarks, basic configurations, email configurations, address book).

07.03 Define Universal Resource Locators (URLs) and associated protocols (e.g., .com, .org, .edu, .gov, .net, .mil).

07.04 Demonstrate proficiency using search engines (e.g., Yahoo!, Google).

07.05 Demonstrate proficiency downloading files.

07.06 Identify effective Boolean search strategies.

08.0 Develop an awareness of microprocessors and digital computers. The student will be able to:

08.01 Describe the evolution of the digital computer.

08.02 Explain the general architecture of a microcomputer system.

08.03 Explain the evolution of microprocessors.

08.04 Explain software hierarchy and its impact on microprocessors.

08.05 Explain the need for and use of peripherals.

08.06 Demonstrate proficiency using peripherals.

08.07 Identify the basic concepts of computer maintenance and upgrades.

08.08 Differentiate between diagnosing and troubleshooting.

09.0 Demonstrate an understanding of the Open Systems Interface (OSI) model. The student will be able to:

## CTE Standards and Benchmarks

09.01 Describe the evolution of OSI from its inception to the present and into the future.

09.02 Explain the interrelations of the seven layers of the Open Systems Interface (OSI) as it relates to hardware and software.

09.03 Describe the purpose of the OSI model and each of its layers.

09.04 Explain specific functions belonging to each OSI model layer.

09.05 Understand how two network nodes communicate through the OSI model.

09.06 Discuss the structure and purpose of data packets and frames.

09.07 Describe the two types of addressing covered by the OSI model.

10.0 Identify computer components and their functions. The student will be able to:

10.01 Identify the internal components of a computer (e.g., power supply, hard drive, mother board, I/O cards/ports, cabling).

10.02 Use common computer and programming terminology.

11.0 Demonstrate proficiency using computer networks. The student will be able to:

11.01 Define networking and describe the purpose of a network.

11.02 Describe the conceptual background of digital networks including terminology and basics.

11.03 Describe various types of networks and the advantages and disadvantages of each (e.g., peer to peer, client/server, mainframe/terminal).

11.04 Describe the use, advantages, and disadvantages of various network media (e.g., thinnet cable, coaxial), twisted pair (cat 5), fiber optics).

11.05 Describe the function of various network devices (e.g., hub, switched hub or switch, router bridge, gateway, access points).

11.06 Describe how network devices are identified (i.e., IP addressing).

11.07 Explain the protocols commonly used in a network environment.

11.08 Differentiate between public and private IP addresses.

11.09 Describe the common ports and corresponding protocols used in a network.

11.10 Describe the difference between the Internet and intranet.

## CTE Standards and Benchmarks

11.11 Discuss the differences between Local Area Network (LAN), Wide Area Network (WAN), Metropolitan Area Network (MAN), and Virtual Private Network (VPN).

12.0 Demonstrate an understanding of database design, structure, and operation. The student will be able to:

12.01 Describe a relational database and its key elements.

12.02 Describe the Entity Relationship Model (ERM).

12.03 Differentiate between one-to-many, many-to-many and one-to-one relationships.

12.04 Define referential integrity and describe its importance to managing information.

13.0 Demonstrate a fundamental understanding of Structured Query Language (SQL). The student will be able to:

13.01 List the capabilities of SQL SELECT statements.

13.02 Execute basic SQL statements, including SELECT, INSERT, and UPDATE.

13.03 Apply the concatenation operator to link columns to other columns, arithmetic expressions, or constant values to create a character expression.

13.04 Use the AS clause to define column aliases to rename columns in the query result.

13.05 Use SQL to display the structure of a table.

13.06 Apply SQL syntax to restrict the rows returned from a query.

13.07 Demonstrate application of the WHERE clause syntax.

13.08 Apply the proper comparison operator to return a desired result.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

FBLA and BPA the intercurricular career and technical student organizations providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.



Florida Department of Education  
Curriculum Framework

**Course Title:** Fundamentals of Web and Software Development  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Information Technology

**Secondary – Middle School**

Course Number	9009500
CIP Number	149009500M
Grade Level	6-8
Standard Length	Year
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	FBLA BPA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Information Technology career cluster. The content includes but is not limited to foundational knowledge and skills related to web and software development in the information technology industry.

Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

## Course Structure

To teach the course listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
9009500	Fundamentals of Web and Software Development	BUS ED 1 @2 COMPU SCI 6 INFO TECH 7G WEB DEV 7G COMP PROG 7G	Year



## **Standards**

After successfully completing this course, the student will be able to perform the following:

- 01.0 Demonstrate knowledge, skill, and application of information systems to accomplish job objectives and enhance workplace performance.
- 02.0 Demonstrate comprehension and communication skills.
- 03.0 Use technology to enhance the effectiveness of communication skills.
- 04.0 Demonstrate an understanding of Internet safety and ethics.
- 05.0 Perform e-mail activities.
- 06.0 Demonstrate knowledge of different operating systems.
- 07.0 Demonstrate proficiency navigating the Internet and the intranet.
- 08.0 Demonstrate proficiency using HTML commands.
- 09.0 Demonstrate proficiency in webpage design.
- 10.0 Demonstrate proficiency using specialized web design software.
- 11.0 Develop an awareness of programming languages.
- 12.0 Demonstrate proficiency using common software applications.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Fundamentals of Web and Software Development  
**Course Number:** 9009500  
**Course Length:** Year

**Course Description:**

This course provides students with opportunities to acquire foundational knowledge and skills suitable for pursuing higher level programs of study related to the information technology industry.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate knowledge, skill, and application of information systems to accomplish job objectives and enhance workplace performance. The student will be able to:
01.01	Develop keyboarding skills to enter and manipulate text and data.
01.02	Describe and use current and emerging computer technology and software to perform personal and business related tasks.
01.03	Identify and describe communications and networking systems used in workplace environments.
01.04	Use reference materials such as on-line help, vendor bulletin boards, tutorials, and manuals available for application software.
01.05	Describe ethical issues and problems associated with computers and information systems.
02.0	Demonstrate comprehension and communication. The student will be able to:
02.01	Use listening, speaking, telecommunication and nonverbal skills and strategies to communicate effectively.
02.02	Organize ideas and communicate oral and written messages appropriate for information technology environments.
02.03	Collaborate with individuals and teams to complete tasks and solve information technology problems.
02.04	Demonstrate an awareness of project management concepts and tools (e.g., timelines, deadlines, resource allocation, time management, delegation of tasks, collaboration).
03.0	Use technology to enhance the effectiveness of communication skills. The student will be able to:
03.01	Use database, spreadsheet, presentation software, scheduling, and integrated software packages to enhance communication.
03.02	Respond to and utilize information derived from multiple sources (e.g., written documents, instructions, email, voice mail) to solve problems and complete tasks.
04.0	Demonstrate an understanding of Internet safety and ethics. The student will be able to:

## CTE Standards and Benchmarks

04.01	Describe cyber-bullying and its impact on perpetrators and victims.
04.02	Differentiate between viruses and malware, specifically their sources, ploys, and impact on personal privacy and computer operation, and ways to avoid infection.
04.03	Describe risks associated with sexting, including related legal issues, social engineering aspects, prevention methods, and reporting of offenses.
04.04	Describe the risks associated with online gaming and ways to mitigate these risks.
04.05	Describe the ethics and copyright legalities of downloading music or videos from the Internet.
04.06	Describe risks associated with social networking sites (e.g., FaceBook, MySpace, Twitter) and ways to mitigate these risks.
04.07	Adhere to cyber safety practices with regard to conducting Internet searches, email, chat rooms, and other social network websites.
05.0	Perform email activities. The student will be able to:
05.01	Describe email capabilities and functions.
05.02	Identify components of an email message.
05.03	Identify the components of an email address.
05.04	Identify when to use different email options.
05.05	Attach a file to an email message.
05.06	Forward an email message.
05.07	Use an address book.
05.08	Reply to an email message.
05.09	Use the Internet to perform email activities.
05.10	Identify the appropriate use of email and demonstrate related email etiquette.
05.11	Identify when to include information from an original email message in a response.
05.12	Identify common problems associated with widespread use of email.
06.0	Demonstrate knowledge of different operating systems. The student will be able to:
06.01	Identify operating system file naming conventions.
06.02	Demonstrate proficiency with file management and structure (e.g., folder creation, file creation, backup, copy, delete, open, save).
06.03	Demonstrate a working knowledge of standard file formats.
06.04	Explain the history and purpose of various operating systems (e.g., DOS, Windows, Mac, Linux).

## CTE Standards and Benchmarks

07.0 Demonstrate proficiency navigating the Internet and the intranet. The student will be able to:

07.01 Identify and describe Web terminology.

07.02 Demonstrate proficiency in using the basic features of GUI browsers (e.g., setting bookmarks, basic configurations, email configurations, address book).

07.03 Define Universal Resource Locators (URLs) and associated protocols (e.g., .com, .org, .edu, .gov, .net, .mil).

07.04 Demonstrate proficiency using search engines (e.g., Yahoo!, Google).

07.05 Demonstrate proficiency downloading files.

07.06 Identify effective Boolean search strategies.

08.0 Demonstrate proficiency using HTML commands. The student will be able to:

08.01 Identify elements of a Web page.

08.02 Define basic HTML terminology.

08.03 Analyze HTML source code developed by others.

08.04 Create Web pages using basic HTML tags (e.g., links, lists, character styles, text alignment, tables).

08.05 Edit and test HTML documents for accuracy and validity.

08.06 Create a website using basic functions of a WYSIWYG or GUI editor.

08.07 Use basic functions of HTML, DHTML, and XML editors and converters.

08.08 Enhance web pages through the addition of images and graphics including animation.

09.0 Demonstrate proficiency in webpage design. The student will be able to:

09.01 Demonstrate an understanding of acceptable webpage design.

09.02 Design a website using storyboarding techniques.

09.03 Describe and apply color theory as it applies to webpage design (e.g., background and text color).

09.04 Access and digitize graphics through various resources (e.g., scanner, digital cameras, on-line graphics, clipart, CD-ROMs).

09.05 Use image design software to create and edit images.

09.06 Demonstrate proficiency in publishing to the Internet.

## CTE Standards and Benchmarks

10.0 Demonstrate proficiency using specialized web design software. The student will be able to:

10.01 Compare and contrast various specialized web design software (e.g., Dreamweaver, Flash).

10.02 Demonstrate proficiency using various specialized web design software (e.g., Dreamweaver, Flash).

11.0 Develop an awareness of programming languages. The student will be able to:

11.01 Explain the history of programming languages.

11.02 Explain the need for and use of compilers.

11.03 Explain how compilers work.

11.04 Identify the three types of programming design approaches (e.g., top-down, structured, object-oriented).

11.05 Compare the various types or classes of programming languages (e.g., compiled, interpretive).

11.06 Differentiate among source code, machine code, interpreters, and compilers.

11.07 Characterize the major categories of programming languages and how they are used.

11.08 Create a model flowchart for a computer program.

11.09 Describe the stages in the software development life cycle.

12.0 Demonstrate proficiency using common software applications. The student will be able to:

12.01 Compare and contrast the appropriate use of various software applications (e.g., word processing, desktop publishing, graphics design, web browser, e-mail, presentation, database).

12.02 Demonstrate proficiency in the use of various software applications (e.g., word processing, desktop publishing, graphics design, web browser, e-mail, presentation, database).

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

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Florida Department of Education  
Curriculum Framework

**Program Title:** Digital Discoveries in Society  
**Program Type:** Orientation/Exploratory  
**Career Cluster:** Information Technology

**Secondary – Middle School**

Program Number	9009600
CIP Number	0511020111
Grade Level	6-8
Standard Length	Year
Teacher Certification	Refer to the <b><u>Program Structure</u></b> section.
CTSO	FBLA BPA

**Purpose**

Digital Discoveries in Society is an introductory computer science course that empowers students to create authentic artifacts and engage with computer science as a medium for creativity, communication, problem solving, and fun. In addition to fundamental computer information, the content includes but is not limited to digital technologies associated with problem solving, computer components, internet safety and ethics, web development, animations and games, basic programming techniques, and physical computing. The first six units in the course encourages students to see where computer science exists around them and how they can engage with it as a tool for exploration and expression. Units seven and eight encourage the students to look outward and explore the impact of computer science on society.

Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.



## **Program Structure**

This program is a planned year long course.

To teach the courses listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
9009600	Digital Discoveries in Society	BUS ED 1 @2 COMPU SCI 6 INFO TECH 7G WEB DEV 7G	Year

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate an understanding of the problem solving process.
- 02.0 Identify computer components and their functions.
- 03.0 Demonstrate an understanding of internet safety and ethics.
- 04.0 Demonstrate proficiency using the Internet to locate information.
- 05.0 Demonstrate proficiency in web page development.
- 06.0 Demonstrate proficiency in animation and games.
- 07.0 Demonstrate proficiency in basic programming.
- 08.0 Demonstrate proficiency in physical computing with hardware devices.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Digital Discoveries in Society  
**Course Number:** 9009600  
**Course Length:** Year  
**Grade:** 6-8

**Course Description:**

Digital Discoveries in Society is an introductory computer science course that empowers students to create authentic artifacts and engage with computer science as a medium for creativity, communication, problem solving, and fun. In addition to fundamental computer information, the content includes but is not limited to digital technologies associated with problem solving, computer components, internet safety and ethics, web development, animations and games, basic programming techniques, and physical computing. The first six units in the course encourages students to see where computer science exists around them and how they can engage with it as a tool for exploration and expression. Units seven and eight encourage the students to look outward and explore the impact of computer science on society.

This course may be used with free online coding tools from Scratch.mit.edu, Code.org, Microsoft Makecode, CSfirst.withgoogle.com, CodeAcademy, Khan Academy, Code Combat, Lightbot, Pixlr, etc.

For the last unit on physical computing it is recommended that students have access to one of the following to work on in pairs or in small groups: Circuit Playgrounds, Micro:bits, Raspberry Pi’s, Arduino boards, etc.

CTE Standards and Benchmarks	
01.0	Demonstrate and understanding of the problem solving process. The student will be able to:
01.01	Identify and explain the four parts of the problem solving process (Define, Prepare, Try, and Reflect).
01.02	Describe the strategies and processes to become a more effective problem solver.
01.03	Explain how computers help people to solve problems.
01.04	Compare and contrast how people and computers approach problems differently.
01.05	Explain what a computer needs from people in order to solve problems effectively.
02.0	Identify computer components and their functions. The student will be able to:
02.01	Define "computer," and explain why it is important to have a basic understanding of how computers work.
02.02	Describe the four functions of the computing cycle (i.e., input, processing, output, storage).

02.03	Identify the internal components of a computer (e.g., case, CPU, RAM, ROM, power supply, hard drive, motherboard, expansion cards, cabling).
02.04	Identify and know how to connect various computer input devices (e.g., mouse, keyboard, phone, camera, scanner, microphone, game controller, stylus, barcode reader, finger print scanner, GPS device, touch pad, graphics tablet) and describe their use.
02.05	Identify and know how to connect various computer output devices (e.g., monitor, printer, projector, speakers, and headphones) and describe their use.
02.06	Identify and know how to connect various storage devices (e.g., flash drive, external hard drive (SSD, network drive), memory card, discs, and cloud).
02.07	Identify various computer connection ports, including USB, FireWire, parallel, serial, Ethernet (RJ-45), RJ-11, HDMI, audio.
02.08	Illustrate and correctly label the parts of a computer system.
02.09	Describe how people use computers at home, school and work.
02.10	Define the term "cloud storage" and explain the advantages and disadvantages of using cloud storage.
03.0	Demonstrate an understanding of Internet safety and ethics. The student will be able to:
03.01	Describe strong password practices and explain why such practices are needed at school, home and work.
03.02	Define "privacy" and relate it to the term "digital footprint."
03.03	Practice cyber safety techniques to protect your personal information when using internet searches, email, chat rooms, and social network websites.
03.04	Describe cyberbullying, its impact on perpetrators and victims and ways to respond.
03.05	Describe risks associated with online gaming, and identify ways to reduce these risks.
03.06	Discuss issues related to downloading music, videos, or images from the Internet, including unethical vs. illegal actions.
03.07	Compare and contrast rules for copyright and fair use, especially in relation to using online resources for school and educational purposes.
03.08	Properly cite sources used for images and information obtained from the internet for projects and research
03.09	Review your district/school Acceptable Use Policies when accessing the Internet and adhere to the AUP while using school equipment, internet and software.
04.0	Demonstrate proficiency using the Internet to locate information. The student will be able to:
04.01	Identify and use web terminology (WWW, Web Browser, Internet, Web Server, Web Page, Address Bar, Hyperlinks, Navigation Buttons, Search Bar, Bookmarks/Favorites, Tab, Downloading, Plug-ins, and Social Media Plug-ins).
04.02	Define Universal Resource Locators (URLs) and associated protocols (e.g., http, https, ftp, telnet, mailto).
04.03	Compare and contrast the types of Internet domains (e.g., .com, .org, .edu, .gov, .net, .mil).

04.04	Demonstrate proficiency using search engines, including Boolean and other advanced search techniques.
04.05	Demonstrate proficiency in uploading and downloading files, images, documents and music for class projects and collaboration.
04.06	Compare and contrast the roles of web browsers and search engines.
04.07	Evaluate online information for relevance, credibility and quality using basic guidelines and indicators (e.g. authority, affiliation, purpose, bias, date).
04.08	Distinguish between copyright infringement, plagiarism and fair use in an educational setting and in relation to school projects, especially with music and pictures.
04.09	Identify and apply copyright and fair use guidelines, and explain plagiarism as an ethical and legal violation.
04.10	Incorporate results from Internet searches into a research project (e.g., report, summary, website design, app creation, etc.).
04.11	Download images as needed to support a research project, complying with copyright notices.
04.12	Properly cite internet sources used to obtain information for a research project.
04.13	Explain what creative commons licensing is and why it is important to web designers and programmers.
05.0	Demonstrate proficiency in web page development. The student will be able to:
05.01	Identify website domains, and relate a site's domain name and domain category to its purpose (.gov, .mil, .org, .com, etc.)
05.02	Relate basic components of a webpage (e.g. color, space, written content, typography, images, links, multimedia) to aesthetic, functional and/or usable design principals.
05.03	Define aesthetic design, and explain how aesthetics can affect a visitors' perception of a website's information.
05.04	Demonstrate knowledge of color wheel concepts and effective use of color on a website.
05.05	Explain the CARP principles of design (contrast, alignment, repetition, proximity), and give an example of how each principle is used in designing aesthetic layouts.
05.06	Critique the aesthetic design, usability and accessibility of sample websites.
05.07	Define multimedia, and identify its role in webpage interactivity.
05.08	Explain the primary steps of the website planning process.
05.09	Apply the website planning process to plan the design for basic website.
05.10	Build the site navigation scheme for a website.
05.11	Define "HTML (Hypertext Markup Language)" and related terms, including tag vs. element, container vs. empty tag, block-level vs. inline element, attribute value, semantic tag.
05.12	Identify HTML elements required to create webpage structure (!DOCTYPE, html, head, title, body)

05.13	Create webpages using basic HTML tags (e.g., headings, lists, character styles, text alignment, tables, and comments).
05.14	Use HTML to create hyperlinks to multiple pages in a website or to outside sources.
05.15	Use HTML to insert common image file formats into webpages, and use an image as a hyperlink.
05.16	Explain Cascading Style Sheet (CSS) technology.
05.17	Apply CSS styles to an HTML page.
05.18	Review webpage content, verify copyright restrictions, and create meta-data before publishing a site to the internet.
05.19	Test webpages for display, functionality, and accessibility before publishing a site to the Internet.
05.20	Validate webpage code using W3C validation tools before publishing a site to the Internet.
05.21	Describe network issues relating to websites, including bandwidth, compression, streaming, web hosting.
05.22	Explain the purpose of File Transfer Protocol (FTP) in accessing information on the Internet.
05.23	Design and create a personal website using HTML and CSS with at least three different pages that are hyperlinked to the homepage.
05.24	Publish a website.
06.0	Demonstrate proficiency in game development. The student will be able to:
06.01	Describe the role of games in modern society (e.g., education, task training, social networking, therapy, recreation).
06.02	Identify various types of games (e.g., chance, skill, knowledge, role-playing, and storytelling).
06.03	Identify the steps of the design process for creating a game.
06.04	Apply the design process to solving a problem.
06.05	Analyze (deconstruct) existing games.
06.06	Identify the tools and skills needed for creating games.
06.07	Identify design criteria and constraints.
06.08	Create storyboards to model a game's program flow and functionality.
06.09	Identify the programmer's role in creating games.
06.10	Identify common programming languages and applications used to create computer games.
06.11	Compare sequential, iteration (loop) and selection programming structures.

06.12	Define the term algorithm (i.e., a set of repeatable steps) and how it applies to problem solving.
06.13	Create an algorithm to solve a problem or complete a task.
06.14	Use pseudo-code to model a game program's flow.
06.15	Define logic errors and identify them in a game program or model.
06.16	Explain the types and uses of variables in game programming.
06.17	Describe basic Boolean concepts, including logical operators, order of precedence, expressions.
06.18	Describe the use of events, event handlers and functions in game programming.
06.19	Describe the use of parameters and arguments in game programming.
06.20	Describe the use of objects, classes and instances in game programming.
06.21	Describe the use of properties and methods with objects in game programming.
06.22	Write appropriate code to create a simple game using structured programming.
06.23	Test and evaluate the game program you created.
06.24	Modify the game program as needed to solve a problem.
06.25	Create an animated object (i.e., sprite) to be used in a game program.
06.26	Use programming code to control the behavior of an animated object (i.e., sprite) in a game program.
07.0	Demonstrate proficiency in basic programming. The student will be able to:
07.01	Define "programming" and discuss its role in computing.
07.02	Explain the binary representation of data and programs in computers.
07.03	Distinguish among the three types of programming languages (machine, assembly, high-level), and give examples.
07.04	Compare and contrast languages that are usually compiled (e.g., C++, Java) and interpreted (e.g., JavaScript, Python).
07.05	Describe the structure of a simple program, and explain why sequencing is important.
07.06	Write a program design document using pseudo-code that shows program flow.
07.07	Define the term "algorithm," and explain how it relates to problem-solving.
07.08	Explain the three types of programming errors (i.e., logic, syntax, runtime), and describe the forms of testing that can be used to locate and debug errors.
07.09	Solve a problem using logic by planning a strategy, designing and testing a hypothesis, and/or creating a set of step-by-step instructions to perform a task.

07.10	Define “structured programming” and discuss the advantages of this approach.
07.11	Define the three main programming control structures used in structured programming: sequential, selection (decision), and iteration (loops).
07.12	Describe iterative programming structures (e.g., while, do/while) and how they are used in programming.
07.13	Describe selection programming structures (e.g., if/then, else) and explain the logic used for if statements.
07.14	Write a simple program in pseudo-code that uses structured programming to solve a problem.
07.15	Explain the types and uses of variables in programming.
07.16	Describe fundamental Boolean concepts, including Boolean algebra, operators, and logic.
07.17	Convert a simple program from pseudo-code into a common high-level programming environment.
07.18	Troubleshoot and debug errors in code.
07.19	Define “programming” and discuss its role in computing.
08.0	Demonstrate proficiency in physical computing with hardware devices. The student will be able to:
08.01	View hardware as an approachable and fun topic in computing.
08.02	Believe that anyone can contribute to innovation.
08.03	Use physical computing (aka: Microbits, Circuit Playgrounds, Arduino, Lilypads, Makey-Makey, Piper Kits, Raspberry Pi’s, etc.) to solve problems.
08.04	Determine how computers sense and respond to their environment.
08.05	Determine the kind of information that can be communicated with hardware outputs.
08.06	Analyze how simple hardware can be used to develop innovative new products.
08.07	Define prototype in relation to digital design.
08.08	Create a prototype of an original game that can be played using a physical computing device.



## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

FBLA and BPA are the intercurricular career and technical student organizations providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.



Florida Department of Education  
Curriculum Framework

**Course Title:** Orientation to Career and Technical Occupations and Career Planning  
**Course Type:** Orientation/Exploratory and Career Planning  
**Career Cluster:** Diversified Education

**Secondary – Middle School**

Course Number	9100110
CIP Number	10989999CE
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b>Course Structure</b> section.
CTSO	BPA, DECA, FBLA-PBL, FCCLA, FFA, FL-TSA, FPSA, HOSA, SkillsUSA

**Purpose**

The purpose of this course is to give students an opportunity to apply knowledge and skills related to the area of Diversified Education.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
9100110	Orientation to Career and Technical Occupations and Career Planning	ANY FIELD WHEN CERT REFLECTS BACHELOR OR HIGHER ANY VOCATIONAL FIELD OR COVERAGE	Semester

**Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Identify the resources and technology for career planning.
- 02.0 Identify available career and technical employment opportunities.
- 03.0 Identify components of self-understanding.
- 04.0 Define and demonstrate cognitive skills.
- 05.0 Identify and apply a variety of learning techniques and styles.
- 06.0 Develop effective communication skills.
- 07.0 Demonstrate leadership skills.
- 08.0 Demonstrate workplace readiness skills.

Listed below are the eight career and education planning course standards.

- 09.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.
- 10.0 Develop skills to locate, evaluate, and interpret career information.
- 11.0 Identify and demonstrate processes for making short and long term goals.
- 12.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
- 13.0 Understand the relationship between educational achievement and career choices/postsecondary options.
- 14.0 Identify a career cluster and related pathways through an interest assessment that match career and education goals.
- 15.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
- 16.0 Demonstrate knowledge of technology and its application in career fields/clusters.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Orientation to Career and Technical Occupations  
**Course Number:** 9100110  
**Course Length:** Semester

**Course Description:**

The purpose of this program is to give students an opportunity to apply knowledge and skills related to the area of Diversified Education.

<b>CTE Standards and Benchmarks</b>	
01.0	Identify the resources and technology for career planning. The student will be able to:
01.01	Using a variety of resources, assess personal abilities, temperaments, interests, values, experiences, personality traits, academic abilities, and work preferences.
01.02	Identify non-traditional career options.
01.03	Identify high skill/high wage occupations requiring specialized training with growth potential for future employment.
01.04	Using assessments and inventories, match results to a career goal.
01.05	Describe the steps involved in planning for education, career, and life goals.
01.06	Develop a career plan to include training/education requirements, tasks/responsibilities, employment prospects, and career/advancement opportunities.
01.07	Discuss advantages/disadvantages of entering the military, attending a trade/technical school, and/or enrolling at a community college/four-year university.
01.08	Begin creating a portfolio of documents for job placement.
02.0	Identify available career and technical employment opportunities. The student will be able to:
02.01	Identify employment opportunities in the area of Agriscience and Natural Resources.
02.02	Identify employment opportunities in the area of Construction.
02.03	Identify employment opportunities in the area of Manufacturing.
02.04	Identify employment opportunities in the area of Logistics, Transportation, and Distribution Services.

## CTE Standards and Benchmarks

02.05 Identify employment opportunities in the area of Information Technology Services.

02.06 Identify employment opportunities in the area of Wholesale/Retail Sales and Services.

02.07 Identify employment opportunities in the area of Financial Services.

02.08 Identify employment opportunities in the area of Hospitality and Tourism.

02.09 Identify employment opportunities in the area of Business and Administrative Services.

02.10 Identify employment opportunities in the area of Health Services.

02.11 Identify employment opportunities in the area of Human Services.

02.12 Identify employment opportunities in the area of Arts and Communication Services.

02.13 Identify employment opportunities in the area of Legal and Protective Services.

02.14 Identify employment opportunities in the area of Scientific, Engineering, and Technical Services.

03.0 Identify components of self-understanding. The student will be able to:

03.01 Explain how values are acquired and changed.

03.02 Explain how work is affected by values.

03.03 Identify how individuals from diverse backgrounds offer unique contributions.

03.04 Discuss methods for adapting learning styles to the method of instructional delivery.

04.0 Define and demonstrate cognitive skills. The student will be able to:

04.01 Describe importance of time management to complete tasks accurately and on time.

04.02 Outline strategies for effective time management.

04.03 Describe role and relationship between values, aptitudes, abilities, and goal setting and attainment of academic and occupational skills.

04.04 Set personal goals and develop a plan of action to achieve those goals.

04.05 Identify problems and consequences of meeting goals.

04.06 Describe ways to deal with success and failure.

## CTE Standards and Benchmarks

04.07 Exhibit awareness of and respect for others.

04.08 Demonstrate ways to improve test-taking skills, including preparing for standardized tests.

04.09 Explain the steps in decision making.

04.10 Identify the process involved in problem solving.

04.11 Develop an action plan for solving problems and making decisions.

04.12 Identify strategies for building self-esteem and enhancing decision-making skills.

04.13 Demonstrate knowledge of the planning process.

04.14 Demonstrate ability to think creatively and generate new ideas.

04.15 Demonstrate the ability to conduct a systematic analysis of personal strengths and weaknesses.

05.0 Identify and apply a variety of learning techniques and styles. The student will be able to:

05.01 Describe the advantages of good note taking/outlining and listening skills.

05.02 Explain and apply a variety of strategies for knowledge retention of specific data, etc.

05.03 Describe and apply study techniques.

05.04 Discuss and employ a variety of test-taking strategies.

05.05 Discuss the seven intelligences as identified by Howard Gardner (musical, bodily-kinesthetic, logical-mathematical, linguistic, spatial, interpersonal, and intrapersonal).

05.06 Discuss styles of learning as identified by Anthony Gregorc (concrete sequential, abstract sequential, abstract random, concrete random).

05.07 Identify learning style as auditory language, visual language, auditory numerical, visual numerical, and/or auditory-visual-kinesthetic combination.

06.0 Develop effective communication skills. The student will be able to:

06.01 Identify the effectiveness of assertive, aggressive, and passive communication.

06.02 Dramatize the impact of non-verbal behavior on communication.

06.03 Develop ways to provide effective feedback and deal with criticism.

06.04 Describe the importance of the proper use of grammar, vocabulary, diction, and etiquette.



## CTE Standards and Benchmarks

06.05 Demonstrate ability to communicate in a multicultural setting.

06.06 Demonstrate ability to listen to, follow, and provide directions.

06.07 Participate in group and committee discussions to reach group consensus.

06.08 Write, edit, and revise a communication so that it presents information in a clear, correct, concise, complete, consistent, and courteous manner.

07.0 Demonstrate leadership skills. The student will be able to:

07.01 Demonstrate ability to negotiate, resolve conflict through peer mediation, handle stress, deal with undesirable behavior in others, share in task accomplishment, and build positive working relationships with others.

07.02 Identify characteristics of a leader and team member.

07.03 Define and practice brainstorming.

07.04 Describe the use of teams to increase productivity.

07.05 Demonstrate business and social etiquette.

08.0 Demonstrate workplace readiness skills. The student will be able to:

08.01 Identify resources used in a job search.

08.02 Discuss importance of drug tests and criminal background checks in identifying possible employment options.

08.03 Identify steps of the job application process including arranging for references and proper documentation (e.g., green card).

08.04 Demonstrate appropriate dress and grooming for employment.

08.05 Identify documents that may be required when applying for a job.

08.06 Prepare a résumé (electronic and traditional), letter of application, follow-up letter, acceptance/rejection letter, letter of resignation, letter of recommendation.

08.07 Complete a job application form neatly, legibly, and error free.

08.08 Demonstrate competence in job interview techniques (behavioral).

### **Listed below are the eight career and education planning course standards:**

The student will be able to:

## CTE Standards and Benchmarks

09.0	Describe the influences that societal, economic, and technological changes have on employment trends and future training.
10.0	Develop skills to locate, evaluate, and interpret career information.
11.0	Identify and demonstrate processes for making short and long term goals.
12.0	Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
13.0	Understand the relationship between educational achievement and career choices/postsecondary options.
14.0	Identify a career cluster and related pathways through an interest assessment that match career and education goals.
15.0	Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
16.0	Demonstrate knowledge of technology and its application in career fields/clusters.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

The following list identifies the appropriate career and technical student organizations for providing leadership training and reinforcing specific career and technical skills: Business Professionals of America (BPA); DECA; Family, Career and Community Leaders of America (FCCLA); FFA; Florida Public Service Association (FPSA); Florida Technology Student Association (FL-TSA); Future Business Leaders of America – Phi Beta Lambda (FBLA-PBL); HOSA – Future Health Professionals (HOSA); SkillsUSA. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Career Planning**

**Effective July 1, 2019, per Section 1003.4156, Florida Statutes (F.S.), for students to meet middle grades promotion requirements, a Career and Education Planning course must be completed in either sixth, seventh, or eighth grade.** These courses should be taught integrating the eight career and education planning course standards. The MyCareerShines powered by Kuder® career planning system is available free of charge to all Florida middle and high schools to assist students in completing research-based career assessments, exploring career options and developing an online academic and career plan.

## **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Course Title:** Exploration of Career and Technical Occupations  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Diversified Education

**Secondary – Middle School**

Course Number	9100210
CIP Number	10989999EX
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	N/A

**Purpose**

The purpose of this course is to give students an opportunity to apply knowledge and skills related to the area of Exploration of Career and Technical Occupations. To give students initial exposure to the skills and attitudes associated with occupations in a diverse range of careers.

The content of this course will consist of the content contained in two or more existing exploration courses and may include instruction in making a career choice and the basic employability skills needed to locate, secure, and maintain employment.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
9100210	Exploration of Career and Technical Occupations	ANY FIELD WHEN CERT REFLECTS BACHELOR OR HIGHER ANY VOCATIONAL FIELD OR COVERAGE COOR WK EXP @7 7G	Semester

**Standards**

The intended outcomes for this course will be those outcomes that are selected from other exploration courses and may also include instruction in making a career choice and in the basic employability skills needed to locate, secure, and maintain employment.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Course Title:** Orientation to Career and Technical Occupations  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Diversified Education

Secondary – Middle School	
Course Number	9100310
CIP Number	10989999OR
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b>Course Structure</b> section.
CTSO	BPA, DECA, FBLA-PBL, FCCLA, FFA, FL-TSA, FPSA, HOSA, SkillsUSA

**Purpose**

The purpose of this course is to give students an opportunity to apply knowledge and skills related to the area of Orientation to Career and Technical Occupations.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
9100310	Orientation to Career and Technical Occupations	ANY FIELD WHEN CERT REFLECTS BACHELOR OR HIGHER ANY VOCATIONAL FIELD OR COVERAGE	Semester



## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Identify the resources and technology for career planning.
- 02.0 Identify available career and technical employment opportunities.
- 03.0 Identify components of self-understanding.
- 04.0 Define and demonstrate cognitive skills.
- 05.0 Identify and apply a variety of learning techniques and styles.
- 06.0 Develop effective communication skills.
- 07.0 Demonstrate leadership skills.
- 08.0 Demonstrate workplace readiness skills.

**Florida Department of Education  
Student Performance Standards**

**Course Title:**           **Orientation to Career and Technical Occupations**  
**Course Number:**       **9100310**  
**Course Length:**       **Semester**

<b>CTE Standards and Benchmarks</b>	
01.0	Identify the resources and technology for career planning. The student will be able to:
01.01	Using a variety of resources, assess personal abilities, temperaments, interests, values, experiences, personality traits, academic abilities, and work preferences.
01.02	Identify non-traditional career options.
01.03	Identify high skill/high wage occupations requiring specialized training with growth potential for future employment.
01.04	Using assessments and inventories, match results to a career goal.
01.05	Describe the steps involved in planning for education, career, and life goals.
01.06	Develop a career plan to include training/education requirements, tasks/responsibilities, employment prospects, and career/advancement opportunities.
01.07	Discuss advantages/disadvantages of entering the military, attending a trade/technical school, and/or enrolling at a community college/four-year university.
01.08	Begin creating a portfolio of documents for job placement.
02.0	Identify available career and technical employment opportunities. The student will be able to:
02.01	Identify employment opportunities in the area of Agriscience and Natural Resources.
02.02	Identify employment opportunities in the area of Construction.
02.03	Identify employment opportunities in the area of Manufacturing.
02.04	Identify employment opportunities in the area of Logistics, Transportation, and Distribution Services.
02.05	Identify employment opportunities in the area of Information Technology Services.
02.06	Identify employment opportunities in the area of Wholesale/Retail Sales and Services.
02.07	Identify employment opportunities in the area of Financial Services.

## CTE Standards and Benchmarks

02.08 Identify employment opportunities in the area of Hospitality and Tourism.

02.09 Identify employment opportunities in the area of Business and Administrative Services.

02.10 Identify employment opportunities in the area of Health Services.

02.11 Identify employment opportunities in the area of Human Services.

02.12 Identify employment opportunities in the area of Arts and Communication Services.

02.13 Identify employment opportunities in the area of Legal and Protective Services.

02.14 Identify employment opportunities in the area of Scientific, Engineering, and Technical Services.

03.0 Identify components of self-understanding. The student will be able to:

03.01 Explain how values are acquired and changed.

03.02 Explain how work is affected by values.

03.03 Identify how individuals from diverse backgrounds offer unique contributions.

03.04 Discuss methods for adapting learning styles to the method of instructional delivery.

04.0 Define and demonstrate cognitive skills. The student will be able to:

04.01 Describe importance of time management to complete tasks accurately and on time.

04.02 Outline strategies for effective time management.

04.03 Describe role and relationship between values, aptitudes, abilities, and goal setting and attainment of academic and occupational skills.

04.04 Set personal goals and develop a plan of action to achieve those goals.

04.05 Identify problems and consequences of meeting goals.

04.06 Describe ways to deal with success and failure.

04.07 Exhibit awareness of and respect for others.

04.08 Demonstrate ways to improve test-taking skills, including preparing for standardized tests.

04.09 Explain the steps in decision-making.

## CTE Standards and Benchmarks

04.10 Identify the process involved in problem solving.

04.11 Develop an action plan for solving problems and making decisions.

04.12 Identify strategies for building self-esteem and enhancing decision-making skills.

04.13 Demonstrate knowledge of the planning process.

04.14 Demonstrate ability to think creatively and generate new ideas.

04.15 Demonstrate the ability to conduct a systematic analysis of personal strengths and weaknesses.

05.0 Identify and apply a variety of learning techniques and styles. The student will be able to:

05.01 Describe the advantages of good note taking/outlining and listening skills.

05.02 Explain and apply a variety of strategies for knowledge retention of specific data, etc.

05.03 Describe and apply study techniques.

05.04 Discuss and employ a variety of test-taking strategies.

05.05 Discuss the seven intelligences as identified by Howard Gardner (musical, bodily-kinesthetic, logical-mathematical, linguistic, spatial, interpersonal, intrapersonal).

05.06 Discuss styles of learning as identified by Anthony Gregorc (concrete sequential, abstract sequential, abstract random, concrete random).

05.07 Identify learning style as auditory language, visual language, auditory numerical, visual numerical, and/or auditory-visual-kinesthetic combination.

06.0 Develop effective communication skills. The student will be able to:

06.01 Identify the effectiveness of assertive, aggressive, and passive communication.

06.02 Dramatize the impact of non-verbal behavior on communication.

06.03 Develop ways to provide effective feedback and deal with criticism.

06.04 Describe the importance of the proper use of grammar, vocabulary, diction, and etiquette.

06.05 Demonstrate ability to communicate in a multicultural setting.

06.06 Demonstrate ability to listen to, follow, and provide directions.

06.07 Participate in group and committee discussions to reach group consensus.

## CTE Standards and Benchmarks

06.08 Write, edit, and revise a communication so that it presents information in a clear, correct, concise, complete, consistent, and courteous manner.

07.0 Demonstrate leadership skills. The student will be able to:

07.01 Demonstrate ability to negotiate, resolve conflict through peer mediation, handle stress, deal with undesirable behavior in others, share in task accomplishment, and build positive working relationships with others.

07.02 Identify characteristics of a leader and team member.

07.03 Define and practice brainstorming.

07.04 Describe the use of teams to increase productivity.

07.05 Demonstrate business and social etiquette.

08.0 Demonstrate workplace readiness skills. The student will be able to:

08.01 Identify resources used in a job search.

08.02 Discuss importance of drug tests and criminal background checks in identifying possible employment options.

08.03 Identify steps of the job application process including arranging for references and proper documentation (e.g., green card).

08.04 Demonstrate appropriate dress and grooming for employment.

08.05 Identify documents that may be required when applying for a job.

08.06 Prepare a résumé (electronic and traditional), letter of application, follow-up letter, acceptance/rejection letter, letter of resignation, letter of recommendation.

08.07 Complete a job application form neatly, legibly, and error free.

08.08 Demonstrate competence in job interview techniques (behavioral).

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

The following list identifies the appropriate career and technical student organizations for providing leadership training and reinforcing specific career and technical skills: Business Professionals of America (BPA); DECA; Family, Career and Community Leaders of America (FCCLA); FFA; Florida Public Service Association (FPSA); Florida Technology Student Association (FL-TSA); Future Business Leaders of America – Phi Beta Lambda (FBLA-PBL); HOSA – Future Health Professionals (HOSA); SkillsUSA. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Course Title:** Introduction to Law, Public Safety and Security  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Law, Public Safety and Security

**Secondary – Middle School**

Program Number	9160350
CIP Number	149160350M
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	N/A

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Introduction to Law, Public Safety and Security career cluster. Thousands of challenging educational and training opportunities are offered in the highly skilled Law, Public Safety, Corrections and Security Career Cluster. These opportunities continue to expand in the areas of corporate, industrial, homeland security and public safety. Reinforcement of academic skills occurs through classroom instruction and applied laboratory procedures.

Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.



## **Course Structure**

This program is a planned sequence of instruction consisting of one course.

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
9160350	Introduction to Law, Public Safety and Security	LAW ENF@7 7 G CORR OFF 7 G ANY PUB SERV OCC ED G	Semester

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate an understanding of the Emergency and fire management career pathway.
- 02.0 Demonstrate an understanding of the Security and protective services career pathway.
- 03.0 Demonstrate an understanding of the Law enforcement services career pathway.
- 04.0 Demonstrate an understanding of the Legal services career pathway.
- 05.0 Demonstrate an understanding of the Correction services career pathway.
- 06.0 Apply leadership and communication skills.
- 07.0 Describe how information technology is used in the Law, Public Safety and Security career cluster.
- 08.0 Use information technology tools.
- 09.0 Identify components of Criminal Investigations.
- 10.0 Describe and use communication protocols for Law, Public Safety & Security career cluster.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Introduction to Law, Public Safety and Security  
**Course Number:** 9160350  
**Course Credit:** Semester

**Course Description:**

Beginning with a broad overview of the Introduction to Law, Public Safety and Security career cluster, students are introduced to the terminology, careers, history, required skills, and technologies associated with each pathway in the Introduction to Law, Public Safety and Security career cluster. Additionally, they will be provided with opportunities to acquire and demonstrate beginning leadership skills.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate an understanding of the Emergency and Fire Management Services career pathway. – The student will be able to:
01.01	Define and use proper terminology associated with the Emergency and Fire Management Services career pathway.
01.02	Describe some of the careers available in the Emergency and Fire Management Services career pathway.
01.03	Identify common characteristics of the careers in the Emergency and Fire Management Services career pathway.
01.04	Research the history of the Emergency and Fire Management Services career pathway and describe how the careers have evolved and impacted society.
01.05	Identify skills required to successfully enter any career in the Emergency and Fire Management Services career pathway.
01.06	Describe technologies associated in careers within the Correction Services career pathway.
02.0	Demonstrate an understanding of the Security and protective services career pathway. – The student will be able to:
02.01	Define and use proper terminology associated with the Security and protective services career pathway.
02.02	Describe some of the careers available in the Security and protective services career pathway.
02.03	Identify common characteristics of the careers in the Security and protective services career pathway.
02.04	Research the history of the Security and protective services career pathway and describe how the careers have evolved and impacted society.
02.05	Identify skills required to successfully enter any career in the Security and protective services career pathway.
02.06	Describe technologies associated in careers within the Security and protective services career pathway.
03.0	Demonstrate an understanding of the Law enforcement services career pathway. – The student will be able to:

## CTE Standards and Benchmarks

03.01 Define and use proper terminology associated with the Law enforcement services career pathway.

03.02 Describe some of the careers available in the Law enforcement services career pathway to include:

- a. Law Enforcement
- b. K-9
- c. Dispatch
- d. Traffic Enforcement
- e. Investigations
- f. Agriculture Officer
- g. Marine Patrol
- h. Aviation Officer

03.03 Research the history of the Law enforcement services career pathway and describe how the careers have evolved and impacted society from the 1970's to present day.

03.04 Identify skills required to successfully enter any career in the Law enforcement services career pathway to include:

- a. FBI Academy
- b. FLETC
- c. Florida Law Enforcement Academy

03.05 Describe technologies associated in careers within the Law enforcement services career pathway to include:

- a. Forensics
- b. Cyber Crime
- c. Crime Prevention

04.0 Demonstrate an understanding of the Legal services career pathway. – The student will be able to:

04.01 Define and use proper terminology associated with the Legal services career pathway.

04.02 Describe some of the careers available in the Legal services career pathway.

04.03 Identify common characteristics of the careers in the Legal services career pathway.

04.04 Research the history of the Legal services career pathway and describe how the associated careers have evolved and impacted society.

04.05 Identify skills required to successfully enter any career in the Legal services career pathway.

04.06 Describe technologies associated in careers within the Legal services career pathway.

05.0 Demonstrate an understanding of the Correction services career pathway. – The student will be able to:

05.01 Define and use proper terminology associated with the Correction services career pathway for officer level.

05.02 Describe some of the careers available in the Correction services career pathway to include:

- a. Officer
- b. Probation

## CTE Standards and Benchmarks

- c. Psychology
- d. Medical
- e. Social Services
- f. Food Services
- g. Gang Investigators

05.03 Identify common characteristics of the careers in the Correction services career pathway.

05.04 Research the history of the Correction services career pathway and describe how the careers have evolved and impacted society from 1970's to present.

05.05 Identify skills required to successfully enter any career in the Correction services career pathway to include:

- a. Prison Construction
- b. Digital Courts
- c. Audio/Visual Monitoring

05.06 Describe technologies associated in careers within the Correction services career pathway.

06.0 Apply leadership and communication skills. – The student will be able to:

06.01 Discuss the establishment and history of the FPSA organization.

06.02 Identify the characteristics and responsibilities of organizational leaders.

06.03 Demonstrate parliamentary procedure skills during a meeting.

06.04 Participate on a committee which has an assigned task and report to the class.

06.05 Demonstrate effective communication skills through delivery of a speech, a powerpoint, or conducting a demonstration.

06.06 Use a computer to assist in the completion of a project related to the Law, Public Safety and Security career cluster.

07.0 Describe how information technology is used in the Law, Public Safety and Security career cluster. – The student will be able to:

07.01 Identify information technology (IT) careers in the Law, Public Safety and Security career cluster, including the responsibilities, tasks and skills they require to include:

- a. NCIC/FCIC
- b. CAD System in Dispatch
- c. Computer Forensics
- d. Encryption

07.02 Research information technology career for a presentation.

07.03 Identify security-related ethical and legal IT issues faced by professionals in the Law, Public Safety and Security career cluster to include:

- a. confidentiality
- b. personal information (personal computer use)

## CTE Standards and Benchmarks

08.0 Use information technology tools. – The student will be able to:

08.01 Identify the functions of web browsers, and use them to access the World Wide Web and other computer resources typically used in Law, Public Safety and Security career cluster.

08.02 Use e-mail clients to send simple messages and files to other Internet users.

08.03 Demonstrate ways to communicate effectively using Internet technology.

08.04 Use different types of web search engines effectively to locate information relevant to the Law, Public Safety and Security career cluster.

09.0 Identify components of Criminal Investigations.—The student will be able to:

09.01 Describe some careers available in criminal investigations to include:  
a. crime scene technician  
b. crime lab technician

09.02 Identify evidence is at a crime scene.

09.03 Describe how to collect evidence at a crime scene.

09.04 Demonstrate the skills for lifting latent prints.

09.05 Participate in processing a mock crime scene.

10.0 Describe and use communication protocols for Law, Public Safety & Security career cluster.-- The student will be able to:

10.01 Define what a MDT (Mobile Data Terminal) and how it is used.

10.02 Describe the different types of dispatching organizations.

10.03 Identify the correct identification of the phonetic alphabet.

10.04 Identify and use proper radio procedures for communicating.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

Florida Public Service Association, Inc. is the inter-curricular career and technical student organization(s) providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Course Title:** Introduction to Law, Public Safety and Security and Career Planning  
**Course Type:** Orientation/Exploratory and Career Planning  
**Career Cluster:** Law, Public Safety and Security

Secondary – Middle School	
Program Number	9160360
CIP Number	149160360M
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	N/A

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Introduction to Law, Public Safety and Security career cluster. Thousands of challenging educational and training opportunities are offered in the highly skilled Law, Public Safety, and Security Career Cluster. These opportunities continue to expand in the areas of corporate, industrial, homeland security and public safety. Reinforcement of academic skills occurs through classroom instruction and applied laboratory procedures.

Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Course Structure**

This program is a planned sequence of instruction consisting of one course.

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.



The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
9160360	Introduction to Law, Public Safety and Security and Career Planning	LAW ENF@7 7 G CORR OFF 7 G ANY PUB SERV OCC ED G	Semester

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate an understanding of the Emergency and fire management career pathway.
- 02.0 Demonstrate an understanding of the Security and protective services career pathway.
- 03.0 Demonstrate an understanding of the Law enforcement services career pathway.
- 04.0 Demonstrate an understanding of the Legal services career pathway.
- 05.0 Demonstrate an understanding of the Correction services career pathway.
- 06.0 Apply leadership and communication skills.
- 07.0 Describe how information technology is used in the Law, Public Safety and Security career cluster.
- 08.0 Use information technology tools.
- 09.0 Identify components of Criminal Investigations.
- 10.0 Describe and use communication protocols for Law, Public Safety & Security career cluster.

### **Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes:**

- 11.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.
- 12.0 Develop skills to locate, evaluate, and interpret career information.
- 13.0 Identify and demonstrate processes for making short and long term goals.
- 14.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
- 15.0 Understand the relationship between educational achievement and career choices/postsecondary options.
- 16.0 Identify a career cluster and related pathways through an interest assessment that match career and education goals.
- 17.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
- 18.0 Demonstrate knowledge of technology and its application in career fields/clusters.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Introduction to Law, Public Safety and Security and Career Planning  
**Course Number:** 9160360  
**Course Credit:** Semester

**Course Description:**

Beginning with a broad overview of the Introduction to Law, Public Safety and Security career cluster, students are introduced to the terminology, careers, history, required skills, and technologies associated with each pathway in the Introduction to Law, Public Safety and Security career cluster. Additionally, they will be provided with opportunities to acquire and demonstrate beginning leadership skills.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate an understanding of the Emergency and Fire Management Services career pathway. – The student will be able to:
01.01	Define and use proper terminology associated with the Emergency and Fire Management Services career pathway.
01.02	Describe some of the careers available in the Emergency and Fire Management Services career pathway.
01.03	Identify common characteristics of the careers in the Emergency and Fire Management Services career pathway.
01.04	Research the history of the Emergency and Fire Management Services career pathway and describe how the careers have evolved and impacted society.
01.05	Identify skills required to successfully enter any career in the Emergency and Fire Management Services career pathway.
01.06	Describe technologies associated in careers within the Correction Services career pathway.
02.0	Demonstrate an understanding of the Security and protective services career pathway. – The student will be able to:
02.01	Define and use proper terminology associated with the Security and protective services career pathway.
02.02	Describe some of the careers available in the Security and protective services career pathway.
02.03	Identify common characteristics of the careers in the Security and protective services career pathway.
02.04	Research the history of the Security and protective services career pathway and describe how the careers have evolved and impacted society.
02.05	Identify skills required to successfully enter any career in the Security and protective services career pathway.
02.06	Describe technologies associated in careers within the Security and protective services career pathway.
03.0	Demonstrate an understanding of the Law enforcement services career pathway. – The student will be able to:

03.01	Define and use proper terminology associated with the Law enforcement services career pathway.
03.02	Describe some of the careers available in the Law enforcement services career pathway to include: <ul style="list-style-type: none"> <li>a. Law Enforcement</li> <li>b. K-9</li> <li>c. Dispatch</li> <li>d. Traffic Enforcement</li> <li>e. Investigations</li> <li>f. Agriculture Officer</li> <li>g. Marine Patrol</li> <li>h. Aviation Officer</li> </ul>
03.03	Research the history of the Law enforcement services career pathway and describe how the careers have evolved and impacted society from the 1970's to present day.
03.04	Identify skills required to successfully enter any career in the Law enforcement services career pathway to include: <ul style="list-style-type: none"> <li>a. FBI Academy</li> <li>b. FLETC</li> <li>c. Florida Law Enforcement Academy</li> </ul>
03.05	Describe technologies associated in careers within the Law enforcement services career pathway to include: <ul style="list-style-type: none"> <li>a. Forensics</li> <li>b. Cyber Crime</li> <li>c. Crime Prevention</li> </ul>
04.0	Demonstrate an understanding of the Legal services career pathway. – The student will be able to:
04.01	Define and use proper terminology associated with the Legal services career pathway.
04.02	Describe some of the careers available in the Legal services career pathway.
04.03	Identify common characteristics of the careers in the Legal services career pathway.
04.04	Research the history of the Legal services career pathway and describe how the associated careers have evolved and impacted society.
04.05	Identify skills required to successfully enter any career in the Legal services career pathway.
04.06	Describe technologies associated in careers within the Legal services career pathway.
05.0	Demonstrate an understanding of the Correction services career pathway. – The student will be able to:
05.01	Define and use proper terminology associated with the Correction services career pathway for officer level.
05.02	Describe some of the careers available in the Correction services career pathway to include: <ul style="list-style-type: none"> <li>a. Officer</li> <li>b. Probation</li> <li>c. Psychology</li> <li>d. Medical</li> </ul>

	<ul style="list-style-type: none"> <li>e. Social Services</li> <li>f. Food Services</li> <li>g. Gang Investigators</li> </ul>
05.03	Identify common characteristics of the careers in the Correction services career pathway.
05.04	Research the history of the Correction services career pathway and describe how the careers have evolved and impacted society from 1970's to present.
05.05	Identify skills required to successfully enter any career in the Correction services career pathway to include: <ul style="list-style-type: none"> <li>a. Prison Construction</li> <li>b. Digital Courts</li> <li>c. Audio/Visual Monitoring</li> </ul>
05.06	Describe technologies associated in careers within the Correction services career pathway.
06.0	Apply leadership and communication skills. – The student will be able to:
06.01	Discuss the establishment and history of the FPSA organization.
06.02	Identify the characteristics and responsibilities of organizational leaders.
06.03	Demonstrate parliamentary procedure skills during a meeting.
06.04	Participate on a committee which has an assigned task and report to the class.
06.05	Demonstrate effective communication skills through delivery of a speech, a slide presentation, or conducting a demonstration.
06.06	Use a computer to assist in the completion of a project related to the Law, Public Safety and Security career cluster.
07.0	Describe how information technology is used in the Law, Public Safety and Security career cluster. – The student will be able to:
07.01	Identify information technology (IT) careers in the Law, Public Safety and Security career cluster, including the responsibilities, tasks and skills they require to include: <ul style="list-style-type: none"> <li>a. NCIC/FCIC</li> <li>b. CAD System in Dispatch</li> <li>c. Computer Forensics</li> <li>d. Encryption</li> </ul>
07.02	Research information technology career for a presentation.
07.03	Identify security-related ethical and legal IT issues faced by professionals in the Law, Public Safety and Security career cluster to include: <ul style="list-style-type: none"> <li>a. confidentiality</li> <li>b. personal information (personal computer use)</li> </ul>
08.0	Use information technology tools. – The student will be able to:
08.01	Identify the functions of web browsers, and use them to access the World Wide Web and other computer resources typically used in Law, Public Safety and Security career cluster.

08.02	Use e-mail clients to send simple messages and files to other Internet users.
08.03	Demonstrate ways to communicate effectively using Internet technology.
08.04	Use different types of web search engines effectively to locate information relevant to the Law, Public Safety and Security career cluster.
09.0	Identify components of Criminal Investigations.—The student will be able to:
09.01	Describe some careers available in criminal investigations to include: a. crime scene technician b. crime lab technician
09.02	Identify evidence is at a crime scene.
09.03	Describe how to collect evidence at a crime scene.
09.04	Demonstrate the skills for lifting latent prints.
09.05	Participate in processing a mock crime scene.
10.0	Describe and use communication protocols for Law, Public Safety & Security career cluster.-- The student will be able to:
10.01	Define what a MDT (Mobile Data Terminal) and how it is used.
10.02	Describe the different types of dispatching organizations.
10.03	Identify the correct identification of the phonetic alphabet.
10.04	Identify and use proper radio procedures for communicating.
<b>Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes—the students will be able to:</b>	
11.0	Describe the influences that societal, economic, and technological changes have on employment trends and future training.
12.0	Develop skills to locate, evaluate, and interpret career information.
13.0	Identify and demonstrate processes for making short and long term goals.
14.0	Demonstrate employability skills such as working in a group, problem-solving and organizational skills.
15.0	Understand the relationship between educational achievement and career choices/postsecondary options.
16.0	Identify a career cluster and related pathways that match career and education goals.
17.0	Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.

18.0 Demonstrate knowledge of technology and its application in career fields/clusters.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career Planning**

**Effective July 1, 2019, per Section 1003.4156, Florida Statutes (F.S.), for students to meet middle grades promotion requirements, a Career and Education Planning course must be completed in either sixth, seventh, or eighth grade.** These courses should be taught integrating the eight career and education planning course standards. The MyCareerShines powered by Kuder® career planning system is available free of charge to all Florida middle and high schools to assist students in completing research-based career assessments, exploring career options and developing an online academic and career plan.

### **Career and Technical Student Organization (CTSO)**

Florida Public Service Association, Inc. is the inter-curricular career and technical student organization(s) providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Accommodations**



Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Course Title:** Introduction to Manufacturing  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Manufacturing

**Secondary – Middle School**

Course Number	9260350
CIP Number	149260350M
Grade Level	6 – 8
Standard Length	Semester
Teacher Certification	Refer to the <b>Course Structure</b> section
CTSO	FL-TSA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the manufacturing career cluster. The content includes but is not limited to planning, managing, and performing the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance and manufacturing/process engineering. Reinforcement of academic skills occurs through classroom instruction and applied laboratory procedures. Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
9260350	Introduction to Manufacturing	AUTO PROD 7G ELECTRONIC @7 7G ENG 7G IND ENGR 7G TEC ED 1 @ 2	Semester

### **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate an understanding of the Production career pathway.
- 02.0 Demonstrate an understanding of the Manufacturing Production Process Development career pathway.
- 03.0 Demonstrate an understanding of the Maintenance, Installation and Repair career pathway.
- 04.0 Demonstrate an understanding of the Quality Assurance career pathway.
- 05.0 Demonstrate an understanding of the Logistics and Inventory Control career pathway.
- 06.0 Demonstrate an understanding of the Health, Safety and Environmental Assurance career pathway.
- 07.0 Apply leadership and communication skills.
- 08.0 Describe how information technology is used in the Manufacturing career cluster.
- 09.0 Use information technology tools.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Introduction to Manufacturing  
**Course Number:** 9260350  
**Course Length:** Semester

**Course Description:**

Beginning with a broad overview of the manufacturing career cluster, students are introduced to the terminology, careers, history, required skills, and technologies associated with each pathway in the manufacturing career cluster. Additionally, they will be provided with opportunities to acquire and demonstrate beginning leadership skills.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate an understanding of the Production career pathway.--The student will be able to:
01.01	Define and use proper terminology associated with the Production career pathway.
01.02	Describe some of the careers available in the Production career pathway.
01.03	Identify common characteristics of the careers in the Production career pathway.
01.04	Research the history of the Production career pathway and describe how the associated careers have evolved and impacted society.
01.05	Identify skills required to successfully enter any career in the Production career pathway.
01.06	Describe technologies associated in careers within the Production career pathway.
02.0	Demonstrate an understanding of the Manufacturing Production Process Development career pathway.--The student will be able to:
02.01	Define and use proper terminology associated with the Manufacturing Production Process Development career pathway.
02.02	Describe some of the careers available in the Manufacturing Production Process Development career pathway.
02.03	Identify common characteristics of the careers in the Manufacturing Production Process Development career pathway.
02.04	Research the history of the Manufacturing Production Process Development career pathway and describe how the careers have evolved and impacted society.
02.05	Identify skills required to successfully enter any career in the Manufacturing Production Process Development career pathway.
02.06	Describe technologies associated in careers within the Manufacturing Production Process Development career pathway.
03.0	Demonstrate an understanding of the Maintenance, Installation and Repair career pathway.--The student will be able to:

## CTE Standards and Benchmarks

03.01	Define and use proper terminology associated with the Maintenance, Installation and Repair career pathway.
03.02	Describe some of the careers available in the Maintenance, Installation and Repair career pathway.
03.03	Identify common characteristics of the careers in the Maintenance, Installation and Repair career pathway.
03.04	Research the history of the Maintenance, Installation and Repair career pathway and describe how the careers have evolved and impacted society.
03.05	Identify skills required to successfully enter any career in the Maintenance, Installation and Repair career pathway.
03.06	Describe technologies associated in careers within the Maintenance, Installation and Repair career pathway.
04.0	Demonstrate an understanding of the Quality Assurance career pathway.--The student will be able to:
04.01	Define and use proper terminology associated with the Quality Assurance career pathway.
04.02	Describe some of the careers available in the Quality Assurance career pathway.
04.03	Identify common characteristics of the careers in the Quality Assurance career pathway.
04.04	Research the history of the Quality Assurance career pathway and describe how the careers have evolved and impacted society.
04.05	Identify skills required to successfully enter any career in the Quality Assurance career pathway.
04.06	Describe technologies associated in careers within the Quality Assurance career pathway.
05.0	Demonstrate an understanding of the Logistics and Inventory Control career pathway.--The student will be able to:
05.01	Define and use proper terminology associated with the Logistics and Inventory Control career pathway.
05.02	Describe some of the careers available in the Logistics and Inventory Control career pathway.
05.03	Identify common characteristics of the careers in the Logistics and Inventory Control career pathway.
05.04	Research the history of the Logistics and Inventory Control career pathway and describe how the careers have evolved and impacted society.
05.05	Identify skills required to successfully enter any career in the Logistics and Inventory Control career pathway.
05.06	Describe technologies associated in careers within the Logistics and Inventory Control career pathway.
06.0	Demonstrate an understanding of the Health, Safety and Environmental Assurance career pathway.--The student will be able to:
06.01	Define and use proper terminology associated with the Health, Safety and Environmental Assurance career pathway.
06.02	Describe some of the careers available in the Health, Safety and Environmental Assurance career pathway.

## CTE Standards and Benchmarks

06.03	Identify common characteristics of the careers in the Health, Safety and Environmental Assurance career pathway.
06.04	Research the history of the Health, Safety and Environmental Assurance career pathway and describe how the careers have evolved and impacted society.
06.05	Identify skills required to successfully enter any career in the Health, Safety and Environmental Assurance career pathway.
06.06	Describe technologies associated in careers within the Health, Safety and Environmental Assurance career pathway.
07.0	Apply leadership and communication skills.--The student will be able to:
07.01	Discuss the establishment and history of the FL-TSA organization.
07.02	Identify the characteristics and responsibilities of organizational leaders.
07.03	Demonstrate parliamentary procedure skills during a meeting.
07.04	Participate on a committee which has an assigned task and report to the class.
07.05	Demonstrate effective communication skills through delivery of a speech, a slide presentation, or conducting a demonstration.
07.06	Use a computer to assist in the completion of a project related to the manufacturing career cluster.
08.0	Describe how information technology is used in the manufacturing career cluster.--The student will be able to:
08.01	Identify information technology (IT) careers in the manufacturing career cluster, including the responsibilities, tasks and skills they require.
08.02	Relate information technology project management concepts and terms to careers in the manufacturing career cluster.
08.03	Manage information technology components typically used in professions of the manufacturing career cluster.
08.04	Identify security-related ethical and legal IT issues faced by professionals in the manufacturing career cluster.
09.0	Use information technology tools.--The student will be able to:
09.01	Identify the functions of web browsers, and use them to access the World Wide Web and other computer resources typically used in the manufacturing career cluster.
09.02	Use e-mail clients to send simple messages and files to other Internet users.
09.03	Demonstrate ways to communicate effectively using Internet technology.
09.04	Use different types of web search engines effectively to locate information relevant to the manufacturing career cluster.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

The Florida Technology Student Association (FL-TSA) is the intercurricular career and technical student organization for providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Postsecondary students with disabilities must self-identify, present documentation, request accommodations if needed, and develop a plan with their counselor and/or instructors. Accommodations received in postsecondary education may differ from those received in secondary education. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.



Florida Department of Education  
Curriculum Framework

**Course Title:** Introduction to Manufacturing and Career Planning\*  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Manufacturing

**Secondary – Middle School**

Course Number	9260360
CIP Number	149260360M
Grade Level	6 – 8
Standard Length	Semester
Teacher Certification	Refer to the <b>Course Structure</b> section.
CTSO	FL-TSA

\*Effective July 1, 2017, there is no longer a promotion requirement for middle grades students to complete a Career and Education Planning course. However, these courses will continue to be available and should be taught integrating the eight career and education planning course standards. The MyCareerShines powered by Kuder® career planning system is available free of charge to all Florida middle and high schools to assist students in exploring career options and developing an academic and career plan.

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the manufacturing career cluster. The content includes but is not limited to planning, managing, and performing the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance and manufacturing/process engineering. Reinforcement of academic skills occurs through classroom instruction and applied laboratory procedures. Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
9260360	Introduction to Manufacturing and Career Planning	AUTO PROD 7G ELECTRONIC @7 7G ENG 7G IND ENGR 7G TEC ED 1 @ 2	Semester

## **Standards**

### **After successfully completing this program, the student will be able to perform the following:**

- 01.0 Demonstrate an understanding of the Production career pathway.
- 02.0 Demonstrate an understanding of the Manufacturing Production Process Development career pathway.
- 03.0 Demonstrate an understanding of the Maintenance, Installation and Repair career pathway.
- 04.0 Demonstrate an understanding of the Quality Assurance career pathway.
- 05.0 Demonstrate an understanding of the Logistics and Inventory Control career pathway.
- 06.0 Demonstrate an understanding of the Health, Safety and Environmental Assurance career pathway.
- 07.0 Apply leadership and communication skills.
- 08.0 Describe how information technology is used in the Manufacturing career cluster.
- 09.0 Use information technology tools.

### **Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes.**

- 10.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.
- 11.0 Develop skills to locate, evaluate, and interpret career information.
- 12.0 Identify and demonstrate processes for making short and long term goals.
- 13.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
- 14.0 Understand the relationship between educational achievement and career choices/postsecondary options.
- 15.0 Identify a career cluster and related pathways through an interest assessment that match career and education goals.
- 16.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
- 17.0 Demonstrate knowledge of technology and its application in career fields/clusters.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Introduction to Manufacturing and Career Planning  
**Course Number:** 9260360  
**Course Length:** Semester

**Course Description:**

Beginning with a broad overview of the manufacturing career cluster, students are introduced to the terminology, careers, history, required skills, and technologies associated with each pathway in the manufacturing career cluster. Additionally, they will be provided with opportunities to acquire and demonstrate beginning leadership skills.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate an understanding of the Production career pathway.--The student will be able to:
01.01	Define and use proper terminology associated with the Production career pathway.
01.02	Describe some of the careers available in the Production career pathway.
01.03	Identify common characteristics of the careers in the Production career pathway.
01.04	Research the history of the Production career pathway and describe how the associated careers have evolved and impacted society.
01.05	Identify skills required to successfully enter any career in the Production career pathway.
01.06	Describe technologies associated in careers within the Production career pathway.
02.0	Demonstrate an understanding of the Manufacturing Production Process Development career pathway.--The student will be able to:
02.01	Define and use proper terminology associated with the Manufacturing Production Process Development career pathway.
02.02	Describe some of the careers available in the Manufacturing Production Process Development career pathway.
02.03	Identify common characteristics of the careers in the Manufacturing Production Process Development career pathway.
02.04	Research the history of the Manufacturing Production Process Development career pathway and describe how the careers have evolved and impacted society.
02.05	Identify skills required to successfully enter any career in the Manufacturing Production Process Development career pathway.
02.06	Describe technologies associated in careers within the Manufacturing Production Process Development career pathway.

## CTE Standards and Benchmarks

03.0 Demonstrate an understanding of the Maintenance, Installation and Repair career pathway.--The student will be able to:

03.01 Define and use proper terminology associated with the Maintenance, Installation and Repair career pathway.

03.02 Describe some of the careers available in the Maintenance, Installation and Repair career pathway.

03.03 Identify common characteristics of the careers in the Maintenance, Installation and Repair career pathway.

03.04 Research the history of the Maintenance, Installation and Repair career pathway and describe how the careers have evolved and impacted society.

03.05 Identify skills required to successfully enter any career in the Maintenance, Installation and Repair career pathway.

03.06 Describe technologies associated in careers within the Maintenance, Installation and Repair career pathway.

04.0 Demonstrate an understanding of the Quality Assurance career pathway.--The student will be able to:

04.01 Define and use proper terminology associated with the Quality Assurance career pathway.

04.02 Describe some of the careers available in the Quality Assurance career pathway.

04.03 Identify common characteristics of the careers in the Quality Assurance career pathway.

04.04 Research the history of the Quality Assurance career pathway and describe how the careers have evolved and impacted society.

04.05 Identify skills required to successfully enter any career in the Quality Assurance career pathway.

04.06 Describe technologies associated in careers within the Quality Assurance career pathway.

05.0 Demonstrate an understanding of the Logistics and Inventory Control career pathway.--The student will be able to:

05.01 Define and use proper terminology associated with the Logistics and Inventory Control career pathway.

05.02 Describe some of the careers available in the Logistics and Inventory Control career pathway.

05.03 Identify common characteristics of the careers in the Logistics and Inventory Control career pathway.

05.04 Research the history of the Logistics and Inventory Control career pathway and describe how the careers have evolved and impacted society.

05.05 Identify skills required to successfully enter any career in the Logistics and Inventory Control career pathway.

05.06 Describe technologies associated in careers within the Logistics and Inventory Control career pathway.

06.0 Demonstrate an understanding of the Health, Safety and Environmental Assurance career pathway.--The student will be able to:

06.01 Define and use proper terminology associated with the Health, Safety and Environmental Assurance career pathway.

## CTE Standards and Benchmarks

06.02	Describe some of the careers available in the Health, Safety and Environmental Assurance career pathway.
06.03	Identify common characteristics of the careers in the Health, Safety and Environmental Assurance career pathway.
06.04	Research the history of the Health, Safety and Environmental Assurance career pathway and describe how the careers have evolved and impacted society.
06.05	Identify skills required to successfully enter any career in the Health, Safety and Environmental Assurance career pathway.
06.06	Describe technologies associated in careers within the Health, Safety and Environmental Assurance career pathway.
07.0	Apply leadership and communication skills.--The student will be able to:
07.01	Discuss the establishment and history of the FL-TSA organization.
07.02	Identify the characteristics and responsibilities of organizational leaders.
07.03	Demonstrate parliamentary procedure skills during a meeting.
07.04	Participate on a committee which has an assigned task and report to the class.
07.05	Demonstrate effective communication skills through delivery of a speech, a slide presentation, or conducting a demonstration.
07.06	Use a computer to assist in the completion of a project related to the manufacturing career cluster.
08.0	Describe how information technology is used in the manufacturing career cluster.--The student will be able to:
08.01	Identify information technology (IT) careers in the manufacturing career cluster, including the responsibilities, tasks and skills they require.
08.02	Relate information technology project management concepts and terms to careers in the manufacturing career cluster.
08.03	Manage information technology components typically used in professions of the manufacturing career cluster.
08.04	Identify security-related ethical and legal IT issues faced by professionals in the manufacturing career cluster.
09.0	Use information technology tools.--The student will be able to:
09.01	Identify the functions of web browsers, and use them to access the World Wide Web and other computer resources typically used in the manufacturing career cluster.
09.02	Use e-mail clients to send simple messages and files to other Internet users.
09.03	Demonstrate ways to communicate effectively using Internet technology.
09.04	Use different types of web search engines effectively to locate information relevant to the manufacturing career cluster.

## CTE Standards and Benchmarks

**Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes.**

The student will be able to:

10.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.

11.0 Develop skills to locate, evaluate, and interpret career information.

12.0 Identify and demonstrate processes for making short and long term goals.

13.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.

14.0 Understand the relationship between educational achievement and career choices/postsecondary options.

15.0 Identify a career cluster and related pathways through an interest assessment that match career and education goals.

16.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.

17.0 Demonstrate knowledge of technology and its application in career fields/clusters.

## Additional Information

### Laboratory Activities

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### Florida Standards for English Language Development (ELD)

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### Special Notes

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### Career Planning

**Effective July 1, 2019, per Section 1003.4156, Florida Statutes (F.S.), for students to meet middle grades promotion requirements, a Career and Education Planning course must be completed in either sixth, seventh, or eighth grade.** These courses should be taught integrating the eight career and education planning course standards. The MyCareerShines powered by Kuder® career planning system is available free of charge to all Florida middle and high schools to assist students in completing research-based career assessments, exploring career options and developing an online academic and career plan.

### Career and Technical Student Organization (CTSO)

The Florida Technology Student Association (FL-TSA) is the intercurricular career and technical student organization for providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

## **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.



Florida Department of Education  
Curriculum Framework

Course Title:        **Fundamentals of Manufacturing**  
Course Type:        **Orientation/Exploratory**  
Career Cluster:     **Manufacturing**

**Secondary – Middle School**

Course Number	9260400
CIP Number	149260400M
Grade Level	6 – 8
Standard Length	Semester
Teacher Certification	Refer to the <b>Course Structure</b> section
CTSO	FL-TSA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the manufacturing career cluster. This course provides students with opportunities to become familiar with related careers and develop fundamental technological literacy as they learn about the history, systems, and processes of manufacturing. In addition, the course will provide an overview of the safe use of tools and equipment used in the industry. Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
9260400	Fundamentals of Manufacturing	AUTO PROD 7G ELECTRONIC @7 7G ENG 7G IND ENGR 7G TEC ED 1 @ 2	Semester

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Demonstrate an understanding of the societal impact of manufacturing.
- 02.0 Demonstrate an understanding of the history of manufacturing.
- 03.0 Demonstrate an understanding of the universal systems model as it relates to manufacturing.
- 04.0 Demonstrate an understanding of safe work practices while performing tasks.
- 05.0 Identify materials and resources used in manufacturing.
- 06.0 Describe the essential systems and processes involved in manufacturing.
- 07.0 Perform a pre-planned introductory manufacturing activity applying correct safety procedures, appropriate use of materials, and processing operations.
- 08.0 Use visual and verbal communication to present employment and career opportunities in manufacturing.
- 09.0 Students will select and demonstrate techniques, skills, tools, and understanding related to manufacturing.
- 10.0 Students will develop leadership and interpersonal problem-solving skills through participation in co-curricular activities.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Fundamentals of Manufacturing  
**Course Number:** 9260400  
**Course Length:** Semester

**Course Description:**

This course provides students with opportunities to become familiar with related careers and develop fundamental technological literacy as they learn about the history, systems, and processes of manufacturing. In addition, the course will provide an overview of the safe use of tools and equipment used in the industry.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate an understanding of the societal impact of manufacturing.--The student will be able to:
01.01	Track the evolution of manufacturing and its impact on society.
01.02	Explain the educational requirements and professional expectations associated with a career in manufacturing.
01.03	Describe the impact of governmental and political systems on manufacturing.
01.04	Explain the interaction between manufacturing industries and social change
01.05	Explain how manufacturing made the United States a world leader.
01.06	Describe the relationship between manufacturing and the environment
01.07	Explain the importance of a technologically literate workforce to the manufacturing industry.
02.0	Demonstrate an understanding of the history of manufacturing.--The student will be able to:
02.01	Identify key historical events and their impact on manufacturing.
02.02	List key persons who have contributed to change in manufacturing.
02.03	Describe the Industrial Revolution and its impact on manufacturing.
02.04	Identify pioneers of the manufacturing industry.
02.05	Describe/debate the affect that automation has had on manufacturing.
03.0	Demonstrate an understanding of the universal systems model as it relates to manufacturing.--The student will be able to:

## CTE Standards and Benchmarks

03.01	Describe the processes of input, processing, output, and feedback that comprise the universal systems model.
03.02	Demonstrate applications of the universal systems model in manufacturing.
03.03	Describe the role of time, capital, people, tools and machines, energy, materials, and information within the universal systems model as it applies to manufacturing industries.
04.0	Demonstrate an understanding of safe work practices while performing tasks.--The student will be able to:
04.01	Identify safety equipment.
04.02	Recognize immediate, potential, and hidden hazards.
04.03	Perform housekeeping tasks related to maintaining a safe work environment.
04.04	Pass a safety test with a perfect score prior to operating equipment.
04.05	Demonstrate the proper safe use of tools and equipment
04.06	Identify safety color codes
05.0	Identify materials and resources used in manufacturing.--The student will be able to:
05.01	Describe the seven basic technological resources.
05.02	Describe the properties of manufacturing materials.
05.03	Explain how materials are classified.
05.04	List, measure, and compare common mechanical properties of select materials.
05.05	List sources and costs where materials may be obtained
05.06	Create a bill of materials
05.07	Calculate production cost analysis
06.0	Describe the essential systems and processes involved in manufacturing.--The student will be able to:
06.01	Compare and contrast custom, intermittent, and continuous manufacturing systems.
06.02	Demonstrate fundamentals of producing technical sketches.
06.03	Create simple two and three dimensional drawings using CAD software.
06.04	List common hand tools used in the maintenance, installation, and repair of equipment.

## CTE Standards and Benchmarks

06.05	Identify commonly used power tools.
06.06	Describe primary manufacturing processes.
06.07	List secondary manufacturing processes.
06.08	Define the terms separating and forming as it relates to manufacturing.
06.09	Identify separating processes – traditional and non-traditional.
06.10	Identify forming processes including casting, molding, compression, stretching, and conditioning.
06.11	Differentiate between combining processes such as mixing, bonding, coating, and mechanical filtering.
06.12	Produce a simple part applying computer assisted production equipment.
06.13	Program a robot to perform a repetitive task.
06.14	Create a device that will perform a task using a computer controlled program.
06.15	Describe the advantages/disadvantages of the separation processing of materials using manual versus computer controlled machinery.
06.16	Describe assembling processes.
06.17	Explain the importance of finishing processes.
06.18	Describe the role of quality control in the manufacturing process.
06.19	Explain the importance of quality control within a manufacturing system.
07.0	Perform a pre-planned introductory manufacturing activity applying correct safety procedures, appropriate use of materials, and processing operations.--The student will be able to:
07.01	Use hand and power tools safely.
07.02	Demonstrate fundamentals of reading technical sketches.
07.03	Use English and/or metric measurement effectively in order to properly lay out a part for manufacturing.
07.04	Follow a production flow chart to produce a teacher-selected product.
07.05	Apply appropriate problem solving to improve an existing manufacturing system.
08.0	Use visual and verbal communication to present employment and career opportunities in manufacturing.--The student will be able to:
08.01	Present a technical report to an audience regarding a researched manufacturing related career using multimedia.

## CTE Standards and Benchmarks

08.02 Prepare and produce a portfolio representing experiences throughout the course of study.

09.0 Students will select and demonstrate techniques, skills, tools, and understanding related to manufacturing.--The student will be able to:

09.01 Use common tools correctly and safely.

09.02 Describe strategies for selecting materials and processes necessary for developing a technological system or artifact.

09.03 Demonstrate fundamental materials processing and assembly techniques.

09.04 Evaluate the interdependence of components in a technological system and identify those elements that are critical to correct functioning.

09.05 Apply analytical tools to the development of optimal solutions for technological problems.

10.0 Students will develop leadership and interpersonal problem-solving skills through participation in co-curricular activities.--The student will be able to:

10.01 Demonstrate effective communication skills.

10.02 Participate in teamwork to accomplish specified organizational goals.

10.03 Demonstrate cooperation and understanding with persons who are ethnically and culturally diverse.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

The Florida Technology Student Association (FL-TSA) is the intercurricular career and technical student organization for providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Postsecondary students with disabilities must self-identify, present documentation, request accommodations if needed, and develop a plan with their counselor and/or instructors. Accommodations received in postsecondary education may differ from those received in secondary education. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.



In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

**Florida Department of Education  
Curriculum Framework**

**Course Title:** Introduction to Marketing, Sales and Service  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Marketing, Sales and Service

**Secondary – Middle School**

Course Number	9309350
CIP Number	149309350M
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	DECA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Marketing, Sales and Service career cluster. The content includes, but is not limited to, topics related to Marketing, Sales and Service. Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
9309350	Introduction to Marketing, Sales and Service	BUS ED 1 MKTG 1 MKTG MGMT 7G	Semester

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

## **Standards**

After successfully completing this course, the student will be able to perform the following:

- 01.0 Demonstrate an understanding of the e-Marketing career pathway.
- 02.0 Demonstrate an understanding of the Professional Sales and Marketing career pathway.
- 03.0 Demonstrate an understanding of the Management and Entrepreneurship career pathway.
- 04.0 Demonstrate an understanding of the Distribution and Logistics career pathway.
- 05.0 Demonstrate an understanding of the Marketing Information Management and Research career pathway.
- 06.0 Demonstrate an understanding of the Marketing Communications and Promotion career pathway.
- 07.0 Demonstrate an understanding of the Buying and Merchandising career pathway.
- 08.0 Apply leadership and communication skills.
- 09.0 Describe how information technology is used in the Marketing, Sales and Service career cluster.
- 10.0 Use information technology tools.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Introduction to Marketing, Sales and Service  
**Course Number:** 9309350  
**Course Length:** Semester

**Course Description:**

Beginning with a broad overview of the Marketing, Sales and Service career cluster, students are introduced to the terminology, careers, history, required skills, and technologies associated with each pathway in the Marketing, Sales and Service career cluster. Additionally, they will be provided with opportunities to acquire and demonstrate beginning leadership skills and to participate in hands-on activities.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate an understanding of the e-Marketing career pathway – the student will be able to:
01.01	Define and use proper terminology associated with the e-Marketing career pathway.
01.02	Describe some of the careers available in the e-Marketing career pathway.
01.03	Identify common characteristics of the careers in the e-Marketing career pathway.
01.04	Research the history of the e-Marketing career pathway and describe how the associated careers have evolved and impacted society.
01.05	Identify skills required to successfully enter any career in the e-Marketing career pathway.
01.06	Describe technologies associated with careers in the e-Marketing career pathway.
02.0	Demonstrate an understanding of the Professional Sales and Marketing career pathway – the student will be able to:
02.01	Define and use proper terminology associated with the Professional Sales and Marketing career pathway.
02.02	Describe some of the careers available in the Professional Sales and Marketing career pathway.
02.03	Identify common characteristics of the careers in the Professional Sales and Marketing career pathway.
02.04	Research the history of the Professional Sales and Marketing career pathway and describe how the associated careers have evolved and impacted society.
02.05	Identify skills required to successfully enter any career in the Professional Sales and Marketing career pathway.
02.06	Describe technologies associated with careers in the Professional Sales and Marketing career pathway.
03.0	Demonstrate an understanding of the Management and Entrepreneurship career pathway – the student will be able to:

## CTE Standards and Benchmarks

03.01	Define and use proper terminology associated with the Management and Entrepreneurship career pathway.
03.02	Describe some of the careers available in the Management and Entrepreneurship career pathway.
03.03	Identify common characteristics of the careers in the Management and Entrepreneurship career pathway.
03.04	Research the history of the Management and Entrepreneurship career pathway and describe how the associated careers have evolved and impacted society.
03.05	Identify skills required to successfully enter any career in the Management and Entrepreneurship career pathway.
03.06	Describe technologies associated with careers in the Management and Entrepreneurship career pathway.
04.0	Demonstrate an understanding of the Distribution and Logistics career pathway – the student will be able to:
04.01	Define and use proper terminology associated with the Distribution and Logistics career pathway.
04.02	Describe some of the careers available in the Distribution and Logistics career pathway.
04.03	Identify common characteristics of the careers in the Distribution and Logistics career pathway.
04.04	Research the history of the Distribution and Logistics career pathway and describe how the associated careers have evolved and impacted society.
04.05	Identify skills required to successfully enter any career in the Distribution and Logistics career pathway.
04.06	Describe technologies associated with careers in the Distribution and Logistics career pathway.
05.0	Demonstrate an understanding of the Marketing Information Management and Research career pathway – the student will be able to:
05.01	Define and use proper terminology associated with the Marketing Information Management and Research career pathway.
05.02	Describe some of the careers available in the Marketing Information Management and Research career pathway.
05.03	Identify common characteristics of the careers in the Marketing Information Management and Research career pathway.
05.04	Research the history of the Marketing Information Management and Research career pathway and describe how the associated careers have evolved and impacted society.
05.05	Identify skills required to successfully enter any career in the Marketing Information Management and Research career pathway.
05.06	Describe technologies associated with careers in the Marketing Information Management and Research career pathway.
06.0	Demonstrate an understanding of the Marketing Communications and Promotion career pathway – the student will be able to:
06.01	Define and use proper terminology associated with the Marketing Communications and Promotion career pathway.

## CTE Standards and Benchmarks

06.02	Describe some of the careers available in the Marketing Communications and Promotion career pathway.
06.03	Identify common characteristics of the careers in the Marketing Communications and Promotion career pathway.
06.04	Research the history of the Marketing Communications and Promotion career pathway and describe how the associated careers have evolved and impacted society.
06.05	Identify skills required to successfully enter any career in the Marketing Communications and Promotion career pathway.
06.06	Describe technologies associated with careers in the Marketing Communications and Promotion career pathway.
07.0	Demonstrate an understanding of the Buying and Merchandising career pathway – the student will be able to:
07.01	Define and use proper terminology associated with the Buying and Merchandising career pathway.
07.02	Describe some of the careers available in the Buying and Merchandising career pathway.
07.03	Identify common characteristics of the careers in the Buying and Merchandising career pathway.
07.04	Research the history of the Buying and Merchandising career pathway and describe how the associated careers have evolved and impacted society.
07.05	Identify skills required to successfully enter any career in the Buying and Merchandising career pathway.
07.06	Describe technologies associated with careers in the Buying and Merchandising career pathway.
08.0	Apply leadership and communication skills – the student will be able to:
08.01	Discuss the establishment and history of the DECA organization.
08.02	Identify the characteristics and responsibilities of organizational leaders.
08.03	Demonstrate parliamentary procedure skills during a meeting.
08.04	Participate on a committee which has an assigned task and report to the class.
08.05	Demonstrate effective communication skills through delivery of a speech, a slide presentation, or by conducting a demonstration.
08.06	Use a computer to assist in the completion of project related to the Marketing, Sales and Service career cluster.
09.0	Describe how information technology is used in the Marketing, Sales and Service career cluster – the student will be able to:
09.01	Identify Information Technology (IT) careers in the Marketing, Sales and Service career cluster; include the responsibilities, tasks and skills they require.
09.02	Relate IT project management concepts and terms to careers in the Marketing, Sales and Service career cluster.

## CTE Standards and Benchmarks

09.03 Manage IT components typically used in professions of the Marketing, Sales and Service career cluster.

09.04 Identify security-related ethical and legal IT issues faced by professionals in the Marketing, Sales and Service career cluster.

10.0 Use information technology tools – the student will be able to:

10.01 Identify the functions of web browsers, and use them to access the Internet and other computer resources typically used in the Marketing Sales and Service career cluster.

10.02 Use email clients to send simple messages and files to other Internet users.

10.03 Demonstrate ways to communicate effectively using Internet technology.

10.04 Use different types of search engines effectively to locate information relevant to the Marketing Sales and Service career cluster.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career Planning**

**Effective July 1, 2019, per Section 1003.4156, Florida Statutes (F.S.), for students to meet middle grades promotion requirements, a Career and Education Planning course must be completed in either sixth, seventh, or eighth grade.** These courses should be taught integrating the eight career and education planning course standards. The MyCareerShines powered by Kuder® career planning system is available free of charge to all Florida middle and high schools to assist students in completing research-based career assessments, exploring career options and developing an online academic and career plan.

### **Career and Technical Student Organization (CTSO)**

DECA is the intercurricular career and technical student organization(s) providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Accommodations**



Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

**Florida Department of Education  
Curriculum Framework**

**Course Title:** Introduction to Marketing, Sales and Service and Career Planning  
**Course Type:** Orientation/Exploratory and Career Planning  
**Career Cluster:** Marketing, Sales and Service

<b>Secondary – Middle School</b>	
Course Number	9309360
CIP Number	149309360M
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	DECA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Marketing, Sales and Service career cluster. The content includes but is not limited to exposure to the skills and attitudes associated with a broad range of occupations relating to careers in marketing as well as reinforcement of academic skills occurs through classroom instruction and applied laboratory procedures.

Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
9309360	Introduction to Marketing, Sales and Service and Career Planning	BUS ED 1 MKTG 1 MKTG MGMT 7G	Semester

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

## **Standards**

After successfully completing this course, the student will be able to perform the following:

- 01.0 Demonstrate an understanding of the e-Marketing career pathway
- 02.0 Demonstrate an understanding of the Professional Sales and Marketing career pathway
- 03.0 Demonstrate an understanding of the Management and Entrepreneurship career pathway
- 04.0 Demonstrate an understanding of the Distribution and Logistics career pathway
- 05.0 Demonstrate an understanding of the Marketing Information Management and Research career pathway
- 06.0 Demonstrate an understanding of the Marketing Communications and Promotion career pathway
- 07.0 Demonstrate an understanding of the Buying and Merchandising career pathway
- 08.0 Apply leadership and communication skills.
- 09.0 Describe how information technology is used in the Marketing, Sales and Service career cluster.
- 10.0 Use information technology tools.

## **Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes:**

- 11.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.
- 12.0 Develop skills to locate, evaluate, and interpret career information.
- 13.0 Identify and demonstrate processes for making short and long term goals.
- 14.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
- 15.0 Understand the relationship between educational achievement and career choices/postsecondary options.
- 16.0 Identify a career cluster and related pathways through an interest assessment that match career and education goals.
- 17.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
- 18.0 Demonstrate knowledge of technology and its application in career fields/clusters.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Introduction to Marketing, Sales and Service and Career Planning  
**Course Number:** 9309360  
**Course Length:** Semester

**Course Description:**

Beginning with a broad overview of the Marketing, Sales and Service career cluster, students are introduced to the terminology, careers, history, required skills, and technologies associated with each pathway in the Marketing, Sales and Service career cluster. Additionally, they will be provided with opportunities to acquire and demonstrate beginning leadership skills and participate in hands-on activities.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate an understanding of the e-Marketing career pathway – the student will be able to:
01.01	Define and use proper terminology associated with the e-Marketing career pathway.
01.02	Describe some of the careers available in the e-Marketing career pathway.
01.03	Identify common characteristics of the careers in the e-Marketing career pathway.
01.04	Research the history of the e-Marketing career pathway and describe how the associated careers have evolved and impacted society.
01.05	Identify skills required to successfully enter any career in the e-Marketing career pathway.
01.06	Describe technologies associated with careers in the e-Marketing career pathway.
02.0	Demonstrate an understanding of the Professional Sales and Marketing career pathway – the student will be able to:
02.01	Define and use proper terminology associated with the Professional Sales and Marketing career pathway.
02.02	Describe some of the careers available in the Professional Sales and Marketing career pathway.
02.03	Identify common characteristics of the careers in the Professional Sales and Marketing career pathway.
02.04	Research the history of the Professional Sales and Marketing career pathway and describe how the associated careers have evolved and impacted society.
02.05	Identify skills required to successfully enter any career in the Professional Sales and Marketing career pathway.
02.06	Describe technologies associated with careers in the Professional Sales and Marketing career pathway.
03.0	Demonstrate an understanding of the Management and Entrepreneurship career pathway – the student will be able to:

## CTE Standards and Benchmarks

03.01	Define and use proper terminology associated with the Management and Entrepreneurship career pathway.
03.02	Describe some of the careers available in the Management and Entrepreneurship career pathway.
03.03	Identify common characteristics of the careers in the Management and Entrepreneurship career pathway.
03.04	Research the history of the Management and Entrepreneurship career pathway and describe how the associated careers have evolved and impacted society.
03.05	Identify skills required to successfully enter any career in the Management and Entrepreneurship career pathway.
03.06	Describe technologies associated with careers in the Management and Entrepreneurship career pathway.
04.0	Demonstrate an understanding of the Distribution and Logistics career pathway – the student will be able to:
04.01	Define and use proper terminology associated with the Distribution and Logistics career pathway.
04.02	Describe some of the careers available in the Distribution and Logistics career pathway.
04.03	Identify common characteristics of the careers in the Distribution and Logistics career pathway.
04.04	Research the history of the Distribution and Logistics career pathway and describe how the associated careers have evolved and impacted society.
04.05	Identify skills required to successfully enter any career in the Distribution and Logistics career pathway.
04.06	Describe technologies associated with careers in the Distribution and Logistics career pathway.
05.0	Demonstrate an understanding of the Marketing Information Management and Research career pathway – the student will be able to:
05.01	Define and use proper terminology associated with the Marketing Information Management and Research career pathway.
05.02	Describe some of the careers available in the Marketing Information Management and Research career pathway.
05.03	Identify common characteristics of the careers in the Marketing Information Management and Research career pathway.
05.04	Research the history of the Marketing Information Management and Research career pathway and describe how the associated careers have evolved and impacted society.
05.05	Identify skills required to successfully enter any career in the Marketing Information Management and Research career pathway.
05.06	Describe technologies associated with careers in the Marketing Information Management and Research career pathway.
06.0	Demonstrate an understanding of the Marketing Communications and Promotion career pathway – the student will be able to:
06.01	Define and use proper terminology associated with the Marketing Communications and Promotion career pathway.

## CTE Standards and Benchmarks

06.02	Describe some of the careers available in the Marketing Communications and Promotion career pathway.
06.03	Identify common characteristics of the careers in the Marketing Communications and Promotion career pathway.
06.04	Research the history of the Marketing Communications and Promotion career pathway and describe how the associated careers have evolved and impacted society.
06.05	Identify skills required to successfully enter any career in the Marketing Communications and Promotion career pathway.
06.06	Describe technologies associated with careers in the Marketing Communications and Promotion career pathway.
07.0	Demonstrate an understanding of the Buying and Merchandising career pathway – the student will be able to:
07.01	Define and use proper terminology associated with the Buying and Merchandising career pathway.
07.02	Describe some of the careers available in the Buying and Merchandising career pathway.
07.03	Identify common characteristics of the careers in the Buying and Merchandising career pathway.
07.04	Research the history of the Buying and Merchandising career pathway and describe how the associated careers have evolved and impacted society.
07.05	Identify skills required to successfully enter any career in the Buying and Merchandising career pathway.
07.06	Describe technologies associated with careers in the Buying and Merchandising career pathway.
08.0	Apply leadership and communication skills – the student will be able to:
08.01	Discuss the establishment and history of the DECA organization.
08.02	Identify the characteristics and responsibilities of organizational leaders.
08.03	Demonstrate parliamentary procedure skills during a meeting.
08.04	Participate on a committee which has an assigned task and report to the class.
08.05	Demonstrate effective communication skills through delivery of a speech, a slide presentation, or by conducting a demonstration.
08.06	Use a computer to assist in the completion of project related to the Marketing, Sales and Service career cluster.
09.0	Describe how information technology is used in the Marketing, Sales and Service career cluster – the student will be able to:
09.01	Identify Information Technology (IT) careers in the Marketing, Sales and Service career cluster; include the responsibilities, tasks and skills required.
09.02	Relate IT project management concepts and terms to careers in the Marketing, Sales and Service career cluster.

## CTE Standards and Benchmarks

09.03 Manage IT components typically used in professions of the Marketing, Sales and Service career cluster.

09.04 Identify security-related ethical and legal IT issues faced by professionals in the Marketing, Sales and Service career cluster.

10.0 Use information technology tools – the student will be able to:

09.01 Identify the functions of web browsers, and use them to access the Internet and other computer resources typically used in the Marketing, Sales and Service career cluster.

09.02 Use email clients to send simple messages and files to other Internet users.

09.03 Demonstrate ways to communicate effectively using Internet technology.

09.04 Use different types of web search engines effectively to locate information relevant to the Marketing, Sales and Service career cluster.

### **Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes.**

The student will be able to:

11.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.

12.0 Develop skills to locate, evaluate, and interpret career information.

13.0 Identify and demonstrate processes for making short and long term goals.

14.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills.

15.0 Understand the relationship between educational achievement and career choices/postsecondary options.

16.0 Identify a career cluster and related pathways that match career and education goals.

17.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.

18.0 Demonstrate knowledge of technology and its application in career fields/clusters.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

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English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career Planning**

**Effective July 1, 2019, per Section 1003.4156, Florida Statutes (F.S.), for students to meet middle grades promotion requirements, a Career and Education Planning course must be completed in either sixth, seventh, or eighth grade.** These courses should be taught integrating the eight career and education planning course standards. The MyCareerShines powered by Kuder® career planning system is available free of charge to all Florida middle and high schools to assist students in completing research-based career assessments, exploring career options and developing an online academic and career plan.

### **Career and Technical Student Organization (CTSO)**

DECA is are the intercurricular career and technical student organization(s) providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Accommodations**



Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Course Title:** Fundamentals of Marketing Occupations  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Marketing, Sales and Service

**Secondary – Middle School**

Course Number	9380300
CIP Number	149380300M
Grade Level	6-8
Standard Length	Year
Teacher Certification	Refer to the <b><u>Course Structure</u></b> section.
CTSO	DECA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding academic and occupational goals and to provide information regarding careers in the Marketing, Sales and Service career cluster. The content includes, but is not limited to, topics related to Marketing, Sales and Service.

Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Course Structure**

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
9380300	Fundamentals of Marketing Occupations	BUS ED 1 MKTG 1 MKTG MGMT 7G	Year

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

## **Standards**

After successfully completing this course, the student will be able to perform the following:

- 01.0 Demonstrate an understanding of the e-Marketing career pathway.
- 02.0 Demonstrate an understanding of the Professional Sales and Marketing career pathway.
- 03.0 Demonstrate an understanding of the Management and Entrepreneurship career pathway.
- 04.0 Demonstrate an understanding of the Distribution and Logistics career pathway.
- 05.0 Demonstrate an understanding of the Marketing Information Management and Research career pathway.
- 06.0 Demonstrate an understanding of the Marketing Communications and Promotion career pathway.
- 07.0 Demonstrate an understanding of the Buying and Merchandising career pathway.
- 08.0 Apply leadership and communication skills.
- 09.0 Identify components of network systems.
- 10.0 Describe and use communication features of information technology.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Fundamentals of Marketing Occupations  
**Course Number:** 9380300  
**Course Length:** Semester

**Course Description:**

Beginning with a broad overview of the Marketing, Sales and Service career cluster, students are introduced to the terminology, careers, history, required skills, and technologies associated with each pathway in the Marketing, Sales and Service career cluster. Additionally, they will be provided with opportunities to acquire and demonstrate beginning leadership skills and participate in hands-on activities.

<b>CTE Standards and Benchmarks</b>	
01.0	Demonstrate an understanding of the e-Marketing career pathway – the student will be able to:
01.01	Define and use the terminology associated with the e-Marketing career pathway.
01.02	Describe the careers available in the e-Marketing career pathway.
01.03	Identify common characteristics of careers in the e-Marketing career pathway.
01.04	Research the history of the e-Marketing career pathway; describe how the associated careers have evolved and impacted society.
01.05	Identify the skills required to successfully enter any career in the e-Marketing career pathway.
01.06	Describe the technologies associated with careers in the e-Marketing career pathway.
02.0	Demonstrate an understanding of the Professional Sales and Marketing career pathway – the student will be able to:
02.01	Define and use the terminology associated with the Professional Sales and Marketing career pathway.
02.02	Describe the careers available in the Professional Sales and Marketing career pathway.
02.03	Identify common characteristics of careers in the Professional Sales and Marketing career pathway.
02.04	Research the history of the Professional Sales and Marketing career pathway; describe how the associated careers have evolved and impacted society.
02.05	Identify the skills required to successfully enter any career in the Professional Sales and Marketing career pathway.
02.06	Describe the technologies associated with careers in the Professional Sales and Marketing career pathway.
03.0	Demonstrate an understanding of the Management and Entrepreneurship career pathway – the student will be able to:

## CTE Standards and Benchmarks

03.01	Define and use terminology associated with the Management and Entrepreneurship career pathway.
03.02	Describe the careers available in the Management and Entrepreneurship career pathway.
03.03	Identify common characteristics of careers in the Management and Entrepreneurship career pathway.
03.04	Research the history of the Management and Entrepreneurship career pathway; and describe how the associated careers have evolved and impacted society.
03.05	Identify the skills required to successfully enter any career in the Management and Entrepreneurship career pathway.
03.06	Describe the technologies associated with careers in the Management and Entrepreneurship career pathway.
04.0	Demonstrate an understanding of the Distribution and Logistics career pathway – the student will be able to:
04.01	Define and use the terminology associated with the Distribution and Logistics career pathway.
04.02	Describe the careers available in the Distribution and Logistics career pathway.
04.03	Identify common characteristics of careers in the Distribution and Logistics career pathway.
04.04	Research the history of the Distribution and Logistics career pathway; describe how the associated careers have evolved and impacted society.
04.05	Identify the skills required to successfully enter any career in the Distribution and Logistics career pathway.
04.06	Describe the technologies associated with careers in the Distribution and Logistics career pathway.
05.0	Demonstrate an understanding of the Marketing Information Management and Research career pathway – the student will be able to:
05.01	Define and use the terminology associated with the Marketing Information Management and Research career pathway.
05.02	Describe the careers available in the Marketing Information Management and Research career pathway.
05.03	Identify common characteristics of careers in the Marketing Information Management and Research career pathway.
05.04	Research the history of the Marketing Information Management and Research career pathway; describe how the associated careers have evolved and impacted society.
05.05	Identify the skills required to successfully enter any career in the Marketing Information Management and Research career pathway.
05.06	Describe the technologies associated with careers in the Marketing Information Management and Research career pathway.
06.0	Demonstrate an understanding of the Marketing Communications and Promotion career pathway – the student will be able to:
06.01	Define and use the terminology associated with the Marketing Communications and Promotion career pathway.

## CTE Standards and Benchmarks

06.02	Describe the careers available in the Marketing Communications and Promotion career pathway.
06.03	Identify common characteristics of careers in the Marketing Communications and Promotion career pathway.
06.04	Research the history of the Marketing Communications and Promotion career pathway; describe how the associated careers have evolved and impacted society.
06.05	Identify the skills required to successfully enter any career in the Marketing Communications and Promotion career pathway.
06.06	Describe the technologies associated with careers in the Marketing Communications and Promotion career pathway.
07.0	Demonstrate an understanding of the Buying and Merchandising career pathway – the student will be able to:
07.01	Define and use the terminology associated with the Buying and Merchandising career pathway.
07.02	Describe the careers available in the Buying and Merchandising career pathway.
07.03	Identify common characteristics of careers in the Buying and Merchandising career pathway.
07.04	Research the history of the Buying and Merchandising career pathway; describe how the associated careers have evolved and impacted society.
07.05	Identify the skills required to successfully enter any career in the Buying and Merchandising career pathway.
07.06	Describe the technologies associated with careers in the Buying and Merchandising career pathway.
08.0	Apply leadership and communication skills – the student will be able to:
08.01	Discuss the establishment and history of the DECA organization.
08.02	Identify the characteristics and responsibilities of organizational leaders.
08.03	Demonstrate parliamentary procedure skills during a meeting.
08.04	Participate on a committee which has an assigned task and report to the class.
08.05	Demonstrate effective communication skills through delivery of a speech, a slide presentation, or by conducting a demonstration.
08.06	Use a computer to assist in the completion of project related to the Marketing, Sales and Service career cluster.
09.0	Identify components of network systems – the student will be able to:
09.01	Identify basic hardware and software components.
09.02	Identify and configure user customization features in web browsers; include preferences, caching, and cookies.
09.03	Recognize essential database concepts.

## CTE Standards and Benchmarks

09.04 Define and use networking and Internet services.

10.0 Describe and use communication features of information technology – the student will be able to

10.01 Define important Internet communications protocols and their roles in delivering basic Internet services.

10.02 Identify basic principles of the Domain Name System (DNS).

10.03 Identify security issues related to Internet clients.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career Planning**

**Effective July 1, 2019, per Section 1003.4156, Florida Statutes (F.S.), for students to meet middle grades promotion requirements, a Career and Education Planning course must be completed in either sixth, seventh, or eighth grade.** These courses should be taught integrating the eight career and education planning course standards. The MyCareerShines powered by Kuder® career planning system is available free of charge to all Florida middle and high schools to assist students in completing research-based career assessments, exploring career options and developing an online academic and career plan.

### **Career and Technical Student Organization (CTSO)**

DECA is the intercurricular career and technical student organization(s) providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Accommodations**



Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Course Title:** Introduction to Transportation, Distribution and Logistics  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Transportation, Distribution and Logistics

**Secondary – Middle School**

Course Number	9590350
CIP Number	149590350M
Grade Level	6 – 8
Standard Length	Semester
Teacher Certification	Refer to the <b>Course Structure</b> section.
CTSO	FL-TSA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the transportation, distribution and logistics career cluster. This includes but is not limited to coherent and rigorous content aligned with the challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and careers in the transportation, distribution and logistics career cluster; providing technical skill proficiency, and competency-based applied learning that contributes to the academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, general employability skills, technical skills, and occupation-specific skills, and knowledge of all aspects of the transportation, distribution and logistics career cluster. Reinforcement of academic skills occurs through classroom instruction and applied laboratory procedures. Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
9590350	Introduction to Transportation, Distribution and Logistics	AEROSPACE 7G AIR MECH @7 7G AUTO MECH @7 7G DIESEL MECH @7 7G GASENG RPR @7 7G LOG TECH 7G TEC ED 1 @2 ENG&TEC ED1@2 TRANSPORT 7G	Semester

## **Standards**

After successfully completing this course, the student will be able to perform the following:

- 01.0 Demonstrate an understanding of the Transportation Operations career pathway.
- 02.0 Demonstrate an understanding of the Logistics Planning and Management Services career pathway.
- 03.0 Demonstrate an understanding of the Warehousing and Distribution Center Operations career pathway.
- 04.0 Demonstrate an understanding of the Facility and Mobile Equipment Maintenance career pathway.
- 05.0 Demonstrate an understanding of the Transportation Systems/Infrastructure Planning, Management and Regulation career pathway.
- 06.0 Demonstrate an understanding of the Health, Safety and Environmental Management career pathway.
- 07.0 Demonstrate an understanding of the Sales and Service career pathway.
- 08.0 Apply leadership and communication skills.
- 09.0 Describe how information technology is used in the Transportation, Distribution and Logistics career cluster.
- 10.0 Use information technology tools.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Introduction to Transportation, Distribution and Logistics  
**Course Number:** 9590350  
**Course Length:** Semester

**Course Description:**

Beginning with a broad overview of the Transportation, Distribution and Logistics career cluster, students are introduced to the terminology, careers, history, required skills, and technologies associated with each pathway in the Transportation, Distribution and Logistics career cluster. Additionally, they will be provided with opportunities to acquire and demonstrate beginning leadership skills.

<b>CTE Standards and Benchmarks</b>	
<b>01.0</b>	Demonstrate an understanding of the Transportation Operations career pathway.--The student will be able to:
01.01	Define and use proper terminology associated with the Transportation Operations career pathway.
01.02	Describe some of the careers available in the Transportation Operations career pathway.
01.03	Identify common characteristics of the careers in the Transportation Operations career pathway.
01.04	Research the history of the Transportation Operations career pathway and describe how the associated careers have evolved and impacted society.
01.05	Identify skills required to successfully enter any career in the Transportation Operations career pathway.
01.06	Describe technologies associated in careers within the Transportation Operations career pathway.
<b>02.0</b>	Demonstrate an understanding of the Logistics Planning and Management Services career pathway.--The student will be able to:
02.01	Define and use proper terminology associated with the Logistics Planning and Management Services career pathway.
02.02	Describe some of the careers available in the Logistics Planning and Management Services career pathway.
02.03	Identify common characteristics of the careers in the Logistics Planning and Management Services career pathway.
02.04	Research the history of the Logistics Planning and Management Services career pathway and describe how the careers have evolved and impacted society.
02.05	Identify skills required to successfully enter any career in the Logistics Planning and Management Services career pathway.
02.06	Describe technologies associated in careers within the Logistics Planning and Management Services career pathway.
<b>03.0</b>	Demonstrate an understanding of the Warehousing and Distribution Center Operations career pathway.--The student will be able to:
03.01	Define and use proper terminology associated with the Warehousing and Distribution Center Operations career pathway.
03.02	Describe some of the careers available in the Warehousing and Distribution Center Operations career pathway.
03.03	Identify common characteristics of the careers in the Warehousing and Distribution Center Operations career pathway.

## CTE Standards and Benchmarks

03.04	Research the history of the Warehousing and Distribution Center Operations career pathway and describe how the careers have evolved and impacted society.
03.05	Identify skills required to successfully enter any career in the Warehousing and Distribution Center Operations career pathway.
03.06	Describe technologies associated in careers within the Warehousing and Distribution Center Operations career pathway.
04.0	Demonstrate an understanding of the Facility and Mobile Equipment Maintenance career pathway.--The student will be able to:
04.01	Define and use proper terminology associated with the Facility and Mobile Equipment Maintenance career pathway.
04.02	Describe some of the careers available in the Facility and Mobile Equipment Maintenance career pathway.
04.03	Identify common characteristics of the careers in the Facility and Mobile Equipment Maintenance career pathway.
04.04	Research the history of the Facility and Mobile Equipment Maintenance career pathway and describe how the careers have evolved and impacted society.
04.05	Identify skills required to successfully enter any career in the Facility and Mobile Equipment Maintenance career pathway.
04.06	Describe technologies associated in careers within the Facility and Mobile Equipment Maintenance career pathway.
05.0	Demonstrate an understanding of the Transportation Systems/Infrastructure Planning, Management and Regulation career pathway.--The student will be able to:
05.01	Define and use proper terminology associated with the Transportation Systems/Infrastructure Planning, Management and Regulation career pathway.
05.02	Describe some of the careers available in the Transportation Systems/Infrastructure Planning, Management and Regulation career pathway.
05.03	Identify common characteristics of the careers in the Transportation Systems/Infrastructure Planning, Management and Regulation career pathway.
05.04	Research the history of the Transportation Systems/Infrastructure Planning, Management and Regulation career pathway and describe how the careers have evolved and impacted society.
05.05	Identify skills required to successfully enter any career in the Transportation Systems/Infrastructure Planning, Management and Regulation career pathway.
05.06	Describe technologies associated in careers within the Transportation Systems/Infrastructure Planning, Management and Regulation career pathway.
06.0	Demonstrate an understanding of the Health, Safety and Environmental Management career pathway.--The student will be able to:
06.01	Define and use proper terminology associated with the Health, Safety and Environmental Management career pathway.
06.02	Describe some of the careers available in the Health, Safety and Environmental Management career pathway.
06.03	Identify common characteristics of the careers in the Health, Safety and Environmental Management career pathway.
06.04	Research the history of the Health, Safety and Environmental Management career pathway and describe how the careers have evolved and impacted society.
06.05	Identify skills required to successfully enter any career in the Health, Safety and Environmental Management career pathway.
06.06	Describe technologies associated in careers within the Health, Safety and Environmental Management career pathway.

## CTE Standards and Benchmarks

07.0 Demonstrate an understanding of the Sales and Service career pathway.--The student will be able to:

07.01 Define and use proper terminology associated with the Sales and Service career pathway.

07.02 Describe some of the careers available in the Sales and Service career pathway.

07.03 Identify common characteristics of the careers in the Sales and Service career pathway.

07.04 Research the history of the Sales and Service career pathway and describe how the careers have evolved and impacted society.

07.05 Identify skills required to successfully enter any career in the Sales and Service career pathway.

07.06 Describe technologies associated in careers within the Sales and Service career pathway.

08.0 Apply leadership and communication skills.--The student will be able to:

08.01 Discuss the establishment and history of the FL-TSA organization.

08.02 Identify the characteristics and responsibilities of organizational leaders.

08.03 Demonstrate parliamentary procedure skills during a meeting.

08.04 Participate on a committee which has an assigned task and report to the class.

08.05 Demonstrate effective communication skills through delivery of a speech, a slide presentation, or conducting a demonstration.

08.06 Use a computer to assist in the completion of a project related to the Transportation, Distribution and Logistics career cluster.

09.0 Describe how information technology is used in the Transportation, Distribution and Logistics career cluster.--The student will be able to:

09.01 Identify information technology (IT) careers in the Transportation, Distribution and Logistics career cluster, including the responsibilities, tasks and skills they require.

09.02 Relate information technology project management concepts and terms to careers in the Transportation, Distribution and Logistics career cluster.

09.03 Manage information technology components typically used in professions of the Transportation, Distribution and Logistics career cluster.

09.04 Identify security-related ethical and legal IT issues faced by professionals in the transportation, distribution and logistics career cluster.

10.0 Use information technology tools.--The student will be able to:

10.01 Identify the functions of web browsers, and use them to access the World Wide Web and other computer resources typically used in the transportation, distribution and logistics career cluster.

10.02 Use e-mail clients to send simple messages and files to other Internet users.

10.03 Demonstrate ways to communicate effectively using Internet technology.

10.04 Use different types of web search engines effectively to locate information relevant to the transportation, distribution and logistics career cluster.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

The Florida Technology Student Association (FL-TSA) is the intercurricular career and technical student organization for providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Postsecondary students with disabilities must self-identify, present documentation, request accommodations if needed, and develop a plan with their counselor and/or instructors. Accommodations received in postsecondary education may differ from those received in secondary education. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.



In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Course Title:** Introduction to Transportation, Distribution and Logistics and Career Planning\*  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Transportation, Distribution and Logistics

**Secondary – Middle School**

Course Number	9590360
CIP Number	149590360M
Grade Level	6 – 8
Standard Length	Semester
Teacher Certification	Refer to the <b>Course Structure</b> section.
CTSO	FL-TSA

\*Effective July 1, 2017, there is no longer a promotion requirement for middle grades students to complete a Career and Education Planning course. However, these courses will continue to be available and should be taught integrating the eight career and education planning course standards. The MyCareerShines powered by Kuder® career planning system is available free of charge to all Florida middle and high schools to assist students in exploring career options and developing an academic and career plan.

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the transportation, distribution and logistics career cluster. This includes but is not limited to coherent and rigorous content aligned with the challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and careers in the transportation, distribution and logistics career cluster; providing technical skill proficiency, and competency-based applied learning that contributes to the academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, general employability skills, technical skills, and occupation-specific skills, and knowledge of all aspects of the transportation, distribution and logistics career cluster. Reinforcement of academic skills occurs through classroom instruction and applied laboratory procedures. Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

## Course Structure

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
9590360	Introduction to Transportation, Distribution and Logistics and Career Planning	AEROSPACE 7G AIR MECH @7 7G AUTO MECH @7 7G DIESEL MECH @7 7G GASENG RPR @7 7G LOG TECH 7G TEC ED 1 @2 ENG&TEC ED1@2 TRANSPORT 7G	Semester

## **Standards**

### **After successfully completing this program, the student will be able to perform the following:**

- 01.0 Demonstrate an understanding of the Transportation Operations career pathway.
- 02.0 Demonstrate an understanding of the Logistics Planning and Management Services career pathway.
- 03.0 Demonstrate an understanding of the Warehousing and Distribution Center Operations career pathway.
- 04.0 Demonstrate an understanding of the Facility and Mobile Equipment Maintenance career pathway.
- 05.0 Demonstrate an understanding of the Transportation Systems/Infrastructure Planning, Management and Regulation career pathway.
- 06.0 Demonstrate an understanding of the Health, Safety and Environmental Management career pathway.
- 07.0 Demonstrate an understanding of the Sales and Service career pathway.
- 08.0 Apply leadership and communication skills.
- 09.0 Describe how information technology is used in the Transportation, Distribution and Logistics career cluster.
- 10.0 Use information technology tools.

### **Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes.**

- 11.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.
- 12.0 Develop skills to locate, evaluate, and interpret career information.
- 13.0 Identify and demonstrate processes for making short and long term goals.
- 14.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
- 15.0 Understand the relationship between educational achievement and career choices/postsecondary options.
- 16.0 Identify a career cluster and related pathways through an interest assessment that match career and education goals.
- 17.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.
- 18.0 Demonstrate knowledge of technology and its application in career fields/clusters.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Introduction to Transportation, Distribution and Logistics and Career Planning  
**Course Number:** 9590360  
**Course Length:** Semester

**Course Description:**

Beginning with a broad overview of the transportation, distribution and logistics career cluster, students are introduced to the terminology, careers, history, required skills, and technologies associated with each pathway in the Transportation, Distribution and Logistics career cluster. Additionally, they will be provided with opportunities to acquire and demonstrate beginning leadership skills.

<b>CTE Standards and Benchmarks</b>	
<b>01.0</b>	Demonstrate an understanding of the Transportation Operations career pathway.--The student will be able to:
01.01	Define and use proper terminology associated with the Transportation Operations career pathway.
01.02	Describe some of the careers available in the Transportation Operations career pathway.
01.03	Identify common characteristics of the careers in the Transportation Operations career pathway.
01.04	Research the history of the Transportation Operations career pathway and describe how the associated careers have evolved and impacted society.
01.05	Identify skills required to successfully enter any career in the Transportation Operations career pathway.
01.06	Describe technologies associated in careers within the Transportation Operations career pathway.
<b>02.0</b>	Demonstrate an understanding of the Logistics Planning and Management Services career pathway.--The student will be able to:
02.01	Define and use proper terminology associated with the Logistics Planning and Management Services career pathway.
02.02	Describe some of the careers available in the Logistics Planning and Management Services career pathway.
02.03	Identify common characteristics of the careers in the Logistics Planning and Management Services career pathway.
02.04	Research the history of the Logistics Planning and Management Services career pathway and describe how the careers have evolved and impacted society.
02.05	Identify skills required to successfully enter any career in the Logistics Planning and Management Services career pathway.
02.06	Describe technologies associated in careers within the Logistics Planning and Management Services career pathway.
<b>03.0</b>	Demonstrate an understanding of the Warehousing and Distribution Center Operations career pathway.--The student will be able to:
03.01	Define and use proper terminology associated with the Warehousing and Distribution Center Operations career pathway.

## CTE Standards and Benchmarks

03.02	Describe some of the careers available in the Warehousing and Distribution Center Operations career pathway.
03.03	Identify common characteristics of the careers in the Warehousing and Distribution Center Operations career pathway.
03.04	Research the history of the Warehousing and Distribution Center Operations career pathway and describe how the careers have evolved and impacted society.
03.05	Identify skills required to successfully enter any career in the Warehousing and Distribution Center Operations career pathway.
03.06	Describe technologies associated in careers within the Warehousing and Distribution Center Operations career pathway.
04.0	Demonstrate an understanding of the Facility and Mobile Equipment Maintenance career pathway.--The student will be able to:
04.01	Define and use proper terminology associated with the Facility and Mobile Equipment Maintenance career pathway.
04.02	Describe some of the careers available in the Facility and Mobile Equipment Maintenance career pathway.
04.03	Identify common characteristics of the careers in the Facility and Mobile Equipment Maintenance career pathway.
04.04	Research the history of the Facility and Mobile Equipment Maintenance career pathway and describe how the careers have evolved and impacted society.
04.05	Identify skills required to successfully enter any career in the Facility and Mobile Equipment Maintenance career pathway.
04.06	Describe technologies associated in careers within the Facility and Mobile Equipment Maintenance career pathway.
05.0	Demonstrate an understanding of the Transportation Systems/Infrastructure Planning, Management and Regulation career pathway.--The student will be able to:
05.01	Define and use proper terminology associated with the Transportation Systems/Infrastructure Planning, Management and Regulation career pathway.
05.02	Describe some of the careers available in the Transportation Systems/Infrastructure Planning, Management and Regulation career pathway.
05.03	Identify common characteristics of the careers in the Transportation Systems/Infrastructure Planning, Management and Regulation career pathway.
05.04	Research the history of the Transportation Systems/Infrastructure Planning, Management and Regulation career pathway and describe how the careers have evolved and impacted society.
05.05	Identify skills required to successfully enter any career in the Transportation Systems/Infrastructure Planning, Management and Regulation career pathway.
05.06	Describe technologies associated in careers within the Transportation Systems/Infrastructure Planning, Management and Regulation career pathway.
06.0	Demonstrate an understanding of the Health, Safety and Environmental Management career pathway.--The student will be able to:
06.01	Define and use proper terminology associated with the Health, Safety and Environmental Management career pathway.
06.02	Describe some of the careers available in the Health, Safety and Environmental Management career pathway.
06.03	Identify common characteristics of the careers in the Health, Safety and Environmental Management career pathway.
06.04	Research the history of the Health, Safety and Environmental Management career pathway and describe how the careers have evolved and impacted society.

## CTE Standards and Benchmarks

06.05	Identify skills required to successfully enter any career in the Health, Safety and Environmental Management career pathway.
06.06	Describe technologies associated in careers within the Health, Safety and Environmental Management career pathway.
07.0	Demonstrate an understanding of the Sales and Service career pathway.--The student will be able to:
07.01	Define and use proper terminology associated with the Sales and Service career pathway.
07.02	Describe some of the careers available in the Sales and Service career pathway.
07.03	Identify common characteristics of the careers in the Sales and Service career pathway.
07.04	Research the history of the Sales and Service career pathway and describe how the careers have evolved and impacted society.
07.05	Identify skills required to successfully enter any career in the Sales and Service career pathway.
07.06	Describe technologies associated in careers within the Sales and Service career pathway.
08.0	Apply leadership and communication skills.--The student will be able to:
08.01	Discuss the establishment and history of the FL-TSA organization.
08.02	Identify the characteristics and responsibilities of organizational leaders.
08.03	Demonstrate parliamentary procedure skills during a meeting.
08.04	Participate on a committee which has an assigned task and report to the class.
08.05	Demonstrate effective communication skills through delivery of a speech, a slide presentation, or conducting a demonstration.
08.06	Use a computer to assist in the completion of a project related to the Transportation, Distribution and Logistics career cluster.
09.0	Describe how information technology is used in the Transportation, Distribution and Logistics career cluster.--The student will be able to:
09.01	Identify information technology (IT) careers in the Transportation, Distribution and Logistics career cluster, including the responsibilities, tasks and skills they require.
09.02	Relate information technology project management concepts and terms to careers in the Transportation, Distribution and Logistics career cluster.
09.03	Manage information technology components typically used in professions of the Transportation, Distribution and Logistics career cluster.
09.04	Identify security-related ethical and legal IT issues faced by professionals in the Transportation, Distribution and Logistics career cluster.
10.0	Use information technology tools.--The student will be able to:
10.01	Identify the functions of web browsers, and use them to access the World Wide Web and other computer resources typically used in the Transportation, Distribution and Logistics career cluster.
10.02	Use e-mail clients to send simple messages and files to other Internet users.
10.03	Demonstrate ways to communicate effectively using Internet technology.

## CTE Standards and Benchmarks

10.04 Use different types of web search engines effectively to locate information relevant to the Transportation, Distribution and Logistics career cluster.

### **Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes.**

The student will be able to:

11.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.

12.0 Develop skills to locate, evaluate, and interpret career information.

13.0 Identify and demonstrate processes for making short and long term goals.

14.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.

15.0 Understand the relationship between educational achievement and career choices/postsecondary options.

16.0 Identify a career cluster and related pathways through an interest assessment that match career and education goals.

17.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.

18.0 Demonstrate knowledge of technology and its application in career fields/clusters.



## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career Planning**

**Effective July 1, 2019, per Section 1003.4156, Florida Statutes (F.S.), for students to meet middle grades promotion requirements, a Career and Education Planning course must be completed in either sixth, seventh, or eighth grade.** These courses should be taught integrating the eight career and education planning course standards. The MyCareerShines powered by Kuder® career planning system is available free of charge to all Florida middle and high schools to assist students in completing research-based career assessments, exploring career options and developing an online academic and career plan.

### **Career and Technical Student Organization (CTSO)**

The Florida Technology Student Association (FL-TSA) is the intercurricular career and technical student organization for providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

## **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Course Title:** Fundamentals of Transportation  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Transportation, Distribution and Logistics

**Secondary – Middle School**

Course Number	9590400
CIP Number	149590400M
Grade Level	6 – 8
Standard Length	Semester
Teacher Certification	Refer to the <b>Course Structure</b> section.
CTSO	FL-TSA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the transportation, distribution and logistics career cluster. This course provides students with opportunities to become familiar with related careers and develop fundamental technological literacy as they learn about the history, systems, and processes of transportation. In addition, the course will provide an overview of the safe use of tools and equipment used in the industry. Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course(s) listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
9590400	Fundamentals of Transportation	AEROSPACE 7G AIR MECH @7 7G AUTO MECH @7 7G DIESEL MECH @7 7G GASENG RPR @7 7G LOG TECH 7G TEC ED 1 @2 ENG&TEC ED1@2 TRANSPORT 7G	Semester

## **Standards**

After successfully completing this course, the student will be able to perform the following:

- 01.0 Demonstrate an understanding of the societal impact of transportation.
- 02.0 Research the history of the transportation industry.
- 03.0 Demonstrate knowledge of service publications by selecting the correct source and locating information found in each.
- 04.0 Demonstrate an understanding of the major components of ground, air and maritime transportation vehicles.
- 05.0 Demonstrate knowledge of safety, OSHA, EPA issues and procedures.
- 06.0 Identify and measure fasteners used in the aerospace, ground and maritime transportation industry.
- 07.0 Identify, select and use the proper tool for a given fastener or job.
- 08.0 Identify and measure components of an engine used in the aerospace, ground and maritime transportation industry.
- 09.0 Inspect an aerospace, ground and maritime transportation vehicle for maintenance needed for safe operation.
- 10.0 Demonstrate an understanding of basic electricity and electronics.
- 11.0 Demonstrate knowledge of current and alternative fuel sources.
- 12.0 Use visual and verbal communication to present employment and career opportunities in transportation
- 13.0 Students will develop leadership and interpersonal problem-solving skills through participation in co-curricular activities.
- 14.0 Identify components of network systems.
- 15.0 Describe and use communication features of information technology.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Fundamentals of Transportation  
**Course Number:** 9590400  
**Course Length:** Semester

**Course Description:**

This course provides students with opportunities to become familiar with related careers and develop fundamental technological literacy as they learn about the history, systems, and processes of transportation. In addition, the course will provide an overview of the safe use of tools and equipment used in the industry.

<b>CTE Standards and Benchmarks</b>	
<b>01.0</b>	Demonstrate an understanding of the societal impact of transportation.--The student will be able to:
01.01	Track the evolution of transportation and its impact on society.
01.02	Explain the educational requirements and professional expectations associated with a career in transportation.
01.03	Describe the impact of governmental and political systems on transportation.
01.04	Explain the interaction between transportation industries and social change.
01.05	Explain how transportation made the United States a world leader.
01.06	Describe the relationship between transportation and the environment.
01.07	Explain the importance of a technologically literate workforce to the transportation industry.
<b>02.0</b>	Research the history of the transportation industry.--The student will be able to:
02.01	Trace the development of transportation in the United States from a historical perspective.
02.02	Explain the economic impact of the transportation industry at the local and national levels.
02.03	Describe the impact of transportation on a global scale.
02.04	Describe the differences and similarities between ground, air, and maritime travels.
<b>03.0</b>	Demonstrate knowledge of service publications by selecting the correct source and locating information found in each.--The student will be able to:
03.01	Identify aerospace, ground and maritime service publications such as; owner’s manuals, manufacturer’s manuals and electronic service publications and Federal Aviation Regulations.
03.02	Read service publications to retrieve desired information.
03.03	Describe the basic types of troubleshooting charts found in service publications.
<b>04.0</b>	Demonstrate an understanding of the major components of ground, air and maritime transportation vehicles.--The student will be able to:

## CTE Standards and Benchmarks

04.01	Identify and locate important parts of ground, air, and maritime transportation vehicles.
04.02	Describe the purpose of the fundamental transportation systems.
04.03	Explain how each transportation system works dependent and independently of each other.
04.04	Describe the Merchant Marine and Marine Transportation System.
05.0	Demonstrate knowledge of safety, OSHA, EPA issues and procedures.--The student will be able to:
05.01	Define OSHA and how it oversees and provides safety guidelines to the transportation industry.
05.02	Describe the typical layout and sections of a ground, air and maritime transportation lab.
05.03	List the types of accidents that can occur in a ground, air and maritime transportation lab.
05.04	Explain how to prevent ground, air and maritime transportation lab accidents.
05.05	Describe the general rules for the ground, air and maritime transportation lab.
05.06	Explain federal, state, and local rules and regulations regarding environmental issues related to the work of the ground, air and maritime transportation industry.
06.0	Identify and measure fasteners used in the aerospace, ground and maritime transportation industry.--The student will be able to:
06.01	Identify the different fasteners such as; screws, bolts, washers, nuts, rivets, etc. that are used in the aerospace, ground and maritime transportation industry.
06.02	Explain the functions and applications of various fasteners.
06.03	Demonstrate how to measure fasteners.
06.04	Identify the proper hand tools and safe uses when working with fasteners used in the aerospace, ground, and maritime transportation industry.
07.0	Identify, select and use the proper tool for a given fastener or job.--The student will be able to:
07.01	Identify common ground, air and maritime transportation hand and power tools and proper uses.
07.02	List safety rules for common ground, air and maritime transportation hand and power tools.
07.03	Explain how to maintain and store tools properly.
08.0	Identify and measure components of an engine used in the aerospace, ground and maritime transportation industry.--The student will be able to:
08.01	Introduce and explain the major components of an aerospace/transportation engine.
08.02	Demonstrate how to properly measure each component.
08.03	Explain the different instruments used for engine measurements.
08.04	Discuss various propulsion systems for maritime vessels.
09.0	Inspect an aerospace, ground and maritime transportation vehicle for maintenance needed for safe operation.--The student will be able to:

## CTE Standards and Benchmarks

09.01	Explain the importance of vehicle maintenance.
09.02	Demonstrate how to check fluid levels, belts, hoses, tires, etc.
09.03	Demonstrate safe practices while working with fluids.
10.0	Demonstrate an understanding of basic electricity and electronics.--The student will be able to:
10.01	Explain the principles of electricity.
10.02	Describe the basic electrical circuits.
10.03	Identify basic electrical and electronic terms and components.
10.04	Calculate and measure voltage, resistance and amperage.
10.05	Explain different kinds of aerospace/transportation vehicle wiring.
10.06	Repair and build electrical circuits.
10.07	Demonstrate fundamental electrical testing.
11.0	Demonstrate knowledge of current and alternative fuel sources.--The student will be able to:
11.01	Summarize how crude oil is converted to gasoline and diesel fuels.
11.02	Describe properties of gasoline and diesel fuels.
11.03	Summarize properties of alternative fuels.
11.04	Compare and contrast benefits of green fuels and energy production.
12.0	Use visual and verbal communication to present employment and career opportunities in transportation.--The student will be able to:
12.01	Present a technical report to an audience regarding a researched transportation related career using multimedia.
12.02	Prepare and produce a portfolio representing experiences throughout the course of study.
13.0	Students will develop leadership and interpersonal problem-solving skills through participation in co-curricular activities.--The student will be able to:
13.01	Demonstrate effective communication skills.
13.02	Participate in teamwork to accomplish specified organizational goals.
13.03	Demonstrate cooperation and understanding with persons who are ethnically and culturally diverse.
14.0	Identify components of network systems.--The student will be able to:
14.01	Identify structure to access internet, including hardware and software components.
14.02	Identify and configure user customization features in web browsers, including preferences, caching, and cookies.
14.03	Recognize essential database concepts.



## CTE Standards and Benchmarks

14.04 Define and use additional networking and internet services.

15.0 Describe and use communication features of information technology.--The student will be able to:

15.01 Define important internet communications protocols and their roles in delivering basic Internet services.

15.02 Identify basic principles of the Domain Name System (DNS).

15.03 Identify security issues related to Internet clients.

15.04 Identify and use principles of personal information management (PIM), including common applications.

15.05 Efficiently transmit text and binary files using popular Internet services.

15.06 Conduct a webcast and related services.

15.07 Represent technical issues to a non-technical audience.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

The Florida Technology Student Association (FL-TSA) is the intercurricular career and technical student organization for providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Postsecondary students with disabilities must self-identify, present documentation, request accommodations if needed, and develop a plan with their counselor and/or instructors. Accommodations received in postsecondary education may differ from those received in secondary education. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Course Title:** Introduction to Energy  
**Course Type:** Orientation/Exploratory  
**Career Cluster:** Energy

**Secondary – Middle School**

Course Number	9709350
CIP Number	149709350M
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b>Course Structure</b> section.
CTSO	SkillsUSA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Energy career cluster. The content includes but is not limited to planning, managing and providing support and technical services related to the generation, transmission and distribution of various types of energy along with the design engineering, construction, maintenance and repair of these systems. Reinforcement of academic skills occurs through classroom instruction and applied laboratory procedures. Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
9709350	Introduction to Energy	TEC ED 1@2 ENG&TEC ED1@2 ELECTRICAL @7 7G IND ENGR 7G	Semester

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

### **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Explore the generation pathway of the energy industry and the applicable career options
- 02.0 Explore the transmission/ distribution pathway of the energy industry and the applicable career option
- 03.0 Apply leadership and communication skills.
- 04.0 Describe how information technology is used in the Energy career cluster.
- 05.0 Use information technology tools.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Introduction to Energy  
**Course Number:** 9709350  
**Course Length:** Semester

Beginning with a broad overview of the Energy career cluster, students are introduced to the terminology, careers, history, required skills and technologies associated with each pathway in the Energy career cluster. Additionally, they will be provided with opportunities to acquire and demonstrate beginning leadership skills.

<b>CTE Standards and Benchmarks</b>	
01.0	Explore the generation pathway of the energy industry and the applicable career options--The student will be able to:
01.01	Explore various sources of renewable and nonrenewable energy generation and the careers associated with them.
01.02	Explain ways of generating electric power.
01.03	Define and use proper terminology associated with energy generation.
01.04	Describe some of the careers available in energy generation.
01.05	Identify common characteristics of the careers in energy generation.
01.06	Identify possibilities for future careers in energy that support emerging technologies.
01.07	Describe how society has impacted the energy industry.
01.08	Identify education required to successfully enter any career in the energy generation field.
01.09	Demonstrate employability skills and hands-on skills required to successfully enter any career in the energy generation field.
01.10	Describe career ladder options and the skills or education required to progress in the energy industry.
01.11	Describe technologies associated with careers in energy generation.
02.0	Explore the transmission/ distribution pathway of the energy industry and the applicable career option--The student will be able to:
02.01	Define and use proper terminology associated with energy transmission/distribution.
02.02	Describe some of the careers available in energy transmission/distribution.

## CTE Standards and Benchmarks

02.03	Identify common characteristics of the careers in energy transmission/distribution.
02.04	Identify skills required to successfully enter any career in energy transmission/distribution.
02.05	Demonstrate employability skills and hands-on skills required to successfully enter any career in the energy transmission/distribution field.
02.06	Describe technologies associated with careers in energy transmission/distribution.
03.0	Apply leadership and communication skills--The student will be able to:
03.01	Discuss the establishment and history of the SkillsUSA organization.
03.02	Identify the characteristics and responsibilities of organizational leaders.
03.03	Demonstrate parliamentary procedure skills during a meeting.
03.04	Participate on a committee/ collaborative group which has an assigned task and report to the class.
03.05	Demonstrate effective communication skills through verbal conversation, written communication, delivery of a speech, a slide presentation or conducting a demonstration through participation in a Career and Technical Student Organization (CTSO).
03.06	Use a computer to assist in the completion of a project related to the Energy career cluster.
04.0	Describe how information technology is used in the Energy career cluster--The student will be able to:
04.01	Identify information technology (IT) careers in the Energy career cluster, including the responsibilities, tasks and skills they require.
04.02	Identify security-related ethical and legal IT issues faced by professionals in the Energy career cluster.
05.0	Use information technology tools--The student will be able to:
05.01	Identify the functions of web browsers and use them to access the World Wide Web and other computer resources typically used in the Energy career cluster.
05.02	Use e-mail clients to send simple messages and files to other Internet users.
05.03	Demonstrate ways to communicate effectively using Internet technology.
05.04	Use different types of web search engines effectively to locate information relevant to the Energy career cluster.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

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### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career Planning**

**Effective July 1, 2019, per Section 1003.4156, Florida Statutes (F.S.), for students to meet middle grades promotion requirements, a Career and Education Planning course must be completed in either sixth, seventh, or eighth grade.** These courses should be taught integrating the eight career and education planning course standards. The MyCareerShines powered by Kuder® career planning system is available free of charge to all Florida middle and high schools to assist students in completing research-based career assessments, exploring career options and developing an online academic and career plan.

### **Career and Technical Student Organization (CTSO)**

SkillsUSA is the intercurricular career and technical student organization for providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.



## **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

Course Title: Introduction to Energy and Career Planning  
Course Type: Orientation/Exploratory  
Career Cluster: Energy

Secondary – Middle School	
Course Number	9709360
CIP Number	149709360M
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to the <b>Course Structure</b> section.
CTSO	SkillsUSA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Energy career cluster. The content includes but is not limited to planning, managing and providing support and technical services related to the generation, transmission and distribution of various types of energy along with the design engineering, construction, maintenance, and repair of these systems. Reinforcement of academic skills occurs through classroom instruction and applied laboratory procedures.

Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
9709360	Introduction to Energy and Career Planning	TEC ED 1@2 ENG&TEC ED1@2 ELECTRICAL @7 7G IND ENGR 7G	Semester

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Explore the generation pathway of the energy industry and the applicable career options
- 02.0 Explore the transmission/distribution pathway of the energy industry and the applicable career option
- 03.0 Apply leadership and communication skills.
- 04.0 Describe how information technology is used in the Energy career cluster.
- 05.0 Use information technology tools.

**Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes:**

- 06.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.
- 07.0 Develop skills to locate, evaluate, and interpret career information.
- 08.0 Identify and demonstrate processes for making short and long term goals.
- 09.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.
- 10.0 Understand the relationship between educational achievement and career choices/postsecondary options.
- 11.0 Identify a career cluster and related pathways that match career and education goals.
- 12.0 Develop a career and education plan that includes short and long-term goals, high school program of study & postsecondary/career goals.
- 13.0 Demonstrate knowledge of technology and its application in career fields/clusters.

Florida Department of Education  
Student Performance Standards

Course Title: Introduction to Energy and Career Planning  
Course Number: 9709360  
Course Length: Semester

Course Description:

Beginning with a broad overview of the Energy career cluster, students are introduced to the terminology, careers, history, required skills and technologies associated with each pathway in the Energy career cluster. Additionally, they will be provided with opportunities to acquire and demonstrate beginning leadership skills.

<b>CTE Standards and Benchmarks</b>	
01.0	Explore the generation pathway of the energy industry and the applicable career options--The student will be able to:
01.01	Explore various sources of renewable and nonrenewable energy generation and the careers associated with them.
01.02	Explain ways of generating electric power.
01.03	Define and use proper terminology associated with energy generation.
01.04	Describe some of the careers available in energy generation.
01.05	Identify common characteristics of the careers in energy generation.
01.06	Identify possibilities for future careers in energy that support emerging technologies.
01.07	Describe how society has impacted the energy industry.
01.08	Identify skills required to successfully enter any career in the energy generation field.
01.09	Demonstrate employability skills and hands-on skills required to successfully enter any career in the energy generation field.
01.10	Describe career ladder options and the skills or education required to progress in the energy industry.
01.11	Describe technologies associated with careers in energy generation.
02.0	Explore the transmission/ distribution pathway of the energy industry and the applicable career option--The student will be able to:
02.01	Define and use proper terminology associated with energy transmission/distribution.

## CTE Standards and Benchmarks

02.02 Describe some of the careers available in energy transmission/distribution.

02.03 Identify common characteristics of the careers in energy transmission/distribution.

02.04 Identify skills required to successfully enter any career in energy transmission/distribution.

02.05 Demonstrate employability skills and hands-on skills required to successfully enter any career in the energy transmission/distribution field.

02.06 Describe technologies associated with careers in energy transmission/distribution.

03.0 Apply leadership and communication skills--The student will be able to:

03.01 Discuss the establishment and history of the SkillsUSA organization.

03.02 Identify the characteristics and responsibilities of organizational leaders.

03.03 Demonstrate parliamentary procedure skills during a meeting.

03.04 Participate on a committee/ collaborative group which has an assigned task and report to the class.

03.05 Demonstrate effective communication skills through verbal conversation, written communication, delivery of a speech, a slide presentation or conducting a demonstration through participation in a Career and Technical Student Organization (CTSO).

03.06 Use a computer to assist in the completion of a project related to the Energy career cluster.

04.0 Describe how information technology is used in the Energy career cluster--The student will be able to:

04.01 Identify information technology (IT) careers in the Energy career cluster, including the responsibilities, tasks and skills they require.

04.02 Identify security-related ethical and legal IT issues faced by professionals in the Energy career cluster.

05.0 Use information technology tools--The student will be able to:

05.01 Identify the functions of web browsers and use them to access the World Wide Web and other computer resources typically used in the Energy career cluster.

05.02 Use e-mail clients to send simple messages and files to other Internet users.

05.03 Demonstrate ways to communicate effectively using Internet technology.

05.04 Use different types of web search engines effectively to locate information relevant to the Energy career cluster.

**Listed below are the standards that must be met to satisfy the requirements of Section 1003.4156, Florida Statutes:**

The student will be able to:

06.0 Describe the influences that societal, economic, and technological changes have on employment trends and future training.

07.0 Develop skills to locate, evaluate, and interpret career information.

08.0 Identify and demonstrate processes for making short and long term goals.

09.0 Demonstrate employability skills such as working in a group, problem-solving and organizational skills, and the importance of entrepreneurship.

10.0 Understand the relationship between educational achievement and career choices/postsecondary options.

11.0 Identify a career cluster and related pathways that match career and education goals.

12.0 Develop a career and education plan that includes short and long-term goals, high school program of study, and postsecondary/career goals.

13.0 Demonstrate knowledge of technology and its application in career fields/clusters.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career Planning**

**Effective July 1, 2019, per Section 1003.4156, Florida Statutes (F.S.), for students to meet middle grades promotion requirements, a Career and Education Planning course must be completed in either sixth, seventh, or eighth grade.** These courses should be taught integrating the eight career and education planning course standards. The MyCareerShines powered by Kuder® career planning system is available free of charge to all Florida middle and high schools to assist students in completing research-based career assessments, exploring career options and developing an online academic and career plan.

### **Career and Technical Student Organization (CTSO)**

SkillsUSA is the intercurricular career and technical student organization for providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

## **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.



Florida Department of Education  
Curriculum Framework

**Program Title:** Fundamentals of Energy  
**Program Type:** Orientation/Exploratory  
**Career Cluster:** Energy

**Secondary – Middle School**

Course Number	9790300
CIP Number	149790300M
Grade Level	6-8
Standard Length	Semester
Teacher Certification	Refer to <b>Course Structure</b> section.
CTSO	SkillsUSA

**Purpose**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Energy career cluster. The content includes but is not limited to careers in the energy industry, various energy sources, and electrical power generation, transmission and distribution. Instruction and learning activities are provided in a laboratory setting using hands-on experiences with the equipment, materials and technology appropriate to the course content and in accordance with current practices.

**Course Structure**

The length of this course is one semester. It may be offered for two semesters when appropriate. When offered for one semester, it is recommended that it be at the exploratory level and more in-depth when offered for two semesters.

To teach the course listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the course structure:

Course Number	Course Title	Teacher Certification	Length
9790300	Fundamentals of Energy	TEC ED 1@2 ENG&TEC ED1@2 ELECTRICAL @7 7G IND ENGR 7G	Semester

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

### **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Explore careers and entry requirements in the energy industry.
- 02.0 Locate power plants in Florida.
- 03.0 Understand conventional electric power generation.
- 04.0 Discuss the value of alternative and renewable energy sources.
- 05.0 Understand electric power transmission and distribution.
- 06.0 Investigate the viability of wind energy.
- 07.0 Investigate the viability of solar energy.
- 08.0 Investigate the use of hydroelectricity.
- 09.0 Investigate the use of nuclear power.
- 10.0 Investigate the viability of bioenergy (biomass and biofuel).
- 11.0 Investigate the viability of geothermal energy.
- 12.0 Investigate energy consumption and identify ways to use energy wisely.
- 13.0 Discuss greenhouse gas emissions based on local fuel mixture and energy consumption.

**Florida Department of Education  
Student Performance Standards**

**Course Title:** Fundamentals of Energy  
**Course Number:** 9790300  
**Course Length:** Semester

**Course Description:**

The purpose of this course is to assist students in making informed decisions regarding their future academic and occupational goals and to provide information regarding careers in the Energy career cluster. The content includes but is not limited to careers in the energy industry, various energy sources and electrical power generation, transmission and distribution.

<b>CTE Standards and Benchmarks</b>	
01.0	Explore careers and entry requirements in the energy industry--The student will be able to:
01.01	Describe careers in the energy industry.
01.02	Explain educational pathways available to gain training to begin a career in the energy industry.
01.03	Classify careers from entry-level to professional level.
01.04	Explain the importance of employability skills related to the energy industry.
01.05	Explain how destructive decisions can affect future employment.
01.06	Research and present information on an energy career including roles and responsibilities, opportunities for employment and the requirements for education and training.
02.0	Locate power plants in Florida--The student will be able to:
02.01	Describe the energy source(s) the power plants use.
02.02	Map the areas that are served by particular utility companies.
02.03	Describe different types of utility businesses (electric cooperatives, municipal, investor owned).
03.0	Understand conventional electric power generation--The student will be able to:
03.01	Explain the conventional electric power generation systems and process (coal, petroleum, hydroelectric and nuclear).
03.02	Identify various conventional electric power generation fuel sources and the cost/ efficiency/ environmental advantages and disadvantages of each.

## CTE Standards and Benchmarks

03.03 Diagram conventional electrical power generation systems.

04.0 Discuss the value of alternative and renewable energy sources--The student will be able to:

04.01 Identify reasons for seeking alternatives to fossil fuels to include economic, environmental and social impacts.

04.02 Understand the difference between alternative energy and renewable energy.

04.03 Understand the economic, environmental and social impact of alternative / renewable energy.

04.04 Compare and contrast alternative / renewable sources of energy with conventional sources of energy.

05.0 Understand electric power transmission and distribution--The student will be able to:

05.01 Understand the differences between AC and DC power.

05.02 Explain the electric power transmission process.

05.03 Explain the electric power distribution process.

05.04 Discuss the need for electric distribution systems and how they are designed to operate.

05.05 Discuss the emerging technologies in electric power transmission and distribution.

06.0 Investigate the viability of wind energy--The student will be able to:

06.01 Describe the process to harness wind energy.

06.02 Evaluate the advantages and disadvantages to wind technology.

06.03 Diagram a wind turbine.

06.04 Explain what makes a location appropriate for wind energy and identify on a map.

07.0 Investigate the viability of solar energy--The student will be able to:

07.01 Describe solar energy and how it is harnessed.

07.02 Explain the difference between passive solar and active solar.

07.03 Diagram a solar cell.

07.04 Describe a central receiver system.

## CTE Standards and Benchmarks

07.05 Diagram a solar thermal plant.

07.06 Explain what makes a location appropriate for solar energy and identify on a map.

08.0 Investigate the use of hydroelectricity--The student will be able to:

08.01 Describe hydroelectric energy production.

08.02 Diagram a hydroelectric plant.

08.03 Explain what makes a location appropriate for hydroelectricity and identify on a map.

09.0 Investigate the use of nuclear power--The student will be able to:

09.01 Evaluate the advantages and disadvantages of nuclear power.

09.02 Diagram a Light-Water Reactor (LWR) (e.g. control rods, coolant, containment vessel, dry casks, turbine, etc.).

09.03 Describe nuclear energy and how it is harnessed.

09.04 Discuss types of locations where building nuclear power plants would not be feasible.

10.0 Investigate the viability of bioenergy (biomass and biofuel)--The student will be able to:

10.01 Discuss the major sources of biomass.

10.02 Define biofuels (e.g. ethanol, biodiesel and methanol).

10.03 Describe the major sources, scale and impacts of biomass energy.

10.04 Diagram an electric energy producing biomass plant.

10.05 List the advantages and disadvantages of using biomass for energy (e.g. CO<sub>2</sub> emissions, photosynthetic efficiency, cost, etc.).

11.0 Investigate the viability of geothermal energy--The student will be able to:

11.01 Describe geothermal energy and the way it is harnessed.

11.02 Evaluate the advantages and disadvantages of using geothermal energy.

11.03 Diagram a geothermal power plant.

11.04 Explain what makes a location appropriate for geothermal energy power plant and identify on a map.

## CTE Standards and Benchmarks

12.0 Investigate energy consumption and identify ways to use energy wisely--The student will be able to:

12.01 Describe energy efficiency and conservation.

12.02 Read and interpret a residential utility bill.

12.03 Learn how to measure energy use of various equipment.

12.04 Identify ways to conserve energy at home and at school.

13.0 Discuss greenhouse gas emissions based on local fuel mixture and energy consumption—The student will be able to:

13.01 Discuss sources of energy used by local utility.

13.02 Discuss local fuel mixture.

13.03 Compare greenhouse gas emissions (carbon dioxide, methane, nitrous oxide, etc.) for various types of fuel (e.g. coal, petroleum, natural gas).

13.04 Explain the importance of fuel mix diversity.

## **Additional Information**

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Florida Department of Education  
Curriculum Framework

**Program Title:** High School Pre-Apprenticeship  
**Program Type:** Career Preparatory  
**Career Cluster:** Any Cluster within an Apprenticeable Occupation

**Secondary – Career Preparatory**

Program Number	8000200
CIP Number	0891010002
Grade Level	9 – 12
Standard Length	4 credits
Teacher Certification	Refer to the <b><u>Program Structure</u></b> section.
CTSO	Program Specific
SOC Codes (all applicable)	Discipline Specific
CTE Program Resources	
Eligibility	Minimum 16 Years of Age, Registered in a Registered Pre-Apprenticeship Program (section 446.021 F.S.)

**Purpose**

This program offers courses that provide content aligned with challenging academic standards and the relevant technical knowledge and skills needed to prepare students for further education and careers in various apprenticeable occupations that are part of a Registered Preapprenticeship program registered with the Florida Department of Education, Division of Career and Adult Education, Apprenticeship Section. The program may include time-based and competency-based applied learning that contributes to problem-solving skills, work attitudes, general employability skills, technical skills, and occupation-specific skills, and knowledge of all aspects of registered apprenticeship.

The content includes, but is not limited to, communication skills, leadership skills, human relations and employability skills, safe and efficient work practices, and the skills needed to operate and maintain a variety of related equipment and tools.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Program Structure**

Students enrolled in this program number must be registered in a Registered Preapprenticeship program in accordance with section 446.011-092, F.S. and 6A-23.010 F.A.C. This program of study is designed to prepare students for initial employment in an apprenticeable occupation within a Registered Apprenticeship program. The program includes related technical instruction and may include paid on-the-job training/learning, if

identified in the Registered Preapprenticeship Program Standards, which must be supervised by the Registered Preapprenticeship committee, sponsor, or participating employer; and teacher/coordinator.

This program focuses on broad, transferable skills and stresses understanding and demonstration of the following elements: planning, management, finance, technical and product skills, underlying principles of technology, labor issues, community issues; and health, safety, and environmental issues.

Courses 8000110, 8000120, 8000130, and 8000140 correlate to the Related Technical Instruction component of a Registered Preapprenticeship program. If the Registered Preapprenticeship Standards contain a provision for on-the-job training/learning, the applicable OJT Career Cluster course is appropriate for registered preapprentices to be enrolled in.

To teach the courses listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the secondary program structure:

Course Number	Course Title	Teacher Certification	Length	SOC Code	Level	Graduation Requirement
8000110	Pre-Apprenticeship 1	ANY CAREER AND TECHNICAL EDUCATION FIELD OR COVERAGE	1 credit	Occupation Specific	2	PA
8000120	Pre-Apprenticeship 2		1 credit	Occupation Specific	2	PA
8000130	Pre-Apprenticeship 3		1 credit	Occupation Specific	2	PA
8000140	Pre-Apprenticeship 4		1 credit	Occupation Specific	2	PA

*(Graduation Requirement Abbreviations- EQ= Equally Rigorous Science, PA= Practical Arts, EC= Economics)*

## **Common Career Technical Core – Career Ready Practices**

Career Ready Practices describe the career-ready skills that educators should seek to develop in their students. These practices are not exclusive to a Career Pathway, program of study, discipline or level of education. Career Ready Practices should be taught and reinforced in all career exploration and preparation programs with increasingly higher levels of complexity and expectation as a student advances through a program of study.

1. Act as a responsible and contributing citizen and employee.
2. Apply appropriate academic and technical skills.
3. Attend to personal health and financial well-being.
4. Communicate clearly, effectively and with reason.
5. Consider the environmental, social and economic impacts of decisions.
6. Demonstrate creativity and innovation.
7. Employ valid and reliable research strategies.
8. Utilize critical thinking to make sense of problems and persevere in solving them.
9. Model integrity, ethical leadership and effective management.
10. Plan education and career path aligned to personal goals.
11. Use technology to enhance productivity.
12. Work productively in teams while using cultural/global competence.

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Identify apprenticeable occupations.
- 02.0 Identify subparts in the Occupational Safety and Health Administration's regulations.
- 03.0 Demonstrate an understanding of Registered Apprenticeship.
- 04.0 Demonstrate and apply appropriate communication skills.
- 05.0 Demonstrate and apply appropriate math skills.
- 06.0 Demonstrate awareness of drug-free workplace initiatives.
- 07.0 Use technology, tools, equipment and supplies safely and correctly.
- 08.0 Read and interpret appropriate technical references and manuals.
- 09.0 Demonstrate understanding of employability skills.
- 10.0 Demonstrate understanding of entrepreneurship.
- 11.0 Demonstrate leadership and organizational skills.
- 12.0 Demonstrate the skills required for on-the-job training/learning in a registered apprenticeship program.
- 13.0 Develop a professional portfolio.
- 14.0 Gain practical exposure to various apprenticeable occupations.

Florida Department of Education  
Student Performance Standards

Course Title: Pre-Apprenticeship 1  
Course Number: 8000110  
Course Credit: 1

<b>CTE Standards and Benchmarks</b>	
01.0	Identify apprenticeable occupations. The student will be able to:
01.01	Prepare a list of apprenticeable occupations in the area of interest.
01.02	Collect and maintain information on the apprenticeable occupation in which student has indicated an interest.
01.03	Contact a representative of the chosen apprenticeable occupation and ask a minimum of ten (10) prepared questions.
02.0	Identify subparts in the Occupational Safety and Health Administration's regulations. The student will be able to:
02.01	Describe how specific OSHA regulations relate to the apprenticeable occupation.
02.02	Apply OSHA regulations to work related activities in the classroom/lab.
02.03	Access and discover information on the OSHA website.
02.04	Describe the role of the National Institute of Occupational Safety and Health. (NIOSH)
03.0	Demonstrate an understanding of Registered Apprenticeship. The student will be able to:
03.01	Research and explain the Fitzgerald Act.
03.02	Create an organizational chart of Registered Apprenticeship in the State of Florida.
03.03	Research the Florida Apprenticeship website.
03.04	Explain the role of the U.S. Department of Labor, Office of Apprenticeship.
03.05	Compare and contrast the difference between Office of Apprenticeship (OA) states and State Apprenticeship Agencies (SAA).
03.06	Understand the role of the State Apprenticeship Advisory Council in Florida.
03.07	Identify and explain Federal statutes related to registered apprenticeship. (29-CFR-29, 29-CFR-30, and 29-CFR-5)
03.08	Compare and contrast Joint and Non-Joint registered apprenticeship programs.
03.09	Identify and explain Florida statutes and rules related to registered apprenticeship. (446 F.S. and 6A-23 F.A.C.)
03.10	Explain what a collective bargaining agreement is and how it applies to Registered Apprenticeship.
04.0	Demonstrate and apply appropriate communication skills. The student will be able to:

**CTE Standards and Benchmarks**

04.01 Write logical and understandable statements, or phrases, to accurately fill out forms commonly used in business and industry.

04.02 Read and understand graphs, charts, diagrams, tables, blueprints, and schematics where appropriate and commonly used.

04.03 Read and interpret reading materials related to the apprenticeable occupation.

04.04 Demonstrate appropriate and relevant occupation-related computer skills.

04.05 Demonstrate appropriate telephone and smart phone communication skills.

04.06 Read and follow written instructions; listen to and follow verbal instructions.

04.07 Give reports orally and in writing.

Florida Department of Education  
Student Performance Standards

Course Title: Pre-Apprenticeship 2  
Course Number: 8000120  
Course Credit: 1

<b>CTE Standards and Benchmarks</b>	
05.0	Demonstrate and apply appropriate math skills. The student will be able to:
05.01	Prepare a workbook that includes the formulas, practical guidelines, general knowledge, and mathematical principles related to the student's selected apprenticeship area.
05.02	Solve job-related problems by adding, subtracting, multiplying, and dividing whole numbers, decimals, and common fractions.
06.0	Demonstrate awareness of drug-free workplace initiatives. The student will be able to:
06.01	Research and describe the effects of drugs and alcohol on job performance and safety.
06.02	Explain how an alcohol or drug conviction affects a person's ability to acquire employment.
06.03	Research and describe the health-related effects of alcohol and drugs.
07.0	Use technology, tools, equipment and supplies safely and correctly. The student will be able to:
07.01	Correctly use tools and equipment appropriate to the selected apprenticeable occupation.
07.02	Demonstrate the ability to wear, select, adjust, and maintain safety equipment.
07.03	Determine whether safety equipment is serviceable.
07.04	Read safety warnings on equipment, chemicals, tools and work sites; correctly interpret and apply the necessary precautions.
07.05	Demonstrate an understanding of Safety Data Sheet(s) (SDS) related to the apprenticeable occupation.
07.06	Read the procedures for servicing equipment and accurately complete the required actions.
07.07	Determine the safety of the equipment used in the apprenticeable occupation.
08.0	Read and interpret appropriate technical references and manuals. The student will be able to:
08.01	Design solutions for work problems using data from appropriate manuals.
08.02	Use Internet resources to acquire technical information for job-related problems.
08.03	Read and use the appropriate manuals to complete work assignments
08.04	Demonstrate understanding of the material through correct procedures and application.

Florida Department of Education  
Student Performance Standards

Course Title: Pre-Apprenticeship 3  
 Course Number: 8000130  
 Course Credit: 1

**CTE Standards and Benchmarks**

09.0	Demonstrate understanding of employability skills. The student will be able to:
09.01	Demonstrate productive work habits and positive attitudes.
09.02	Identify the ethical and responsible practices expected of apprenticeship trainees.
09.03	Demonstrate acceptable personal hygiene habits and a professional appearance.
09.04	Apply the principles of time management, work simplification, and teamwork to perform and complete assigned tasks.
09.05	Explain the importance of taking pride in the quality of work performed.
09.06	Explain the importance of maintaining a good driving record and explain the ramifications of a poor driving record on employment.
09.07	Demonstrate knowledge of the Federal Hazard Communication Regulation (29 CFR 1910.1200).
09.08	Secure information about a job.
09.09	Identify the documents that may be required to apply for an apprenticeship program.
09.10	Complete a job application form.
09.11	Demonstrate competence in job interview techniques.
09.12	Demonstrate appropriate knowledge of how to make job changes.
09.13	Discuss the need to balance work and family.
09.14	Identify the appropriate certifications related to the apprenticeable occupation.
10.0	Demonstrate an understanding of entrepreneurship. The student will be able to:
10.01	Define entrepreneurship.
10.02	Describe the importance of entrepreneurship to the economy; identify the role of small business in a free enterprise system.
10.03	Discuss the advantages and disadvantages of business ownership.
10.04	Discuss the risks involved in business ownership.
10.05	Identify the personal characteristics of a successful entrepreneur.
10.06	Demonstrate an understanding of various business formats. (sole proprietor, s-corporation, limited liability, etc.)



## CTE Standards and Benchmarks

11.0	Demonstrate leadership and organizational skills. The student will be able to:
11.01	Define and practice brainstorming.
11.02	Identify and use resource and time management skills.
11.03	Identify the characteristics of a leader and team members.
11.04	Identify the purposes and functions of career technical student organizations (CTSO) related to the selected apprenticeable occupation.

Florida Department of Education  
Student Performance Standards

Course Title: Pre-Apprenticeship 4  
 Course Number: 8000140  
 Course Credit: 1

<b>CTE Standards and Benchmarks</b>	
12.0	Demonstrate the skills required for on-the job training/learning in a registered apprenticeship program. The student will be able to:
12.01	Practice maintaining a daily log of activities; include the number of hours, skills learned, and competencies attained.
13.0	Develop a professional portfolio . The student will be able to:
13.01	Include career and educational goals.
13.02	Provide an autobiography, picture, references and a résumé (traditional and digital).
13.03	Accumulate letters of recommendation.
13.04	Satisfactorily complete job applications related to the apprenticeable occupation of interest.
13.05	Document history of work and volunteer activities.
14.0	Gain practical exposure to various apprenticeable occupations. The student will be able to:
14.01	Rotate through a variety of increasingly responsible experiences.
14.02	Participate as a team member with a skilled mentor.
14.03	Demonstrate an understanding and appreciation of related occupational groups.
14.04	Apply basic skills in communications, mathematics, and science appropriate to technological content and learning activities.

## Additional Information

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Academic Alignment**

Secondary Career and Technical Education courses are pending alignment to the B.E.S.T. (Benchmarks for Excellent Student Thinking) Standards for English Language Arts (ELA) and Mathematics that were adopted by the State Board of Education in February 2020. Academic alignment is an ongoing, collaborative effort of professional educators that provide clear expectations for progression year-to-year through course alignment. This initiative supports CTE programs by improving student performance through the integration of academic content within CTE courses.

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English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. To access an ELL supporting document which delineates performance definitions and descriptors, please click on the following link:

For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition at [sala@fldoe.org](mailto:sala@fldoe.org).

### **Special Notes**

In order for secondary students to be enrolled in this program, students **must** be registered and have entered into a Pre-Apprenticeship Agreement in a Pre-Apprenticeship program that is sponsored by a Registered Apprenticeship program, as identified in F.S. 446 registered with the Florida Department of Education, Apprenticeship Section.

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student. Access MyCareerShines by visiting:

## **Career and Technical Student Organization (CTSO)**

The intercurricular career and technical student organization(s) providing leadership training and reinforcing specific career and technical skills is discipline specific. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

## **Cooperative Training – OJT**

On-the-job training is appropriate but not required for this program. Whenever offered, the rules, guidelines, and requirements found and specified in the appropriate Career Cluster OJT framework apply.

## **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Some secondary students with disabilities (ESE) may need additional time (i.e., longer than the regular school year), to master the student performance standards associated with a regular course or a modified course. If needed, a student may enroll in the same career and technical course more than once. Documentation should be included in the IEP that clearly indicates that it is anticipated that the student may need an additional year to complete a Career and Technical Education (CTE) course. The student should work on different competencies and new applications of competencies each year toward completion of the CTE course. After achieving the competencies identified for the year, the student earns credit for the course. It is important to ensure that credits earned by students are reported accurately. The district's information system must be designed to accept multiple credits for the same course number for eligible students with disabilities.

## **Additional Resources**

For additional information regarding articulation agreements, Bright Futures Scholarships, Fine Arts/Practical Arts Credit and Equivalent Mathematics and Equally Rigorous Science Courses please refer to:

Florida Department of Education  
Curriculum Framework

**Program Title:** High School Apprenticeship  
**Program Type:** Career Preparatory  
**Career Cluster:** Any Cluster within an Apprenticeable Occupation

**Secondary – Career Preparatory**

Program Number	8000300
CIP Number	0891010003
Grade Level	10 – 12
Standard Length	3 credits
Teacher Certification	Refer to the <b><u>Program Structure</u></b> section.
CTSO	Program Specific
SOC Codes (all applicable)	Discipline Specific
CTE Program Resources	
Eligibility	Minimum 16 Years of Age, Registered in a Registered Apprenticeship Program (section 446.011-092 F.S.)

**Purpose**

This program offers courses that provide content aligned with challenging academic standards and the relevant technical knowledge and skills needed to prepare students for further education and careers in various apprenticeable occupations that are part of a Registered Apprenticeship program registered with the Florida Department of Education, Division of Career and Adult Education, Apprenticeship Section. The program may include time-based, competency-based, or hybrid-based applied learning that contributes to problem-solving skills, work attitudes, general employability skills, technical skills, and occupation-specific skills, and knowledge of all aspects of registered apprenticeship.

The content includes, but is not limited to, communication skills, leadership skills, human relations and employability skills, safe and efficient work practices, and the skills needed to operate and maintain a variety of related equipment and tools.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Program Structure**

Students enrolled in this program must be registered in a Registered Apprenticeship program in accordance with section 446.011-092, F.S. and rule 6A-23.001-011 F.A.C. This program is designed for students employed full-time in an apprenticeable occupation within a Registered Apprenticeship program. The program will include related technical instruction and paid on-the-job training/learning which must be supervised by the Registered Apprenticeship committee, sponsor, or participating employer; and teacher/coordinator.

This program of study focuses on broad, transferable skills and stresses understanding and demonstration of the following elements: planning, management, finance, technical and product skills, underlying principles of technology, labor issues, community issues; and health, safety, and environmental issues.

Courses 8000310, 8000320, and 8000330 correlate to the Related Technical Instruction component of a Registered Apprenticeship program. For on-the-job training/learning, students should be enrolled in the applicable OJT Career Cluster course.

To teach the courses listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the secondary program structure:

OCP	Course Number	Course Title	Teacher Certification	Length	SOC Code	Level	Graduation Requirement
A	8000310	Apprenticeship 1	ANY CAREER AND TECHNICAL EDUCATION FIELD OR COVERAGE	1 credit	Occupation Specific	2	PA
B	8000320	Apprenticeship 2		1 credit	Occupation Specific	2	PA
C	8000330	Apprenticeship 3		1 credit	Occupation Specific	2	PA

*(Graduation Requirement Abbreviations- EQ= Equally Rigorous Science, PA= Practical Arts, EC= Economics)*

## **Common Career Technical Core – Career Ready Practices**

Career Ready Practices describe the career-ready skills that educators should seek to develop in their students. These practices are not exclusive to a Career Pathway, program of study, discipline or level of education. Career Ready Practices should be taught and reinforced in all career exploration and preparation programs with increasingly higher levels of complexity and expectation as a student advances through a program of study.

1. Act as a responsible and contributing citizen and employee.
2. Apply appropriate academic and technical skills.
3. Attend to personal health and financial well-being.
4. Communicate clearly, effectively and with reason.
5. Consider the environmental, social and economic impacts of decisions.
6. Demonstrate creativity and innovation.
7. Employ valid and reliable research strategies.
8. Utilize critical thinking to make sense of problems and persevere in solving them.
9. Model integrity, ethical leadership and effective management.
10. Plan education and career path aligned to personal goals.
11. Use technology to enhance productivity.
12. Work productively in teams while using cultural/global competence.

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Associated Year 1 standards of the Related Instruction Outline as documented in the Registered Apprenticeship's standards and agreement.
- 02.0 Associated Year 2 standards of the Related Instruction Outline as documented in the Registered Apprenticeship's standards and agreement.
- 03.0 Associated Year 3 standards of the Related Instruction Outline as documented in the Registered Apprenticeship's standards and agreement.



Florida Department of Education  
Student Performance Standards

**Course Title:** Apprenticeship 1  
**Course Number:** 8000310  
**Course Credit:** 1

**Course Description:** Apprenticeship 1 is designed to align with the Related Instruction Outline for year 1 within the Standards of Apprenticeship for which the Apprentice is registered in. A copy of the Related Instruction Outline can be obtained from the Florida Department of Education, Division of Career and Adult Education, Bureau of Standards, Benchmarks and Frameworks, Apprenticeship Section.

<b>CTE Standards and Benchmarks</b>	
01.0	Year 1 of the Related Instruction Outline. The student will be able to:
01.01	Successfully complete Year 1 of the Related Technical Instruction requirements of the Registered Apprenticeship program as identified in the Standards of Apprenticeship registered with the Florida Department of Education.

Florida Department of Education  
Student Performance Standards

**Course Title:**        **Apprenticeship 2**  
**Course Number:**   **8000320**  
**Course Credit:**     **1**

**Course Description:** Apprenticeship 2 is designed to align with the Related Instruction Outline for year 2 within the Standards of Apprenticeship for which the Apprentice is registered in. A copy of the Related Instruction Outline can be obtained from the Florida Department of Education, Division of Career and Adult Education, Bureau of Standards, Benchmarks and Frameworks, Apprenticeship Section.

<b>CTE Standards and Benchmarks</b>	
02.0	Year 2 of the Related Instruction Outline. The student will be able to:
02.01	Successfully complete Year 2 of the Related Technical Instruction requirements of the Registered Apprenticeship program as identified in the Standards of Apprenticeship registered with the Florida Department of Education.

Florida Department of Education  
Student Performance Standards

**Course Title:** Apprenticeship 3  
**Course Number:** 8000330  
**Course Credit:** 1

**Course Description:** Apprenticeship 3 is designed to align with the Related Instruction Outline for year 3 within the Standards of Apprenticeship for which the Apprentice is registered in. A copy of the Related Instruction Outline can be obtained from the Florida Department of Education, Division of Career and Adult Education, Bureau of Standards, Benchmarks and Frameworks, Apprenticeship Section.

**CTE Standards and Benchmarks**

03.0	Year 3 of the Related Instruction Outline. The student will be able to:
03.01	Successfully complete Year 3 of the Related Technical Instruction requirements of the Registered Apprenticeship program as identified in the Standards of Apprenticeship registered with the Florida Department of Education.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Academic Alignment**

Secondary Career and Technical Education courses are pending alignment to the B.E.S.T. (Benchmarks for Excellent Student Thinking) Standards for English Language Arts (ELA) and Mathematics that were adopted by the State Board of Education in February 2020. Academic alignment is an ongoing, collaborative effort of professional educators that provide clear expectations for progression year-to-year through course alignment. This initiative supports CTE programs by improving student performance through the integration of academic content within CTE courses.

### **Florida Standards for English Language Development (ELD)**

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. To access an ELL supporting document which delineates performance definitions and descriptors, please click on the following link: For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition at [sala@fldoe.org](mailto:sala@fldoe.org).

### **Special Notes**

In order for secondary students to be enrolled in this program, students **must** be registered and have entered into an Apprenticeship Agreement with an Apprenticeship program registered with the Florida Department of Education, Apprenticeship Section as required by F.S. 446.001-092 and F.A.C 6A-23.001-011.

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student. Access MyCareerShines by visiting:

### **Career and Technical Student Organization (CTSO)**

The intercurricular career and technical student organization(s) providing leadership training and reinforcing specific career and technical skills is discipline specific. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Cooperative Training – OJT**

On-the-job training thru full-time employment is required for this program as specified in the Registered Apprenticeship program for which the student is registered in. The rules, guidelines, and requirements found and specified in the appropriate Career Cluster OJT framework apply.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Some secondary students with disabilities (ESE) may need additional time (i.e., longer than the regular school year), to master the student performance standards associated with a regular Occupational Completion Point (OCP) or a Modified Occupational Completion Point (MOCP). If needed, a student may enroll in the same career and technical course more than once. Documentation should be included in the IEP that clearly indicates that it is anticipated that the student may need an additional year to complete an OCP/MOCP. The student should work on different competencies and new applications of competencies each year toward completion of the OCP/MOCP. After achieving the competencies identified for the year, the student earns credit for the course. It is important to ensure that credits earned by students are reported accurately. The district's information system must be designed to accept multiple credits for the same course number for eligible students with disabilities.

### **Additional Resources**

For additional information regarding articulation agreements, Bright Futures Scholarships, Fine Arts/Practical Arts Credit and Equivalent Mathematics and Equally Rigorous Science Courses please refer to:

Florida Department of Education  
Curriculum Framework

**Program Title:** Continuing Workforce Education  
**Program Type:** Career Preparatory  
**Career Cluster:** Workforce Education

**PSAV**

Program Number	E91010A , E91010M , E91010H, E91010B, E91010C , E91010K, E91010E, E91010X, E91010F, E91010G, E91010N, E91010D, E91010Y, E91010L, E91010J, E91010T, E91010S
CIP Number	1691011001, 16910110002, 1691011003, 1691011005 , 1691011008, 1691011009, 1691011010, 1691011011, 1691011012, 1691011013, 1691011014, 1691011015, 1691011016, 1691011017, 1691011018, 1691011019, 1691011020
Grade Level	30, 31
Standard Length	Multiple hours
Teacher Certification	N/A
SOC Codes (all applicable)	Discipline Specific

**Purpose**

This program offers a sequence of courses that provides coherent and rigorous content aligned with challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and careers in the Workforce Education career cluster; provides technical skill proficiency, and includes competency-based applied learning that contributes to the academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, general employability skills, technical skills, and occupation-specific skills, and knowledge of all aspects of the Workforce Education career cluster.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

**Program Structure**

This program is a planned sequence of instruction consisting of:

- Individuals who are required to have training for licensure renewal or certification renewal by a regulatory agency or credentialing body.
- New or expanding businesses.
- Business, industry, and government agencies whose products or services are changing so fast that retraining of employees is necessary or whose employees need training in specific skills to increase efficiency and productivity.
- Individuals who are enhancing occupational skills necessary to maintain current employment, to cross train, or to upgrade employment.

Community Colleges will continue to report Continuing Workforce Education courses in the Supplemental Vocational Course -- Information Classification Structure (ICS). These codes are:

- 1.21.03 - Agriscience and Natural Resources
- 1.22.03 - Marketing
- 1.23.03 - Health Science
- 1.24.03 - Family and Consumer Sciences
- 1.25.03 - Business Technology
- 1.26.03 - Industrial
- 1.27.03 - Public Service

The length of the course will vary depending on locally defined training requirements.

The purpose of this course is to provide students with instruction that does not result in a vocational certificate, diploma, associate in applied science degree, or associate in science degree. The content of the course may vary as a result of industry and student needs.

The following table illustrates the postsecondary program structure:

OCP	Course/Program Number	Course Title	Length	SOC Code	Grade Level
A	E91010A	CWE – Agriculture and Natural Resources* Name will change to CWE-Agriculture, Food & Natural Resources	Multiple Hours	Discipline Specific	30, 31
A	E91010C	CWE – Architecture and Construction	Multiple Hours	Discipline Specific	30, 31
A	E91010K	CWE – Arts, A/V Technology and Communication	Multiple Hours	Discipline Specific	30, 31
A	E91010B	CWE – Business Technology* Name will change to CWE – Business, Management and Administration	Multiple Hours	Discipline Specific	30, 31
A	E91010E	CWE – Education and Training	Multiple Hours	Discipline Specific	30, 31
A	E91010X	CWE – Energy	Multiple Hours	Discipline Specific	30, 31
A	E91010S	CWE – Engineering and Technology	Multiple Hours	Discipline Specific	30, 31
A	E91010F	CWE – Finance	Multiple Hours	Discipline Specific	30, 31
A	E91010G	CWE – Government and Public Administration	Multiple Hours	Discipline Specific	30, 31
A	E91010H	CWE – Health Science	Multiple Hours	Discipline Specific	30, 31
A	E91010N	CWE – Hospitality and Tourism	Multiple Hours	Discipline Specific	30, 31
A	E91010D	CWE – Human Services	Multiple Hours	Discipline Specific	30, 31
A	E91010Y	CWE – Information Technology	Multiple Hours	Discipline Specific	30, 31
A	E91010L	CWE – Law, Public Safety and Service	Multiple Hours	Discipline Specific	30, 31
A	E91010J	CWE – Manufacturing	Multiple Hours	Discipline Specific	30, 31
A	E91010M	CWE – Marketing* Name will change to CWE –	Multiple Hours	Discipline Specific	30, 31

OCP	Course/Program Number	Course Title	Length	SOC Code	Grade Level
		Marketing Sales and Services			
A	E91010T	CWE – Transportation, Distribution and Logistics	Multiple Hours	Discipline Specific	30, 31



## **Common Career Technical Core – Career Ready Practices**

Career Ready Practices describe the career-ready skills that educators should seek to develop in their students. These practices are not exclusive to a Career Pathway, program of study, discipline or level of education. Career Ready Practices should be taught and reinforced in all career exploration and preparation programs with increasingly higher levels of complexity and expectation as a student advances through a program of study.

1. Act as a responsible and contributing citizen and employee.
2. Apply appropriate academic and technical skills.
3. Attend to personal health and financial well-being.
4. Communicate clearly, effectively and with reason.
5. Consider the environmental, social and economic impacts of decisions.
6. Demonstrate creativity and innovation.
7. Employ valid and reliable research strategies.
8. Utilize critical thinking to make sense of problems and persevere in solving them.
9. Model integrity, ethical leadership and effective management.
10. Plan education and career path aligned to personal goals.
11. Use technology to enhance productivity.
12. Work productively in teams while using cultural/global competence.

## **Standards**

The intended standards of this course will be locally developed.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

Applicable organizations if any are discipline specific for providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Cooperative Training – OJT**

On-the-job training is appropriate but not required for this program. Whenever offered, the rules, guidelines, and requirements specified in the OJT framework apply.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities to meet individual needs and ensure equal access. Postsecondary students with disabilities must self-identify, present documentation, request accommodations if needed, and develop a plan with their counselor and/or instructors. Accommodations received in postsecondary education may differ from those received in secondary education. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Florida Department of Education  
Curriculum Framework

**Program Title:** Pre-Apprenticeship  
**Program Type:** Career Preparatory  
**Career Cluster:** Any Program within an Apprenticeship Occupation

PSAV	
Program Number	E92010R
CIP Number	1691010001
Grade Level	30,31
Standard Length	900 hours
Teacher Certification	Refer to the <b><u>Program Structure</u></b> section.
CTSO	Program Specific
SOC Codes (all applicable)	Discipline Specific
Eligibility	16 Years of Age

**Purpose**

This program offers a sequence of courses that provides coherent and rigorous content aligned with challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and careers in the Apprenticeship Occupation career cluster; provides technical skill proficiency, and includes competency-based applied learning that contributes to the academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, general employability skills, technical skills, and occupation-specific skills, and knowledge of all aspects of the Apprenticeship Occupation career cluster.

The content includes, but is not limited to, communication skills, leadership skills, human relations and employability skills, safe and efficient work practices, and the skills needed to operate and maintain a variety of related equipment and tools.

**Additional Information** relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

## **Program Structure**

This program is a planned sequence of instruction to prepare students for initial employment who are disadvantaged or who have not otherwise had the opportunity to enter into the apprenticeship occupations or upward mobility employment. The program will include related instruction and may include paid on-the-job training, supervised by the employer and teacher/coordinator.

This program focuses on broad, transferable skills and stresses understanding and demonstration of the following elements of the Apprenticeship industry: planning, management, finance, technical and product skills, underlying principles of technology, labor issues, community issues; and health, safety, and environmental issues.

This program is comprised of courses which have been assigned course numbers in the SCNS (Statewide Course Numbering System) in accordance with Section 1007.24 (1), F.S. Career and Technical credit shall be awarded to the student on a transcript in accordance with Section 1001.44(3)(b), F.S.

To teach the courses listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the postsecondary program structure:

OCP	Course Number	Course Title	Teacher Certification	Length	SOC Code
A	SLS0314	Pre-Apprenticeship I	ANY VOCATIONAL FIELD OR COVERAGE	450 hours	Discipline Specific
B	SLS0315	Pre-Apprenticeship II		450 hours	Discipline Specific

## **Common Career Technical Core – Career Ready Practices**

Career Ready Practices describe the career-ready skills that educators should seek to develop in their students. These practices are not exclusive to a Career Pathway, program of study, discipline or level of education. Career Ready Practices should be taught and reinforced in all career exploration and preparation programs with increasingly higher levels of complexity and expectation as a student advances through a program of study.

1. Act as a responsible and contributing citizen and employee.
2. Apply appropriate academic and technical skills.
3. Attend to personal health and financial well-being.
4. Communicate clearly, effectively and with reason.
5. Consider the environmental, social and economic impacts of decisions.
6. Demonstrate creativity and innovation.
7. Employ valid and reliable research strategies.
8. Utilize critical thinking to make sense of problems and persevere in solving them.
9. Model integrity, ethical leadership and effective management.
10. Plan education and career path aligned to personal goals.
11. Use technology to enhance productivity.
12. Work productively in teams while using cultural/global competence.

## **Standards**

After successfully completing this program, the student will be able to perform the following:

- 01.0 Identify apprenticeship occupations.
- 02.0 Identify and properly use subparts in OSHA (Occupational Safety and Health Administration) standards (1926).
- 03.0 Achieve certifications.
- 04.0 Demonstrate appropriate communication skills.
- 05.0 Demonstrate and apply appropriate math and reading skills.
- 06.0 Identify awareness of drugs and drug-free workplace.
- 07.0 Use technology, tools, equipment and supplies safely and correctly.
- 08.0 Read and interpret appropriate technical references and manuals.
- 09.0 Apply designated occupational standards.
- 10.0 Demonstrate an understanding of employability skills.
- 11.0 Demonstrate an understanding of entrepreneurship.
- 12.0 Demonstrate acquired skills through on-the-job training.
- 13.0 Demonstrate leadership and organization skills.
- 14.0 Demonstrate acquired skills through on-the-job training.
- 15.0 Develop a portfolio.

Florida Department of Education  
Student Performance Standards

Program Title: Pre-Apprenticeship  
PSAV Number: E92010R

<b>Course Number: SLS0314</b>	
<b>Occupational Completion Point: A</b>	
<b>Pre-Apprenticeship I – 450 Hours – SOC Code: Discipline Specific</b>	
01.0	Identify apprenticeship occupations. The student will be able to:
01.01	Prepare a list of apprenticeship occupations in the student's area of interest.
01.02	Student will collect information and maintain a notebook on the apprenticeship occupation in which he or she has indicated an interest.
01.03	Contact a representative of the chosen apprenticeship occupation and ask, at a minimum, 10 prepared questions about the student's area of interest.
02.0	Identify and properly use subparts in OSHA (Occupational Safety and Health Administration) standards (1926). The student will be able to:
02.01	Describe how the OSHA standards relate to the student's area of interest.
02.02	Apply OSHA standards to work activities.
02.03	Access and find information on the OSHA website.
03.0	Achieve certifications. The student will be able to:
03.01	Identify the appropriate areas of certification for his or her apprenticeship area. (e.g., safety, first aid, CPR, required information)
03.02	Prepare and test for appropriate certifications in selected occupational area.
04.0	Demonstrate appropriate communication skills. The student will be able to:
04.01	Ask and answer questions coherently and concisely.
04.02	Read and follow written instructions; and listen to and follow oral instructions.
04.03	Give reports orally and in writing.
04.04	Read and interpret reading materials related to the apprenticeship occupation.
04.05	Find information in appropriate literature such as a manufacturer's manual or regulatory requirements.



04.06	Write logical and understandable statements or phrases, and accurately fill out the forms commonly used in the apprenticeship area.
04.07	Communicate job-related information and coordinate with other trades.
04.08	Demonstrate appropriate telephone communication skills.
04.09	Demonstrate trade-related computer skills.
04.10	Explain the chosen occupation culture and the spoken and unspoken rules.
05.0	Demonstrate and apply appropriate math and reading skills. The student will be able to:
05.01	Prepare a workbook containing the formulas, rules of thumb, general knowledge and mathematics used in the student's apprenticeship area.
05.02	Apply basic math, geometry, algebra, and trigonometry to solving problems, with and without a calculator, related to the apprenticeship occupation.
06.0	Identify awareness of drugs and drug-free workplace. The student will be able to:
06.01	Describe the effects of drugs and alcohol on job performance and safety.
06.02	Explain how an alcohol/drug conviction will affect the student's ability to acquire employment.
06.03	Prepare a workbook describing the health-related effects of alcohol/drugs.
07.0	Use technology, tools, equipment and supplies safely and correctly. The student will be able to:
07.01	Correctly use tools and equipment appropriate to apprenticeship occupation.
07.02	Demonstrate the ability to wear, select, adjust, and maintain safety equipment.
07.03	Determine if safety equipment is serviceable.
07.04	Read safety warnings on equipment, chemicals, tools and work sites. Correctly interpret and apply the necessary precautions.
07.05	Read the procedures for servicing equipment and accomplish the needed actions with 100 percent accuracy.
07.06	Determine if equipment used in the apprenticeship occupation is safe.
08.0	Read and interpret appropriate technical references and manuals. The student will be able to:
08.01	Use the charts, graphs and tables to solve problems related to the chosen apprenticeship occupation.
08.02	Design solutions for work problems using data from the appropriate manuals.
08.03	Use Internet resources to acquire technical information for job related problems.

08.04	Read and use appropriate manuals in work assignments. Demonstrate an understanding of the material read through correct procedures and application. Accomplish specified tasks.
08.05	Read and use appropriate manuals for work assignments.
09.0	Apply designated occupational standards. The student will be able to:
09.01	Perform assigned tasks to the appropriate level of competency.
09.02	Select and apply correct standards for a given task.
10.0	Demonstrate an understanding of employability skills. The student will be able to:
10.01	Demonstrate productive work habits and positive attitudes.
10.02	Identify the ethical and responsible practices expected of apprenticeship trainees.
10.03	Demonstrate acceptable personal-hygiene habits and a professional appearance.
10.04	Apply the principles of time management, work simplification, and teamwork when performing assigned tasks.
10.05	Explain the importance of taking pride in the quality of work performed.
10.06	Explain the importance of maintaining a good driver's record and the ramifications of having a poor driving record on employment.
10.07	Demonstrate knowledge of the Federal Hazard Communication regulation (29 CFR 1910.1200).
10.08	Secure information about a job.
10.09	Identify documents that may be required for an application for an apprenticeship program.
10.10	Complete a job-application form.
10.11	Demonstrate competence in job-interview techniques.
10.12	Demonstrate appropriate knowledge of how to make job changes.
10.13	Discuss the need for balancing work and family.
11.0	Demonstrate an understanding of entrepreneurship . The student will be able to:
11.01	Define <i>entrepreneurship</i> .
11.02	Describe the importance of entrepreneurship to the American economy and the role of small business in the free-enterprise system.
11.03	Discuss the advantages and disadvantages of business ownership.
11.04	Discuss the risks involved in the ownership of a business.

11.05	Identify the personal characteristics of a successful entrepreneur.
11.06	Identify the business skills, including computer skills, needed to operate an entrepreneurial business efficiently and effectively.
12.0	Demonstrate acquired skills through on-the job training. The student will be able to:
12.01	Keep daily log of on-the-job activities. Including number of hours worked, skills learned, safety equipment used and hazardous materials used.
13.0	Demonstrate leadership and organizational skill. The student will be able to:
13.01	Define and practice brainstorming.
13.02	Identify and use resource and time management skills.
13.03	Identify characteristics of a leader and team members.
13.04	Identify professional and youth organizations related to the apprenticeship occupation.
13.05	Identify purposes and functions of student organizations related to apprenticeship occupation.

<b>Course Number: SLS0315</b>	
<b>Occupational Completion Point: B</b>	
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14.0	Demonstrate acquired skills through on-the job training. The student will be able to:
14.01	Keep a daily log of on-the-job activities. Including number of hours worked, skills learned, safety equipment used and hazardous materials used.
15.0	Develop a portfolio. The student will be able to:
15.01	Include career and educational goals.
15.02	Provide a copy of social security card.
15.03	Provide autobiography, picture, and résumé.
15.04	Present picture identification, letters of recommendation, and completed job application.
15.05	Provide history of work and volunteer activities.

## **Additional Information**

### **Laboratory Activities**

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students.

### **Special Notes**

MyCareerShines is an interactive resource to assist students in identifying their ideal career and to enhance preparation for employment. Teachers are encouraged to integrate this resource into the program curriculum to meet the employability goals for each student.

### **Career and Technical Student Organization (CTSO)**

The intercurricular career and technical student organization(s) providing leadership training and reinforcing specific career and technical skills is discipline specific. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

### **Cooperative Training – OJT**

On-the-job training is appropriate but not required for this program. Whenever offered, the rules, guidelines, and requirements specified in the OJT framework apply.

### **Accommodations**

Federal and state legislation requires the provision of accommodations for students with disabilities to meet individual needs and ensure equal access. Postsecondary students with disabilities must self-identify, present documentation, request accommodations if needed, and develop a plan with their counselor and/or instructors. Accommodations received in postsecondary education may differ from those received in secondary education. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

Note: postsecondary curriculum and regulated secondary programs cannot be modified.