Florida Department of Education
Curriculum Framework

Program Title: **Ophthalmic Technician**
Career Cluster: **Health Science**

AS	
CIP Number	1351180301
Program Type	College Credit
Standard Length	72 credit hours
CTSO	HOSA: Future Health Professionals
SOC Codes (all applicable)	29-2099 Health Technologists and Technicians, All Other

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 Health Science 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 Health Science career cluster.

The purpose of this program is to prepare students for employment as ophthalmic technicians, optical goods workers SOC Code 29-2099 (Health Technologists and Technicians, All Other) or provide supplemental training for persons previously or presently employed in this occupation.

The content includes but is not limited to (1) to perform specified ophthalmologic tests and procedures with skill, (2) understand and practice the art of ophthalmologic assisting, thereby providing the patient with medical care of the highest quality and accuracy, (3) to become members of the health care team who contribute to the physical and psychological comfort of the patient, (4) to provide a system of quality assurance for both equipment and treatment delivery, (5) and to understand the importance of maintaining membership in the professional organizations and keeping abreast of the changes in the field of ophthalmology.

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 72 credit hours.

Standards

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

01.0 Discuss the ophthalmic practice and personnel.
02.0 Discuss legal and ethical issues in the ophthalmic practice.
03.0 Describe the basic functions of the human body systems.
04.0 Discuss the anatomy and physiology of the human eye.
05.0 Describe the clinical findings of common ocular pathology.
06.0 Demonstrate knowledge of geometric and physiologic optics.
07.0 Demonstrate clinical knowledge of ocular and systemic medications.
08.0 Demonstrate the taking of an ocular and medical history.
09.0 Demonstrate basic ophthalmic clinical skills.
10.0 Demonstrate intermediate ophthalmic clinical skills.
11.0 Demonstrate knowledge of ophthalmic surgical procedures.
12.0 Discuss patient services provided or by the ophthalmic technician.
13.0 Demonstrate office safety and maintenance.
14.0 Demonstrate knowledge of patient vital signs and reactions.
15.0 Demonstrate advanced clinical skills.

Florida Department of Education
Student Performance Standards

Program Title: Ophthalmic Technician
CIP Number: 1351180301
Program Length: 72 credit hours
SOC Code(s): 29-2099

Refer to Rule 6A-14.030 (4) F.A.C., for the minimum amount of general education coursework required in the Associate of Science (AS) degree. At the completion of this program, the student will be able to:	
Ophthalmic Medical Technician: Students completing standards 1-14 meet the qualifications for Ophthalmic Medical Technicians **Ophthalmic Medical Technologist: Students completing standards 1-15 meet the qualifications for Ophthalmic Medical Technologist**	
01.0	Discuss the ophthalmic practice and personnel. - The student will be able to:
01.01	List the professionals who work in the eye care industry.
01.02	Differentiate between licensure and certification of personnel.
01.03	Identify the general responsibilities of ophthalmic technical personnel, the ophthalmic scribe and the administrative staff.
01.04	Define the levels of training and certification of the ophthalmic medical professional.
01.05	Define the scope of practice of the ophthalmic technician.
02.0	Discuss legal and ethical issues in the ophthalmic practice. – The student will be able to:
02.01	Identify methods of protection of personal health information for the patient.
02.02	Summarize the Health Information Portability Accountability Act as it pertains to care of the patient in the ophthalmic clinic.
02.03	Discuss ethical and legal standards of medical care.
02.04	Discuss physician and technician malpractice insurance.
02.05	Describe the process of informed consent.
03.0	Describe the basic functions of the human body systems. – The student will be able to:
03.01	Discuss the components and functions of the respiratory and cardiovascular system.

	03.02 Describe the anatomy and physiology of the endocrine and reproductive systems.
	03.03 Identify the components of the integumentary and digestive systems.
	03.04 Describe the structure and function of the musculoskeletal system.
	03.05 Discuss the components and functions of the nervous system.
04.0	Discuss the anatomy and physiology of the human eye. – The student will be able to:
	04.01 Identify the bones and soft tissues of the orbit.
	04.02 List the components of the anterior and posterior segments of the eye.
	04.03 Discuss the anatomy of the eyelids and lacrimal system.
	04.04 Describe the anatomy and physiology of the cornea and lens.
	04.05 List the primary functions of the fibrous, vascular and sensory tunics of the eye.
	04.06 Discuss the origins and functions of the extraocular muscles.
	04.07 Identify the cranial nerves associated with movement and sensation of the ocular structures.
	04.08 Describe the visual and pupillary pathways.
	04.09 Discuss the pupillary light reflex.
	04.10 Describe the process of accommodation.
05.0	Describe the clinical findings of common ocular pathology. – The student will be able to:
	05.01 Discuss the principles of pathology.
	05.02 Discuss basic microbiology as it applies to the ocular structures.
	05.03 Identify disorders of the orbit.
	05.04 Identify benign and malignant lesions of the eyelids.
	05.05 List eyelid disorders due to malposition.
	05.06 Discuss disorders of the lacrimal system.
	05.07 Identify disorders of the conjunctiva and sclera.

	05.08 Describe abnormal findings of the cornea.
	05.09 Discuss intraocular inflammation of the iris and ciliary body.
	05.10 Describe cataractous changes in the crystalline lens.
	05.11 Discuss the ocular and visual changes associated with glaucoma.
	05.12 List the signs and symptoms related to macular disease.
	05.13 Discuss the retinal vascular changes associated with diabetes and cardiovascular disease.
06.0	Demonstrate knowledge of geometric and physiologic optics. – The student will be able to:
	06.01 Discuss the visible spectrum and theories of visible light.
	06.02 Describe the processes of reflection, refraction and absorption of visible light.
	06.03 Discuss the index of refraction of different media.
	06.04 Describe the process of refraction through a prism and a lens.
	06.05 Calculate the focal length of a lens.
	06.06 Identify the principle focal lines and Conoid of Sturm of a spherocylinder lens.
	06.07 Discuss human refractive errors.
	06.08 Identify lenses used in the correction of refractive errors.
	06.09 Transpose prescriptions between plus and minus cylinder format.
	06.10 Calculate a spherical equivalent power of a spherocylinder lens.
07.0	Demonstrate clinical knowledge of ocular and systemic medications. – The student will be able to:
	07.01 Describe methods of delivery of ophthalmic and systemic medications.
	07.02 Use accepted terminology and abbreviations related to pharmacology.
	07.03 List ophthalmic medications used in the general ophthalmic examination.
	07.04 Classify ophthalmic topical medications by the bottle top colors.
	07.05 List topical medications used in the treatment of glaucoma.

	07.06 Instill ophthalmic drops and ointments using proper technique.
	07.07 Identify potential side effects of topical ophthalmic medications.
	07.08 Describe the mechanism of action of anti-VEGF medications in macular degeneration and diabetic retinopathy.
	07.09 Match commonly prescribed systemic medications with the disease process.
	07.10 List potential ocular side effects of systemic medications.
08.0	Demonstrate the taking of an ocular and medical history. – The student will be able to:
	08.01 Communicate effectively in written and oral communication.
	08.02 Document information in the written or electronic patient record.
	08.03 Document information in the medical record using appropriate medical terminology and accepted abbreviations.
	08.04 Preserve patient confidentiality using HIPAA guidelines.
	08.05 Maintain applicable ethical and legal standards.
	08.06 Elicit the patient's chief complaint and history of present illness.
	08.07 Identify pertinent ocular and systemic history that could affect the patient's ocular health.
	08.08 Record ocular and systemic medicines.
	08.09 Obtain pertinent family history of ocular and systemic disease.
	08.10 Elicit the social history as it pertains to the ocular examination.
	08.11 Record patient allergies and allergic reactions to medicines, environmental substances and seasonal allergens.
09.0	Demonstrate basic ophthalmic clinical skills. – The student will be able to:
	09.01 Test and record the patient's level of visual acuity at distance and at near.
	09.02 Test and record the visual acuity level using a pinhole.
	09.03 Select non-traditional methods of visual acuity assessment for non-verbal, illiterate or non-English speaking patients.
	09.04 Neutralize the patient's current spectacle correction by manual lensometry.
	09.05 Measure and record the corneal surface refractive power by keratometry.

	09.06 Assess the patient's color vision.
	09.07 Test and record the central visual field using an Amsler grid.
	09.08 Test and record the patient's visual field using confrontation testing.
	09.09 Perform formal visual field assessment using automated perimetry.
	09.10 Discuss patient and technician errors in automated perimetry testing.
	09.11 Determine the binocular status of the patient using fusion and stereopsis testing.
	09.12 Assess the extraocular motility by version and duction testing.
	09.13 Identify and measure extraocular muscle imbalances using cover tests and prisms.
	09.14 Estimate the ocular muscle deviation by corneal reflex positions.
	09.15 Assess and record the pupillary reactions to light and accommodation.
	09.16 Perform swinging flashlight test.
	09.17 Examine the ocular adnexa and record the findings.
	09.18 Instill topical anesthetic and dilating drops.
	09.19 Perform and record applanation tonometry.
10.0	Demonstrate intermediate ophthalmic clinical skills. – The student will be able to:
	10.01 Perform retinoscopy to determine the patient's refractive error.
	10.02 Demonstrate refractometry techniques to obtain the best corrected visual acuity.
	10.03 Perform manifest and cycloplegic refractometry.
	10.04 Perform lensometry to neutralize ground-in or induced prism.
	10.05 Determine additional power required for near or intermediate tasks.
	10.06 Assess the anterior segment using the slit lamp biomicroscope.
	10.07 Perform axial length measurements using ultrasound and optical instruments.
	10.08 Calculate the intraocular lens power range in the pre-operative cataract evaluation.

	10.09 Perform optical imaging of the retina and optic nerve.
	10.10 Use digital or film cameras to obtain external, anterior segment or fundus images.
	10.11 Measure the corneal thickness by pachymetry.
	10.12 Map the corneal surfaces by corneal topography.
	10.13 Identify commonly performed diagnostic procedures for glaucoma, cataracts and other pathology.
	10.14 Identify abnormal findings in ophthalmic diagnostic testing.
	10.15 Perform basic soft and rigid contact lens fitting.
11.0	Demonstrate knowledge of ophthalmic surgical procedures. – The student will be able to:
	11.01 Identify minor surgery procedures performed in the ophthalmic clinical setting.
	11.02 Describe surgical procedures commonly performed on the orbits, lacrimal system and eyelids.
	11.03 List procedures performed for correction of strabismus.
	11.04 Identify and describe refractive surgical procedures.
	11.05 Differentiate between full thickness and lamellar corneal transplantation.
	11.06 Discuss the methods of cataract extraction.
	11.07 Classify intraocular lens implants used after cataract extraction.
	11.08 Identify laser and surgical procedures performed as treatment for glaucoma.
	11.09 Discuss methods of removing the vitreous.
	11.10 Describe retinal and macular surgical procedures.
	11.11 Apply proper sterile technique in the minor procedure or surgical suite.
	11.12 Describe proper assisting techniques in minor procedure or surgical cases.
12.0	Discuss patient services provided or by the ophthalmic technician. – The student will be able to:
	12.01 Demonstrate proper technique of placing a pressure or non-pressure eye patch.
	12.02 Demonstrate patient education of ocular and systemic disease processes.

	12.03 Inform the patient of required testing, the interpreted test results, and treatment options for ophthalmic disease processes.
	12.04 Counsel the patients on proper use of medications.
	12.05 Instill ocular medications using proper technique.
	12.06 Discuss triage procedures for ocular emergencies.
	12.07 Identify resources available for the patient with subnormal vision.
	12.08 Instruct patient is the use of optical and non-optical low vision devices.
	12.09 Instruct the patient on the insertion, removal and care of contact lenses.
13.0	Demonstrate office safety and maintenance. – The student will be able to:
	13.01 Identify environmental and electrical safety procedures in the clinical practice.
	13.02 Replace instrument bulbs and fuses employing proper technique and safety standards.
	13.03 Discuss methods of instrument cleaning and maintenance.
	13.04 Maintain clinical supply inventory.
	13.05 Discuss proper disposal of hazardous and bio-medical waste.
	13.06 Describe the principles of infection control and universal precautions.
	13.07 Maintain aseptic technique in the clinical and surgical setting.
	13.08 Identify potential safety hazards in the physical space.
14.0	Demonstrate knowledge of patient vital signs and reactions. – The student will be able to:
	14.01 Perform cardiopulmonary resuscitation in a clinical setting.
	14.02 Measure and record blood pressure.
	14.03 Measure and record patient temperature.
	14.04 Assess patient respiration.
	14.05 Recognize patient allergic response in the clinical setting.
15.0	Demonstrate advanced clinical skills. – The student will be able to:

15.01	Assess visual ability in low vision patients.
15.02	Identify optical low vision aids.
15.03	Identify and neutralize ocular deviations using prism and alternate cover.
15.04	Identify paralytic extraocular muscle using the three-step test.
15.05	Perform advanced ocular imaging procedures.
15.06	Determine prism addition in spectacle correction.
15.07	Calculate induced prism using Prentice’s formula.
15.08	Perform therapeutic contact lens fitting.
15.09	Perform ophthalmic electrophysiology testing.
15.10	Demonstrate clinical supervision skills.
15.11	Demonstrate clinical training techniques.

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.

Clinical education has been established for students in this program to permit accurate assessment of the knowledge, skills, and abilities of students in the clinical component of the program. After completion of the prerequisite practice of ophthalmic assisting procedures, students indicate to the faculty their readiness for evaluation of competence in a specific competency category/procedure.

Multiple affiliates are utilized for the clinical activities which provide equitable opportunities for the student to achieve the program clinical objectives. The resulting clinical rotations provide students with the technical skills for the ophthalmic medical technician.

Special Notes

The program is designed to provide the medical community of ophthalmology with workers who, under the supervision of an ophthalmologist, aid in the treatment of eye conditions and diseases. The curriculum provides students an opportunity to develop technical and social skills through experiences in the clinic, classroom, and laboratory. The Health Careers Core must be taken by all students (secondary, postsecondary adult and postsecondary vocational) planning to complete any Health Occupations program. Once successfully completed, the core does not need to be repeated at any instructional level.

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 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.

Florida Department of Education
Curriculum Framework

Program Title: **Health Navigator**
Career Cluster: **Health Science**

AS	
CIP Number	1351221100
Program Type	College Credit
Standard Length	60 credit hours
CTSO	HOSA: Future Health Professionals
SOC Codes (all applicable)	11.9111 Medical and Health Services Manager 21.1094 Community Health Worker

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 Health Science 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 Health Science career cluster.

The purpose of this program is to prepare students for employment as health navigators. SOC Codes: 11.9111 (Medical and Health Services Manager) or 21.1094 (Community Health Worker) or to provide supplemental training for persons previously or currently employed in these occupations.

The content includes but is not limited to communication skills, leadership skills, human relations and employability skills, principles of health insurance, introduction to computer literacy, health care organization, medical ethics, legal aspects, and advanced technical skills in a chosen health-related profession, health and safety.

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 60 credit hours.

Standards

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

01.0 Demonstrate computer literacy with emphasis on current technology and the implications for and the effects on our society.
02.0 Demonstrate knowledge of practical methods of speech composition, organizational patterns and presentation.
03.0 Demonstrate basic knowledge of medical language, anatomy and physiology.
04.0 Demonstrate knowledge of the major ethical theories in philosophy and how they relate to clinical care.
05.0 Demonstrate knowledge of the use of scientific methods in examining society.
06.0 Meet requirements for CPR Certification.
07.0 Demonstrate knowledge of modern scientific psychology and its application to human behavior.
08.0 Demonstrate knowledge of the basic concepts of statistical design and data analysis.
09.0 Identify and apply basic knowledge of different aspects of wellness.
10.0 Demonstrate knowledge of various topics pertinent to the five core disciplines of public health.
11.0 Demonstrate the ability to identify U.S. health care delivery funding sources.
12.0 Demonstrate ability to work as a health navigator or community health worker.
13.0 Demonstrate knowledge of current events in the field of public health.
14.0 Demonstrate knowledge of health communication and its impact on health outcomes.
15.0 Define and describe: long-term care and types of residences.
16.0 Demonstrate the use of evidence to draw conclusions about disease etiology.
17.0 Demonstrate knowledge of the three primary levels of prevention.
18.0 Demonstrate knowledge of how the insured and uninsured interact with the United States healthcare system.

Florida Department of Education
Student Performance Standards

Program Title: **Health Navigator**
CIP Number: **1351221100**
Program Length: **60 credit hours**
SOC Code(s): **11.9111, 21.1094**

Refer to Rule 6A-14.030 (4) F.A.C., for the minimum amount of general education coursework required in the Associate of Science (AS) degree. At the completion of this program, the student will be able to:	
01.0	Demonstrate computer literacy with emphasis on current technology and the implications for and the effects on our society. – The student will be able to:
01.01	Define cyber space and online communications, including the impact of the Internet and World Wide Web; ethical, privacy, environmental, and health related issues.
01.02	Demonstrate an understanding of how the Internet and World Wide Web impact: ethics, privacy as well as environmental, and health related issues.
02.0	Demonstrate knowledge of practical methods of speech composition, organizational patterns and presentation. – The student will be able to:
02.01	Demonstrate ability to present information in a group setting.
02.02	Demonstrate an understanding of how to organize, aggregate and present information.
03.0	Demonstrate basic knowledge of medical language, anatomy and physiology. – The student will be able to:
03.01	Define, describe and discuss anatomic descriptive terms of the body.
03.02	Demonstrate an understanding of basic patient discharge and transfer procedures.
03.03	Describe common abbreviations and commonly used medical terms and their proper usage.
03.04	Define and describe anatomic names of bones and organs of the body.
04.0	Demonstrate knowledge of the major ethical theories in philosophy and how they relate to clinical care. – The student will be able to:
04.01	Define ethical theories in philosophy and how they are used in evaluating contemporary issues in health care.
04.02	Describe applications of ethical codes.
04.03	Explain variations in ethical standards across health care.
05.0	Demonstrate knowledge of the use of scientific methods in examining society. – The student will be able to:

	05.01 Define and discuss group structure.
	05.02 Define and discuss socialization, social stratification and social roles.
	05.03 Explain deviance, collective behavior, ethnic diversity and globalism.
06.0	Meet requirements for CPR Certification. – The student will be able to:
	06.01 Demonstrate knowledge and skills necessary in an emergency to help sustain life until professional medical help arrives.
	06.02 Demonstrate knowledge and skills necessary in an emergency to reduce pain until professional medical help arrives.
	06.03 Demonstrate knowledge and skills necessary in an emergency to minimize the consequences of injury until professional medical help arrives.
07.0	Demonstrate knowledge of modern scientific psychology and its application to human behavior. – The student will be able to:
	07.01 Discuss personality development.
	07.02 Define: perception, motivation, learning, thinking, and remembering.
	07.03 Describe how the scientific method is used in psychology.
	07.04 Explain emotion and how it impacts perception.
	07.05 Define intelligence and describe how it is measured.
	07.06 Define cognition and how information is input, stored and retrieved.
08.0	Demonstrate knowledge of the basic concepts of statistical design and data analysis. – The student will be able to:
	08.01 Discuss descriptive and inferential statistics.
	08.02 Define: data organization and analysis, probability, discrete and continuous probability distributions, confidence intervals, hypothesis testing, correlation and simple linear regression.
	08.03 Describe when to use inferential, descriptive or probability statistics.
	08.04 Define basic statistics: mean, median, mode and variance.
09.0	Identify and apply basic knowledge of different aspects of wellness. – The student will be able to:
	09.01 Discuss integrating health living into one’s lifestyle.
	09.02 Define: physical fitness, mental health, nutrition, tobacco usage, alcohol consumption, illicit drug use, family living and how these factors connect with the concepts of wellness on a personal level.
	09.03 Identify the risk factors for cardiovascular disease.

	09.04	Describe the effects of tobacco and smoking on the human body.
	09.05	Describe the various fitness methods to improve health.
	09.06	Discuss the effects of nutrition on health and wellness.
	09.07	Explain body composition and achieving a healthy weight.
	09.08	Describe stress management strategies.
	09.09	Discuss the use and abuse of illicit drugs in society.
	09.10	Describe the effects of chronic disease on the human body.
10.0	Demonstrate knowledge of various topics pertinent to the five core disciplines of public health. – The student will be able to:	
	10.01	Define public health.
	10.02	Describe core disciplines of public health: Community and Family Health, Environmental and Occupational Health, Health Policy and Management, Epidemiology/Biostatistics and Global Health.
	10.03	Describe why public health is important.
	10.04	Summarize the historical milestones in public health.
	10.05	Identify and describe the five core disciplines of public health.
	10.06	Identify elements of public health in our everyday world.
	10.07	Explain the concepts of: prevention, detection, control of infectious and chronic conditions, health disparities, and global health.
	10.08	Compare and contrast examples of major domestic and international public health issues.
11.0	Demonstrate the ability to identify U.S. health care delivery funding sources. – The student will be able to:	
	11.01	Demonstrate an understanding of the evolutionary perspective of health services and its relevance with the existing healthcare system, facilities and services.
	11.02	Explain the social, political, and public policy implications of health-related issues, such as availability, cost, delivery, and financing.
	11.03	Describe the various health care organizations and service delivery options.
	11.04	Identify the major health professions and explain the role of each and their licensing/educational requirements.
	11.05	Compare and contrast the health care delivery systems of the U.S. with other major industrialized nations.
	11.06	Understand the array of career choices in the health care sector of the economy.

	11.07 Discuss the various sources and uses of funds for healthcare as well as market trends and future implications.
12.0	Demonstrate ability to work as a health navigator or community health worker. – The student will be able to:
	12.01 Identify community agencies where health navigators are employed.
	12.02 Complete a field experience that provides student with descriptions of primary duties, annual salary and interaction with professional organization.
	12.03 Demonstrate an understanding of the essential duties of health navigators.
	12.04 Describe barriers to care faced by patients and consumers of placement site.
	12.05 Discuss the core health activities of placement site.
	12.06 Demonstrate an understanding of how placement site works with: local, county, state and federal agencies.
	12.07 Evaluate the role of health navigation in patient health care.
	12.08 Demonstrate communication techniques to assess patient health and needs.
13.0	Demonstrate knowledge of current events in the field of public health. – The student will be able to:
	13.01 Identify outlets (news, media, governmental) used to communicate public health events to the general public.
	13.02 Describe the implications of current events on public health.
	13.03 Discuss concerns related to how public health information is relayed to the public.
	13.04 Recognize how reporting of global events (e.g. epidemics, regime change, and weather events) has the potential to impact other areas.
	13.05 Locate emerging public health trends.
	13.06 Explain etiology of emerging public health trends discussed throughout semester.
	13.07 Discuss legislation designed to protect the public's right to information during major health events (epidemics, terrorism, natural disasters).
14.0	Demonstrate knowledge of health communication and its impact on health outcomes. – The student will be able to:
	14.01 Describe key concepts and skills used to identify individuals with reduced health literacy.
	14.02 Explain how understanding health literacy is as a determinant of health.
	14.03 Discuss how to best provide culturally-appropriate communication and care starting with an awareness of one's own culture and the skills needed to provide sensitive and meaningful care and services to others.
	14.04 Discuss basic constructs of theories used in behavior change and persuasion.

	14.05 Classify health communication programs based on disease type (e.g. chronic vs. infectious).
	14.06 Determine communication methods to be used in specific settings (healthcare, school, and workplace).
	14.07 Discuss risks and rewards associated with use of digital communication in health care.
15.0	Define and describe: long-term care and types of residences. – The student will be able to:
	15.01 Explain psychological factors associated with the graying of populations in developed areas.
	15.02 Describe demographic characteristics of aging population.
	15.03 Describe the phenomenon of increasing life expectancy.
	15.04 Discuss health promotion and prevention for aging populations.
	15.05 Compare and contrast aging populations across the 20 and 21st centuries.
	15.06 Summarize the geriatric medicine movement.
16.0	Demonstrate the use of evidence to draw conclusions about disease etiology. - The student will be able to:
	16.01 Define evidenced based thinking in public health.
	16.02 Identify evidence based recommendations to determine disease etiology, benefits and basic recommendations for prevention.
	16.03 Discuss health information concepts related to economic, legal and social issues.
	16.04 Investigate a problem by using evidenced based thinking skills to define a health problem and determine what information is needed to make a decision.
	16.05 Locate and evaluate online health information to determine appropriate audiences are reached using specific content to the demographic group.
17.0	Demonstrate knowledge of the three primary levels of prevention. – The student will be able to:
	17.01 Discuss implementation methods of prevention used in public health: education, motivation and obligation.
	17.02 Describe the three levels of prevention in public health: primary, secondary, and tertiary.
	17.03 Explain how preventative methods can be used throughout the life-cycle.
	17.04 Identify individual and community prevention needs in order to connect available resources to distressed areas.
	17.05 Summarize specific primary prevention methods including: vaccinations, exercise, nutrition counseling, and birth control.
	17.06 Summarize secondary prevention methods including: screening for risk factors of cardiovascular disease and injury prevention.

	17.07 Summarize specific tertiary prevention methods including: treatment to control symptoms and prevent complications.
18.0	Demonstrate knowledge of how the insured and uninsured interact with the United States healthcare system. – The student will be able to:
	18.01 Identify types of health insurance, e.g., Medicaid, Medicare and Medigap, exchanges, employment-based.
	18.02 Accurately describe the history of the development of the U.S. Healthcare system.
	18.03 Explain the relationship between essential services such as: preventive care, emergency care, choice of providers, institutional options, prescription drug options and coverage decisions.
	18.04 Describe issues associated with having access to care in the absence of health insurance and consequences of the decision not to obtain health insurance.
	18.05 Explain goals, limitations and basic rules for eligibility for worker's compensation.
	18.06 Discuss market and social justice philosophies in relation to health care coverage internationally.
	18.07 Describe the advantages and disadvantages of the U.S. health care coverage system.

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.

Career and Technical Student Organization (CTSO)

HOSA: Future Health Professionals 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 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.

Certificate Programs

A College Credit Certificate consists of a program of instruction of less than sixty (60) credits of college-level courses, which is part of an AS or AAS degree program and prepares students for entry into employment (Rule 6A-14.030, F.A.C.). This AS degree program includes the following College Credit Certificates:

Health Navigator Specialist (0351221100) - 31 credit hours

Standards for the above certificate programs are contained in separate curriculum frameworks.

Florida Department of Education
Curriculum Framework

Program Title: **Orthotics & Prosthetics Technology**
Career Cluster: **Health Science**

AS	
CIP Number	1351230703
Program Type	College Credit
Standard Length	60 credit hours
CTSO	HOSA
SOC Codes	51-9082- Medical Appliance technicians

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 Health Science 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 Health Science career cluster.

This program is designed to prepare students for employment as Orthotic and Prosthetic Technicians (SOC Code 51-9082.00: Medical Appliance Technicians).

The content includes, but is not limited to, human anatomy and physiology, biomechanics and kinesiology, material science, orthotic and prosthetic fabrication, safety procedures, CAD/CAM, and clinical pathologies.

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 60 credit hours.

Standards

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

01.0 Discuss and understand the role and responsibilities of an orthotic and prosthetic technician.
02.0 Discuss and describe an overview of the human body, including organization and chemical process.
03.0 Demonstrate knowledge and use medical terminology integral to Orthotics and Prosthetic technology.
04.0 Demonstrate knowledge of foot orthoses.
05.0 Demonstrate knowledge of UCBL foot orthoses.
06.0 Demonstrate knowledge of Ankle Foot Orthoses (AFO).
07.0 Demonstrate knowledge of Knee-Ankle-Foot Orthoses (KAFO).
08.0 Demonstrate knowledge of Hip-Knee-Ankle-Foot Orthoses(HKAFO), Standing Frames/Parapodiums.
09.0 Demonstrate knowledge of Knee Orthoses (KO) and Hip Orthoses.
10.0 Demonstrate the knowledge of Hand Orthoses and Wrist-Hand Orthose.s
11.0 Demonstrate knowledge of Elbow Orthoses Shoulder-Elbow-Wrist-Hand (SEWH) and Fracture Orthoses.
12.0 Demonstrate knowledge of Lumbo-Sacral Orthoses (LSO), Thoraco-Lumbo-Sacral Orthoses (TLSO) and Cervico-Thoraco-Lumbo-Sacral Orthoses (CTLSO).
13.0 Demonstrate knowledge of Partial Foot Prostheses.
14.0 Demonstrate knowledge of Syme Prostheses.
15.0 Demonstrate knowledge of Transtibial Prostheses.
16.0 Demonstrate knowledge of Transfemoral Prostheses.
17.0 Demonstrate knowledge of Knee Disarticulation and Hip Disarticulation / Hemipelvectomy Prostheses.
18.0 Demonstrate knowledge of Transradial Prostheses.
19.0 Demonstrate knowledge of Transhumeral Prostheses.

Florida Department of Education
Student Performance Standards

Program Title: **Orthotics & Prosthetics Technology**
CIP Number: **1351230703**
Program Length: **60 credit hours**
SOC Code(s): **51-9082.00**

Refer to Rule 6A-14.030 (4) F.A.C., for the minimum amount of general education coursework required in the Associate of Science (AS) degree. At the completion of this program, the student will be able to:	
01.0	Discuss and understand the role and responsibilities of an Orthotic and Prosthetic Technician. - The student will be able to:
01.01	Explain the role of the orthotic and prosthetic technician in providing ethical patient-centered care in technical support of patients.
01.02	Demonstrate knowledge of professional responsibilities of the orthotic and prosthetic technician to the orthotic and prosthetic workflow as well as to promotion of the field.
01.03	Demonstrate understanding of the governing statutes and ethical considerations of the role of the technician, support personnel, and those holding certificates and/or licensure in any orthotic and prosthetic profession.
01.04	Demonstrate understanding of safety procedures throughout fabrication, delivers, and maintenance of all orthotic and/or prosthetic services.
01.05	Demonstrate knowledge of safety organizations and governing bodies including, but not limited to, OSHA, The Joint Commission, and HIPPA.
01.06	Discuss the importance of professional development including continuing education, promotion of public awareness of the orthotic and prosthetic profession and involvement in professional organizations.
02.0	Discuss and describe an overview of the human body, including organization and chemical process. - The student will be able to:
02.01	Demonstrate an understanding of the interrelationships of the structure of the human body and the specific functions of its cells, tissues, organs and organ systems.
02.02	Demonstrate knowledge of the basic principles of chemistry that govern the normal maintenance of homeostasis.
02.03	Demonstrate understanding of the malfunction of homeostatic mechanisms in response to stress and/or disorders in the human body.
03.0	Demonstrate knowledge and use medical terminology integral to Orthotics and Prosthetic Technology. - The student will be able to:
03.01	Define the meaning of prefixes, suffixes, word roots and combining forms used in analyzing and defining medical terms.
03.02	Correctly spell and/or pronounce medical terms and abbreviations essential to the practice of Orthotics and Prosthetics.
04.0	Demonstrate knowledge of foot orthoses. - The student will be able to:

	04.01	Demonstrate knowledge of current materials used in the fabrication of hard and soft foot orthoses.
	04.02	Understand the difference between corrective and accommodative foot orthoses.
	04.03	Demonstrate knowledge and skill to prepare positive models for foot orthoses (category I and II modifications only*).
	04.04	Demonstrate skill to form materials to fabricate hard and soft orthoses.
	04.05	Demonstrate knowledge and skill of modifications of foot orthoses.
	04.06	Demonstrate knowledge and skill to correctly fit foot orthoses into shoes including corrections for heel height.
	04.07	Demonstrate knowledge of shoe modification.
	04.08	Demonstrate knowledge of anatomy and biomechanics of the normal and pathological foot.
05.0	Demonstrate knowledge of UCBL foot orthoses. - The student will be able to:	
	05.01	Demonstrate knowledge of the bony landmarks and pressure tolerant areas of the foot.
	05.02	Demonstrate knowledge to locate the medial, lateral, and transverse arches of the foot.
	05.03	Demonstrate knowledge and skill to prepare a positive UCBL model for fabrication (category I and II modifications only*).
	05.04	Demonstrate knowledge of materials used to fabricate UCBL orthoses.
	05.05	Demonstrate knowledge and skill in the processes used to fabricate UCBL orthoses including medial posting and trim lines.
06.0	Demonstrate knowledge of Ankle Foot Orthoses (AFO). - The student will be able to:	
	06.01	Demonstrate knowledge of the following AFO designs:
	06.01.01	Posterior leaf spring/flexible ankle
	06.01.02	Thermoplastic solid ankle
	06.01.03	Axial resisting
	06.01.04	CROW/neuropathic walker
	06.01.05	Metal
	06.01.06	Dorsiflexion assist articulated
	06.01.07	Dorsiflexion stop articulated

	06.01.08	Plantarflexion resist articulated
	06.01.09	Plantarflexion stop articulated
	06.01.10	Limited motion articulated
	06.01.11	Hybrid
	06.01.12	Padded anterior shell
	06.01.13	Molded inner boot
06.02	Demonstrate the skills to fabricate:	
	06.02.01	A thermoplastic AFO
	06.02.02	A metal AFO with attached shoe
	06.02.03	An articulated plastic AFO with self-aligning joints (Tamarack)
	06.02.04	An articulated plastic AFO without self-aligning joins (Oklahoma)
	06.02.05	Heel posts
	06.02.06	Various strapping configurations
	06.02.07	A plastic AFO with modification for varus and/or valgus ankle control
06.03	Demonstrate knowledge of components for various AFOs.	
06.04	Demonstrate the knowledge and skills to correct a paper tracing to accommodate fixed or flexible deformities of the ankle.	
06.05	Demonstrate knowledge and skill in making angular changes to a negative model in the sagittal plane, only under a practitioner's instruction (i.e. set ankle at 3 degrees of dorsiflexion).	
06.06	Demonstrate knowledge and skill to prepare positive models for fabrication of AFOs (category I and II modifications only*).	
06.07	Demonstrate knowledge of anatomy and biomechanics of the normal and pathological foot and ankle.	
07.0	Demonstrate knowledge of Knee-Ankle-Foot Orthoses (KAFO). - The student will be able to:	
07.01	Demonstrate knowledge of the following KAFO designs:	
	07.01.01	Metal
	07.01.02	Plastic

	07.01.03	Hybrid
	07.01.04	Stance Control
	07.01.05	Axial resisting
	07.01.06	Fracture
07.02	Demonstrate the skills to fabricate:	
	07.02.01	A metal KAFO
	07.02.02	A plastic/metal (hybrid) KAFO
07.03	Demonstrate knowledge of components for coronal, sagittal and transverse plane control.	
07.04	Demonstrate the knowledge and skills to correct a lower limb tracing for a KAFO.	
07.05	Demonstrate knowledge and skill in making angular changes to a negative model in the sagittal plane, only under a practitioner's instruction (i.e. set knee in 3 degrees of flexion).	
07.06	Demonstrate skill to prepare a lower limb positive model for fabrication of a KAFO (category I and II modifications only*).	
07.07	Demonstrate skill to incorporate tibial torsion into a metal KAFO.	
07.08	Demonstrate knowledge of anatomy and biomechanics of the normal and pathological knee.	
08.0	Demonstrate knowledge of Hip-Knee-Ankle-Foot Orthoses (HKAFO), Standing Frames/Parapodiums. - The student will be able to:	
08.01	Demonstrate knowledge of the following HKAFO and standing frame designs:	
	08.01.01	Standing frames and parapodiums
	08.01.02	Reciprocating gait orthoses
	08.01.03	Metal HKAFO designs
	08.01.04	Plastic HKAFO designs
08.02	Demonstrate knowledge of components for various HKAFO designs.	
08.03	Demonstrate knowledge of hip joint placement.	
08.04	Demonstrate knowledge of tracing correction principles for fabrication of HKAFOs.	
08.05	Demonstrate knowledge of spinal control devices that may be incorporated in HKAFO designs.	

	08.06 Demonstrate knowledge of anatomy and biomechanics of the normal and pathological hip.
09.0	Demonstrate knowledge of Knee Orthoses (KO) and Hip Orthoses. - The student will be able to:
	09.01 Demonstrate knowledge of custom and prefabricated KO designs and principles.
	09.02 Demonstrate knowledge pediatric hip control orthoses.
	09.03 Demonstrate knowledge of post-surgical/trauma hip control orthoses.
10.0	Demonstrate the knowledge of Hand Orthoses and Wrist-Hand Orthoses. - The student will be able to:
	10.01 Demonstrate knowledge and skill to fabricate plastic and/or metal hand orthosis and wrist- hand orthoses.
	10.02 Demonstrate knowledge and skill to prepare positive models (category I and II modifications only*).
	10.03 Demonstrate knowledge of anatomy and biomechanics of the normal and pathological hand and wrist.
11.0	Demonstrate knowledge of Elbow Orthoses Shoulder-Elbow-Wrist-Hand (SEWH) and Fracture Orthoses. - The student will be able to:
	11.01 Demonstrate knowledge of Elbow orthoses.
	11.02 Demonstrate knowledge of SEWH orthoses.
	11.03 Demonstrate knowledge of various upper extremity orthoses for fracture management.
	11.04 Demonstrate knowledge of anatomy and biomechanics of the normal and pathological elbow.
12.0	Demonstrate knowledge of Lumbo-Sacral Orthoses (LSO), Thoraco-Lumbo-Sacral Orthoses(TLSO) and Cervico-Thoraco-Lumbo-Sacral Orthoses (CTLSO). - The student will be able to:
	12.01 Demonstrate knowledge of metal and plastic LSO and TLSO designs.
	12.02 Demonstrate skills to fabricate metal LSO or TLSO spinal orthoses designs.
	12.03 Demonstrate skills to fabricate plastic bi-valve TLSO or LSO spinal orthoses designs.
	12.04 Demonstrate skills to fabricate scoliosis TLSO designs.
	12.05 Demonstrate knowledge and skill to prepare positive models for spinal orthoses (category I and II modifications only*).
	12.06 Demonstrate knowledge of metal and plastic CTLSO designs and principles.
	12.07 Demonstrate knowledge of anatomy and biomechanics of the normal and pathological spine.
13.0	Demonstrate knowledge of Partial Foot Prostheses. - The student will be able to:

	13.01 Demonstrate knowledge of designs and principles for partial foot prostheses.
	13.02 Demonstrate knowledge of current materials used in the fabrication of partial foot prostheses.
	13.03 Demonstrate skill to form materials to fabricate partial foot prostheses.
	13.04 Demonstrate knowledge and skill to prepare positive models for partial foot prostheses (category I modifications only*).
14.0	Demonstrate knowledge of Syme Prostheses. - The student will be able to:
	14.01 Demonstrate knowledge of designs for Syme prostheses.
	14.02 Demonstrate the skills to fabricate expandable wall and/or medial opening prostheses.
	14.03 Demonstrate knowledge and skill to prepare positive models for Syme prostheses (category I modifications only*).
	14.04 Demonstrate knowledge of alignment for Syme prostheses.
15.0	Demonstrate knowledge of Transtibial Prostheses. - The student will be able to:
	15.01 Demonstrate knowledge of patellar tendon-bearing transtibial socket designs with cuff suspensions systems.
	15.02 Demonstrate knowledge of total surface bearing transtibial socket designs.
	15.03 Demonstrate knowledge of hydrostatic transtibial socket designs using a locking mechanism.
	15.04 Demonstrate knowledge of roll-on suction suspension systems.
	15.05 Demonstrate knowledge of waist belt suspension systems.
	15.06 Demonstrate knowledge of supracondylar suspension systems.
	15.07 Demonstrate knowledge of knee joint and thigh lacer suspension systems.
	15.08 Demonstrate knowledge of transtibial suspension sleeves.
	15.09 Demonstrate knowledge of elevated vacuum transtibial socket designs and suspension systems.
	15.10 Demonstrate the skills to fabricate an Exoskeletal transtibial prosthesis.
	15.11 Demonstrate the skills to fabricate an Endoskeletal transtibial prosthesis.
	15.12 Demonstrate the skills to fabricate a Soft interface for a transtibial prosthesis.
	15.13 Demonstrate the skills to fabricate a transtibial diagnostic socket.

	15.14 Demonstrate knowledge of components for various transtibial prostheses.
	15.15 Demonstrate knowledge and skill to prepare positive models for transtibial prostheses (category I modifications only*).
	15.16 Demonstrate the skills of transtibial alignment and transfer.
	15.17 Demonstrate techniques for cosmetic finishing of a transtibial prostheses.
16.0	Demonstrate knowledge of Transfemoral Prostheses. - The student will be able to:
	16.01 Demonstrate knowledge of Ischial containment transfemoral socket designs and suspensions systems:
	16.02 Demonstrate knowledge of quadrilateral transfemoral socket designs.
	16.03 Demonstrate knowledge of roll-on suction transfemoral suspension systems with or without locking mechanisms.
	16.04 Demonstrate knowledge of hip joint, pelvic band, and waist belt transfemoral suspension systems.
	16.05 Demonstrate knowledge of suction socket transfemoral socket designs and suspension systems.
	16.06 Demonstrate knowledge of auxiliary suspension systems (TES belt, Silesian bandage).
	16.07 Demonstrate knowledge of transfemoral suspension sleeves.
	16.08 Demonstrate knowledge of elevate vacuum transfemoral socket designs and suspension systems.
	16.09 Demonstrate the skills to fabricate transfemoral diagnostic sockets.
	16.10 Demonstrate the skills to fabricate endoskeleton transfemoral prosthesis.
	16.11 Demonstrate knowledge of components for various transfemoral prostheses.
	16.12 Demonstrate knowledge and skills to prepare positive models for transfemoral prostheses (category I modifications only*).
	16.13 Demonstrate the skills of transfemoral alignment and transfer.
	16.14 Demonstrate techniques for cosmetic finishing of transfemoral prostheses.
17.0	Demonstrate knowledge of Knee Disarticulation and Hip Disarticulation / Hemipelvectomy Prostheses. - The student will be able to:
	17.01 Demonstrate knowledge of knee disarticulation prosthetic designs and principles.
	17.02 Demonstrate knowledge of hip disarticulation and hemipelvectomy prosthetic designs and principles.
18.0	Demonstrate knowledge of Transradial Prostheses. - The student will be able to:

18.01	Demonstrate knowledge of partial hand prosthesis designs and principles.
18.02	Demonstrate knowledge of passive/cosmetic prosthesis designs and principles.
18.03	Demonstrate knowledge of flexible and rigid hinges for transradial prostheses.
18.04	Demonstrate knowledge of transradial suspension techniques.
18.05	Demonstrate knowledge of body powered transradial prosthesis designs and principles.
18.06	Demonstrate knowledge of external powered transradial prosthesis designs and principles.
18.07	Demonstrate the skills to fabricate short transradial prosthesis.
18.08	Demonstrate the skills to fabricate long transradial prosthesis.
18.09	Demonstrate the skills to fabricate transradial prostheses with rigid and flexible hinges.
18.10	Demonstrate the skills to fabricate transradial prosthesis control harness and cable systems.
18.11	Demonstrate knowledge of components for various transradial prostheses.
18.12	Demonstrate knowledge and skill to prepare positive models for transradial prostheses (category I modifications only*****).
18.13	Demonstrate the skill of transradial alignment.
18.14	Demonstrate techniques for cosmetic finishing of transradial prostheses.
19.0	Demonstrate knowledge of Transhumeral Prostheses. - The student will be able to:
19.01	Demonstrate knowledge of the elbow disarticulation prosthesis designs and principles.
19.02	Demonstrate knowledge of shoulder disarticulation prosthesis designs and principles.
19.03	Demonstrate knowledge of interscapular-thoracic prosthesis designs and principles.
19.04	Demonstrate knowledge of transhumeral prosthesis designs and principles.
19.05	Demonstrate knowledge of passive/cosmetic transhumeral designs and principles.
19.06	Demonstrate knowledge of body powered transhumeral designs and principles.
19.07	Demonstrate knowledge of external powered transhumeral designs and principles.
19.08	Demonstrate knowledge of transhumeral suspension techniques.

19.09	Demonstrate the skills to fabricate transhumeral prostheses.
19.10	Demonstrate the skills to fabricate a transhumeral control harness and cable system.
19.11	Demonstrate knowledge of components for various transhumeral prostheses.
19.12	Demonstrate knowledge and skill to prepare positive models for transhumeral prostheses (category I modifications only*).
19.13	Demonstrate the skill of transhumeral alignment.
19.14	Demonstrate techniques for cosmetic finishing of transhumeral prostheses.

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

**Definition/hierarchy of modifications:*

- *Category I - Artifact modifications*
  - *Removal of surface deformations caused by poor casting technique*
  - *Filling of voids produced by air in the plaster mixture, cast sock/nylon separation*
  - *Extraneous surface irregularities resulting from cast seams, leaks, etc.*
  - *Any other surface modifications and smoothing procedures that do not substantially alter the surface topography or biomechanical attributes of the model*
- *Category II - Accommodative modifications*
  - *Standardized buildups/reliefs over well-identified common areas of concern such as malleoli, bony prominences on foot, knee joint regional prominences, etc.*
- *Category III - Biomechanical modifications*
  - *Modifications to negative/positive model resulting in significant changes to the volumetric/weight-distribution characteristics of the ensuing socket*
  - *Any changes to the negative/positive model that would alter the pre-existing biomechanical properties of the model*

Students who complete an Orthotic & Prosthetic Technician Programs accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) are eligible to sit for the Certified O & P Technician examination through the American Board for Certification in Orthotics, Prosthetics & Pedorthics (ABCOP).

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 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.

Florida Department of Education
Curriculum Framework

Program Title: **Nursing R.N.**
Career Cluster: **Health Science**

AS	
CIP Number	1351380100
Program Type	College Credit
Standard Length	72 Credits Hours
CTSO	HOSA: Future Health Professionals
SOC Codes (all applicable)	29-1141 Registered Nurses

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 Health Science 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 Health Science career cluster.

The purpose of this program is to prepare students for employment as registered nurses SOC Code 29.1141 (Registered Nurses).The Health Careers Core must be taken by all students (secondary and postsecondary adult) planning to complete any Health Occupations program. Once successfully completed, the core does not need to be repeated at any instructional level.

The content includes but is not limited to , theoretical instruction and clinical experience in medical, surgical, obstetric, pediatric, and geriatric nursing; theoretical instruction and clinical experience in acute, care, long term care and community settings; theoretical instruction and clinical application of vocational role and function; personal, family and community health concepts; nutrition; human growth and development over the life span; body structure and function; interpersonal relationship skills, mental health concepts; pharmacology and administration of medications; legal aspects of practice; and current issues in nursing.

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 72 credit hours.

Regulated Programs

This program is regulated by the Florida Board of Nursing.

Clinical instruction of nursing students will meet the requirements of Florida Statute 464.019. Clinical experience must make up or least 50% of the total program. Clinical Simulation may be used for no more than 50% of the total clinical experience.
Please refer to Florida Statute 464.019 (1) (b) for faculty credential requirements to teach this program.

The program must be approved by the Florida Board of Nursing. It is important that each associate degree nursing program effectively utilize the services of an active program advisory committee composed of individuals' representative of the community. Only when the educators and employers work together can the associate degree nursing graduate be provided the competencies that are most needed for successful employment as a new registered nurse.

The Human Patient Simulator (HPS) may be used for a limited number of clinical hours with prior approval from the Florida Board of Nursing.

Associate degree nurses (ADN) are prepared to provide nursing care to clients in a variety of settings. ADN graduates are eligible to take the National Council Licensing Examination (NCLEX-RN) which tests minimum competence to practice safe nursing care.

Standards

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

01.0 Demonstrate knowledge of the health care delivery system and health occupations.
02.0 Demonstrate the ability to communicate and use interpersonal skills effectively.
03.0 Demonstrate legal and ethical responsibilities.
04.0 Demonstrate an understanding of and apply wellness and disease concepts.
05.0 Recognize and practice safety and security procedures.
06.0 Recognize and respond to emergency situations.
07.0 Recognize and practice infection control procedures.
08.0 Demonstrate an understanding of information technology applications in healthcare.
09.0 Demonstrate employability skills.
10.0 Demonstrate knowledge of blood borne diseases, including HIV/AIDS.
11.0 Apply basic math and science skills.
12.0 Demonstrate competencies in the core components of professional nursing-professional behavior.
13.0 Demonstrate competencies in the core components of professional nursing-communication.
14.0 Demonstrate competencies in the core components of professional nursing-assessment.
15.0 Demonstrate competencies in the core components of the professional nurse-clinical decision making.
16.0 Demonstrate competencies in the core components of professional nursing-caring intervention.
17.0 Demonstrate competencies in the core components of professional nursing- teaching and learning.
18.0 Demonstrate competencies in the core components of professional nursing-collaboration.
19.0 Demonstrate competencies in the core components of professional nursing-managing care.
20.0 Demonstrate competencies in the core components of the professional nurse leadership and delegation.

Florida Department of Education
Student Performance Standards

Program Title: **Registered Nurse**
CIP Number: **1351380100**
Program Length: **72 credit hours**
SOC Code(s): **29-1141**

Standards 1-11 are referred to as the **Health Science Core** and are required standards in this program. Secondary and Postsecondary students completing the health science core will not have to repeat the core in any other health science program in which it is a part. When the recommended sequence is followed, the structure allows students to complete at specified points for employment or remain for advanced training or cross-training.

To ensure consistency whenever these courses are offered, the health science core standards (1-11) have been placed in a separate document.

Refer to Rule 6A-14.030 (4) F.A.C., for the minimum amount of general education coursework required in the Associate of Science (AS) degree. At the completion of this program, the student will be able to:
Associate Degree Nursing: Intended outcomes 12-20 complete the occupational exit of Associate Degree Nurse. Inherent within these intended outcomes is the utilization and application of the nursing process (assessment, diagnosis, planning, implementation, and evaluation) across the life span and in diverse settings within the health continuum.
12.0 Demonstrate competencies in the core components of professional nursing regarding professional behaviors. -- The student will be able to:
12.01 Practice within the ethical, legal and regulatory frameworks of nursing and standards of professional nursing practice.
12.02 Report unsafe practices of healthcare providers using appropriate channels of communication.
12.03 Demonstrate accountability for nursing care given by self and or delegated to others.
12.04 Advocate for client rights.
12.05 Maintain organizational and client confidentiality.
12.06 Practice within the parameters of individual knowledge and experience.
12.07 Describe political processes as the processes affect agency specific health care and the profession of nursing.
12.08 Understand the role of professional organizations.
12.09 Serve as a professional role model within healthcare settings and the community at large.

	12.10 Recognize the impact of political, social, and demographic forces on the delivery of health care.
	12.11 Participate in lifelong learning.
	12.12 Implement a plan to meet self-learning needs.
	12.13 Delineate and maintain appropriate professional boundaries in the nurse-client relationship.
13.0	Demonstrate competencies in the core components of professional nursing-communication. -- The student will be able to:
	13.01 Utilize therapeutic communication skills when interacting with clients and support person(s).
	13.02 Communicate relevant, accurate and complete information in a concise, clear and timely manner to the client and support person(s) as well as multidisciplinary healthcare team members.
	13.03 Document relevant, accurate and complete information regarding assessments, interventions and progress toward client outcomes.
	13.04 Utilize information technology, including the use of electronic health records, to support and communicate the planning and provision of client care.
	13.05 Utilize appropriate channels of communication to achieve positive client outcomes.
	13.06 Determine the communication needs/preferences of individual clients and support persons(s).
14.0	Demonstrate competencies in the core components of the professional nurse regarding assessment. -- The student will be able to:
	14.01 Assess the interaction patterns of the individual client or significant support person(s).
	14.02 Assess the developmental, emotional, cultural, religious and spiritual influences on the client's health status.
	14.03 Assess the client's health status by completing a health history and performing a physical, cognitive, psychosocial and functional assessment.
	14.04 Assess client and significant support person(s) for learning strengths, capabilities, barriers and educational needs.
	14.05 Assess the client's adaptation to health and behavior issues.
	14.06 Assess the client's response to interventions.
	14.07 Assess the client's knowledge and ability to access available community resources to meet health needs.
	14.08 Assess the environment for factors that may impact the client's health status.
15.0	Demonstrate competencies in the core components of the professional nurse regarding clinical decision making. -- The student will be able to:
	15.01 Make clinical judgments and management decisions to ensure accurate and safe care.
	15.02 Utilize client data to plan care.

	15.03 Evaluate the effectiveness of care provided in meeting client outcomes.
	15.04 Modify client care as indicated by the evaluation of outcomes.
	15.05 Participate in problem identification and data collection for research, quality control or improvement processes to meet client outcomes.
	15.06 Use research and evidence based data to plan client care and support clinical decision making.
16.0	Demonstrate competencies in the core components of the professional nurse regarding caring interventions. -- The student will be able to:
	16.01 Promote the client's dignity.
	16.02 Provide nursing care based on emotional, cultural, religious and spiritual influences on the client.
	16.03 Demonstrate caring behavior towards the client, support person(s), peers and other members of the healthcare team.
	16.04 Provide holistic, client centered nursing care in diverse settings.
	16.05 Implement the prescribed care regimen for management of clients with obstetric, pediatric, medical, surgical, or psychiatric problems within the legal, ethical and regulatory framework of nursing practice.
	16.06 Perform nursing interventions competently according to the current standards of professional nursing practice.
	16.07 Provide a safe physical and psychosocial environment.
	16.08 Assist the client and support person(s) to cope with and adapt to stressful events and changes in health status, including healthcare and end of life decision-making.
	16.09 Assist the client and support person(s) to achieve optimum well-being.
	16.10 Prepare the client and support person(s) for independent care management.
	16.11 Implement appropriate procedures to meet regulatory and accreditation agency patient safety guidelines.
17.0	Demonstrate competencies in the core components of the professional nurse regarding teaching and learning. -- The student will be able to:
	17.01 Develop an individualized teaching plan based on assessed needs.
	17.02 Provide the client and support person(s) with the information to make choices regarding health in a manner that enables understanding.
	17.03 Teach the client and support person(s) the information and skills needed to achieve the desired learning outcomes.
	17.04 Evaluate the progress of the client and support person(s) toward achievement of the identified learning outcomes.
	17.05 Modify the teaching plan based on evaluation of progress toward meeting the learning outcomes.

	17.06 Provide assistive personnel with relevant instruction to support achievement of client outcomes.
	17.07 Participate in client care that supports health promotion.
18.0	Demonstrate competencies in the core components of the professional nurse regarding collaboration. -- The student will be able to:
	18.01 Develop multidisciplinary solutions based on the analysis of client problems to achieve optimum client outcomes.
	18.02 Identify multidisciplinary resources to achieve optimum client outcomes.
	18.03 Collaborate with the client, support person(s), and other multidisciplinary team members to evaluate progress toward achievement of outcomes.
19.0	Demonstrate competencies in the core components of the professional nurse regarding managing care. **--** The student will be able to:
	19.01 Prioritize client(s) care utilizing the nursing process.
	19.02 Coordinate the implementation of an individualized plan of care for clients and support person(s).
	19.03 Facilitate the continuity of care within and across healthcare settings.
	19.04 Adapt client care to changing healthcare settings and management systems.
	19.05 Assist the client and support person(s) to access available resources and services.
	19.06 Demonstrate competence with current healthcare technologies and information systems.
	19.07 Manage care for clients using cost effective nursing strategies, quality improvement processes and current technology.
20.0	Demonstrate competencies in the core components of the professional nurse regarding leadership and delegation. -- The student will be able to:
	20.01 Describe the components of leadership.
	20.02 Contrast leadership and management.
	20.03 Describe the qualities of an effective leader.
	20.04 Describe skills necessary for effective leadership of an interdisciplinary team.
	20.05 Employ practices that build relationships and encourage team work.
	20.06 Delegate aspects of client care that are within the scope of practice to appropriate members of the healthcare team.
	20.07 Evaluate the activities delegated to members of the healthcare team.
	20.08 Communicate effectively with all members of the health care team.

20.09	Use a coaching/collaborative approach in leading a team.
20.10	Coordinate the decision making process with the client, support person(s), and other members of the health care team.
20.11	Implement nursing strategies that support efficient and cost effective care.
20.12	Describe how a leader utilizes research for evidence-based practice effecting positive client outcomes.
20.13	Describe how effective leadership influences unit culture, client outcomes and the achievement of organization goals.
20.14	Describe the leader's role related to quality measures, performance improvement and the accreditation and regulatory requirements.
20.15	Employ effective conflict resolution strategies that promote a healthy work environment.

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 PSAV programs have been approved by the Florida State Board of Education for statewide articulation credit into this degree program.

Practical Nursing – CIP# 0351390101 – 10 credits

The following industry certifications have been approved by the Florida State Board of Education for statewide articulation credit into this degree program.

Licensed Practical Nurse (FDMQA017) – 10 credits

This program meets the Department of Health's education requirements for HIV/AIDS, Domestic Violence and Prevention of Medical Errors. Although not a requirement for initial licensure, it is a requirement for renewal, therefore the instructor may provide a certificate for renewal purposes to the student verifying these requirements have been met.

If students in this program are seeking a licensure, certificate or registration through the Department of Health, please refer to 456.0635 F.S. for more information on disqualification for a license, certificate, or registration through the Department of Health.

Outcomes 01-11 are referred to as the Health Careers Core and do not have to be completed if the student has previously completed the Core in another health science program. The CORE should be taken first or concurrently with the first course in the program. Following the successful completion of the core, the student is eligible to take the National Health Care Foundation Skill Standards Assessment with instructor approval and the completion of a portfolio.

Reinforcement of basic skills in English, mathematics, and sciences appropriate for the job preparatory programs occurs through didactic instruction and applied laboratory procedures or practice.

The location of the ADN program within the community college setting provides an appropriate academic environment for instruction in the biological, physical, social, and behavioral sciences. The community college setting further provides instruction in the communication skills basic to the successful performance of the ADN graduate in the work setting. This body of knowledge supports concepts specific to the practice of nursing.

This program focuses on broad, transferable skills and stresses understanding and demonstration of the following elements of the health care industry; planning, management, and community issues and health, safety, and environmental issues.

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 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.

Florida Department of Education
Curriculum Framework

Program Title: **Anesthesia Technology**
Career Cluster: **Health Sciences**

AS	
CIP Number	1351999901
Program Type	College Credit
Standard Length	71 credit hours
CTSO	HOSA: Future Health Professionals
SOC Codes (all applicable)	29-2099 Health Technologists and Technicians, All Other

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 Health Science 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 Health Sciences career cluster.

The content includes but is not limited to introduction to anesthesia technology, medical ethics and law, medical terminology, methods of patient care, human structure and function, chemistry, principles of anesthesiology, complex anesthesia equipment, categories of anesthesia and adjunct medication, function of advance equipment used in cardiac, neurological and trauma surgical procedures, provide technical support during perioperative procedures, the ability to maintain anesthesia equipment and supplies, assist the anesthesia professional as requested, introduction to quality assurance, introduction to computer literacy, and clinical education. The curriculum includes a plan for well-structured competency based clinical education.

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 71 credit hours.

Standards

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

01.0 Demonstrate knowledge of the health care delivery system and health occupations.
02.0 Demonstrate the ability to communicate and use interpersonal skills effectively.
03.0 Demonstrate legal and ethical responsibilities.
04.0 Demonstrate an understanding of and apply wellness and disease concepts.
05.0 Recognize and practice safety and security procedures.
06.0 Recognize and respond to emergency situations.
07.0 Recognize and practice infection control procedures.
08.0 Demonstrate an understanding of information technology applications in healthcare.
09.0 Demonstrate employability skills.
10.0 Demonstrate knowledge of blood borne diseases, including HIV/AIDS.
11.0 Apply basic math and science skills.

In addition, students will complete the objectives for Anesthesia Technician/Technologist

12.0 Describe the role and responsibilities of an Anesthesia Technician/ Technologists.
13.0 Discuss the basic principles for Anesthesia Technology.
14.0 Understand the functions of the advanced anesthesia equipment appropriate for surgical procedures and differentiate between the various types of more complex anesthesia equipment and instrumentation.
15.0 Understand the various categories of anesthesia and adjunct medications, including proper use and storage.
16.0 Discuss the preparation of complex equipment used in pediatric, obstetrical, and outpatient anesthesia and discuss the role of anesthesia technologist in the care of pediatric, obstetrical, and ambulatory surgical patient.
17.0 Demonstrate knowledge in the function and use of advanced equipment used in cardiac, neurological, and trauma surgical procedures.
18.0 Demonstrate the ability to maintain and organizes the anesthesia environment, equipment, supplies, and personnel to facilitate department functions.
19.0 Provide perioperative technical support to the anesthesia professional staff for delivery of patient care.
20.0 Assist the anesthesia professional staff as requested.
21.0 Participate in system to support and continually improve the quality of anesthesia services provided to patients and their families, fellow employees, physicians and other customers.
22.0 Promotes and maintains positive relationships with all contact.

Florida Department of Education
Student Performance Standards

Program Title: **Anesthesia Technology**
CIP Number: **1351999901**
Program Length: **71 Credit Hours**
SOC Code(s): **29-107101/Anesthesiologist Assistants**

Standards 1-11 are referred to as the **Health Science Core** and are required standards in this program. Secondary and Postsecondary students completing the health science core will not have to repeat the core in any other health science program in which it is a part. When the recommended sequence is followed, the structure allows students to complete at specified points for employment or remain for advanced training or cross-training.

To ensure consistency whenever these courses are offered, the health science core standards (1-11) have been placed in a separate document.

Refer to Rule 6A-14.030 (4) F.A.C., for the minimum amount of general education coursework required in the Associate of Science (AS) degree. At the completion of this program, the student will be able to:	
12.0	Describe the role and responsibilities of an Anesthesia Technician/Technologist. – The student will be able to:
12.01	Apply concepts and principle of the function and job performance of the anesthesia technologists.
12.02	Compare professional anesthesiology roles including the scope of practice and function of each anesthesia care provider.
12.03	Apply Anesthesiology process and critical thinking to the care of the surgical patient at the foundational level.
12.04	Develop individualized anesthesia care plan at the foundation level.
12.05	Discuss safe, effective support of the anesthesia provider, in the care of the surgical patient.
12.06	Discuss the three levels of practice for an anesthesia technician/technologist and qualifications and scope of practice for each.
12.07	Explain the role of the American Society of Anesthesia Technicians and Technologist (ASSATT) and it function.
13.0	Demonstrate the basic principles for anesthesia technology. – The student will be able to:
13.01	Explain the techniques used for basic anesthesia set-up, and daily anesthesia machine check.
13.02	Demonstrate the appropriate skills for preparation and set up of anesthesia equipment for surgical cases.
13.03	Discuss how to prepare anesthesia equipment for proper disposal, cleaning, and sterilization requirements.

13.04	Apply aseptic techniques in preparing equipment and supplies.
13.05	Describe the process stocking, ordering and maintaining routine anesthesia equipment and supplies.
13.06	Discuss non-invasive and invasive monitoring modalities used in patient care.
13.07	Discuss the basic concepts of ventilation.
13.08	Discuss what regulatory body is responsible for regulating medical gas cylinders and containers in the US.
13.09	Explain what filling density means.
13.10	Discuss the delivery methods of anesthetic agents.
13.11	Evaluate the techniques and procedures used for regional anesthesia.
13.12	Explain the role of the anesthesia assistant in positioning of patients.
14.0	Understand the functions of the advanced anesthesia equipment appropriate for surgical procedures and differentiate between the various types of more complex anesthesia equipment and instrumentation. - The student will be able to:
14.01	Demonstrate the ability to prepare equipment for a variety of surgical cases and procedures in anesthesia.
14.02	Describe the various patient anatomical positions for surgical cases.
14.03	Applies critical thinking skills in assisting the anesthesia provider with patients of all types, ages and physical condition for a variety of surgical and medically related procedures.
14.04	Discuss the various types of anesthesia.
14.05	Discuss the American Society of Anesthesiologists (ASA) guidelines determining anesthesia machine obsolescence.
14.06	Explain regulatory compliance requirements for adherence to policies regarding anesthesia equipment.
14.07	Differentiate between the various types of more complex anesthesia equipment and instrumentation.
14.08	Explain hemodynamic monitoring equipment, function, application, and troubleshooting.
14.09	Discuss medication delivery system.
14.10	Describe patient warming and cooling devices.
14.11	Discuss how to properly set up the malignant hyperthermia cart.
14.12	Describe how to prepare a preparation of the peripheral nerve block equipment cart.
14.13	Identify what problems may occur with portable laboratory equipment and emergency equipment.

	14.14	Differentiate between the various types of airway equipment used on the difficult airway cart.
	14.15	Manage resources for the acquisition, preparation and application of warming, airway and ventilatory equipment.
	14.16	Identify and take appropriate action when confronted with anesthetic equipment-related malfunctions and maintains service records.
15.0	Understand the various categories of anesthesia and adjunct medications, including proper use and storage. - The student will be able to:	
	15.01	Describe safe and effective methods to order, categorize, and store medications in the anesthesia environment.
	15.02	Discuss the use of effective communication skills when interacting with anesthesia providers in assisting with administration of medications.
	15.03	Differentiate between the various types of intravenous medications.
	15.04	Demonstrate competencies in IV insertion and volume resuscitation.
	15.05	Compare the side effects of various inhalational agents.
	15.06	Differentiate between the various types of intravenous fluids and blood products.
	15.07	Explain the need for proper labeling of anesthetic medications.
16.0	Discuss the preparation of complex equipment used in pediatric, obstetrical, and outpatient anesthesia and the role of anesthesia technologist in the care of pediatric, obstetrical, and ambulatory surgical patient. - The student will be able to:	
	16.01	Differentiate between the various equipment used in the anesthesia care of the obstetrical, pediatric, and ambulatory surgical patient.
	16.02	Discuss the physiologic changes during pregnancy that affects the delivery of anesthesia care.
	16.03	Explain placental transfer and fetal exposure to anesthetic drugs.
	16.04	Differentiate between systemic medication, regional, epidural, spinal, and lumbar epidural anesthesia.
	16.05	Explain how to manage high risk deliveries of the following patients: preeclampsia, cesarean section, HIV patients, cocaine abuse.
	16.06	Summarize obstetrical emergency including seizures, hemorrhage, embolism and cardiac arrest.
	16.07	Discuss specific pediatric surgeries including neurosurgery, cardiac, otolaryngology, ophthalmology, and dental.
	16.08	Explain the equipment considerations for patient from birth through adolescence.
	16.09	Effectively explain the need to maintain temperature balance in children during surgical procedures.
	16.10	Discuss the perioperative evaluation and preparation of a child for surgery.
17.0	Demonstrate knowledge in the function and use of advanced equipment used in cardiac, neurological, and trauma surgical procedures. – The student will be able to:	

	17.01	Develop a comprehensive anesthesia plan of care with the anesthesia provider for the complex surgical patient.
	17.02	Demonstrate effective communication skills when interacting with the anesthesia care provider in preparation of cardiac, neurological, and trauma patients.
	17.03	Demonstrate the assessment of support needed for anesthesia services for all patients and types of anesthesia, including trauma and emergency cases.
	17.04	Demonstrate the completion of comprehensive and appropriate equipment check.
	17.05	Demonstrate the knowledge and skills required to compile and calibrate equipment.
	17.06	Demonstrate an understanding of data obtained from noninvasive and invasive monitoring modalities.
	17.07	Differentiate between the various types of more complex anesthesia equipment and instrumentation.
	17.08	Compare the various modalities used in peripheral nerve blocks.
	17.09	Explain the relationship of fluid management and the equipment required.
18.0	Demonstrate the ability to maintain and organizes the anesthesia environment, equipment, supplies, and personnel to facilitate department functions. - The student will be able to:	
	18.01	Organize the inventory of the sterile supplies within their expiration date.
	18.02	Demonstrate the knowledge and skills required to complete inventories, orders and maintain departmental supply stock.
	18.03	Establish and maintain a complete record of all preventative maintenance past and present.
	18.04	Complete and maintain material safety data sheets (MSDS) sheets on hazardous materials and latex allergy items for all supplies under anesthesia cognizance.
	18.05	Organize an inventory of equipment used by the anesthesia department in order to track repairs; loaners and demos.
	18.06	Conduct any quality controls needed to return such items after repair to service.
	18.07	Organize pharmacy drugs within their expiration date and properly dispose of used or expired drugs.
	18.08	Review and follow the checklist for anesthesia equipment FDA Anesthesia Apparatus Checkout Recommendation (AACR) established by the Committee on Equipment and Facilities and the ASA.
	18.09	Demonstrate an understanding of the complexity of anesthesia machines and breathing systems.
	18.10	Discuss equipment related to environmental situations such as temperature control, MRI, operating room fires, and injuries related to sources of ignition.
	18.11	Performs quality control checks on laboratory equipment used in the operating room in accordance with the College of American Pathologists (CAP) guidelines.
	18.12	Complete all quality controls for Point of Care testing devices.

	18.13 Perform cyclic CAP surveys for all machines under the anesthesia department.
	18.14 Manage supporting documentation and quality control documentation.
	18.15 Maintain a list of those who have met the competencies for laboratory testing per the College of American Pathologists.
19.0	Provide perioperative technical support to the anesthesia professional staff for delivery of patient care. – The student will be able to:
	19.01 Adhere to Joint Commission accreditation policies and procedures, sentinel events, national safety goals, environment of care and other Joint Commission mandates directly related to anesthesia and patient safety.
	19.02 Comply with CAP requirements for ancillary laboratories.
	19.03 Prepare and assemble transducer lines and equipment necessary for invasive pressure monitoring.
	19.04 Demonstrate knowledge of hemodynamics and can perform cardiac calculations.
	19.05 Demonstrate detailed technical knowledge and troubleshooting ability for anesthesia delivery system, scavenger system, gas analyzer, EKG, pulse oximeter and rapid infusion devices.
	19.06 Complete hospital annual competency checklist which may include auto transfusion; stat lab; ACT; Waste Gas Survey; laser safety; Bronchoscope cleaning, and sterilization and transfusion administration.
	19.07 Organize equipment to be assembled and assist with operation of specialized equipment such as humidification units; fiber optic endoscopic equipment; rapid infusion devices/blood warmers; patient warming devices; neuromuscular devices; infusion pumps and syringes; balloon pump initial setups and TEE setup.
	19.08 Demonstrate speed and timeliness in all duties, particularly in preparation for emergencies and trauma procedures.
20.0	Assist the anesthesia professional staff as requested. – The student will be able to:
	20.01 Assist in preparation and draping of patient for invasive monitoring/procedures by licensed anesthesia providers.
	20.02 Assist and anticipate needs of licensed anesthesia providers in invasive monitor insertion and procedures such as pulmonary artery catheter, central venous access, regional anesthesia, fiber optic intubation.
	20.03 Demonstrate knowledge of the ASA Difficult Airway Algorithm, its purpose and the various scenarios in which it would be useful.
	20.04 Prepare patients for major invasive monitoring and/ or complex cases including but not limited to placement of BP cuff, ECG leads, Pulse Oximetry, positioning and prepping.
	20.05 Assist in arranging equipment in anticipation of complications such as IV infiltration and malignant hyperthermia detection and treatment.
	20.06 Demonstrate competency monitoring the EKG for dysrhythmias as well as other potential complications.
	20.07 Prepare laryngoscopes and intubation equipment, IV solution and tubing set-up and set up of IV warming devices.
	20.08 Assist licensed anesthesia providers with volume infusions as directed during intraoperative volume resuscitations.
21.0	Participate in a system to support and continually improve the quality of anesthesia services provided to patients and their families, fellow

	employees, physicians and other customers. – The student will be able to:
	21.01 Participate in departmental meetings for quality improvement and risk management.
	21.02 Assist in the development of action plans in response to professional staff feedback regarding improvement opportunities.
	21.03 Obtain BCLS, ACLS, and PALS certifications.
	21.04 Demonstrate an understanding of the importance of departmental policies and procedures directly related to the anesthesia staff and performance duties.
22.0	Promote and maintain positive relationships with in the anesthesia department and the facility. – The student will be able to:
	22.01 Demonstrate the ability to communicate on a professional level, verbally, non-verbally and electronically, regarding the delivery of perianesthetic care.
	22.02 Demonstrate the ability to resolve conflicts as appropriate.
	22.03 Discuss the importance of being an advocate for comprehensive health care policy decisions and the participation of activities, which enhance the role of the anesthesia technologist to improve patient care.
	22.04 Describe the importance of adapting to the every changing needs of diverse multi-cultural and complex client populations in the delivery of culturally competent care.
	22.05 Demonstrate knowledge of regulatory acts as they affect patients and staff.

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

This program focuses on broad, transferable skills and stresses understanding and demonstration of the following elements of the health care industry; planning, management, finance, technical and production skills, underlying principles of technology, labor issues, community issues and health, safety, and environmental issues.

This program meets the Department of Health's education requirements for HIV/AIDS, Domestic Violence and Prevention of Medical Errors. Although not a requirement for initial licensure, it is a requirement for renewal, therefore the instructor may provide a certificate for renewal purposes to the student verifying these requirements have been met.

If students in this program are seeking a licensure, certificate or registration through the Department of Health, please refer to 456.0635 F.S. for more information on disqualification for a license, certificate, or registration through the Department of Health.

The program should meet the requirements of the Commission on Accreditation of Allied Health Education Programs (CAAHEP) and Committee on Accreditation for anesthesia Technologist Education (CoA-ATE).

After successful completion of a Commission on Accreditation of Allied Health Education Programs (CAAHEP) or Accrediting Bureau of Health Education Schools (ABHES) accredited program, students are eligible to take the American Society of Anesthesia Technologist and Technicians (ASATT) qualification exam for anesthesia technicians.

For further information please contact:

American Society of Anesthesia Technologist and Technicians (ASATT)
7044S 13th Street
Oak Creek, WI 53154

Career and Technical Student Organization (CTSO)

HOSA: Future Health Professionals is the appropriate 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 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.

Florida Department of Education
Curriculum Framework

Program Title: **Massage Therapy**
Program Type: **Career Preparatory**
Career Cluster: **Health Science**

Career Certificate Program	
Program Number	H120406
CIP Number	0351350102
Grade Level	30, 31
Standard Length	750 hours
Teacher Certification	Refer to the **Program Structure** section.
CTSO	HOSA: Future Health Professionals
SOC Codes (all applicable)	31-9011 Massage Therapists 31-9099 Healthcare Support Workers, All Other
Basic Skills Level	Mathematics: 9 Language: 10 Reading: 10

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 Health Science 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 Health Science career cluster.

The program is designed to prepare students for employment as Florida licensed massage therapists, all other service workers. SOC Code 31-9011-(Massage Therapists).

The content includes but is not limited to the theory and practice of massage, theory and practice of hydrotherapy, hygiene, practice demonstration, human anatomy and physiology, legal aspects of massage practice, allied modalities, leadership and human relations skills, health and safety, CPR, and employability skills. Colonic irrigation is optional post initial licensure.

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 2 occupational completion points.

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	MSS0204	Massage Therapy 1	MASSAGE TH 7 G	375 hours	31-9099
B	MSS0209	Massage Therapy 2		375 hours	31-9011

Regulated Programs

The program must be approved by the Florida Department of Health, Board of Massage Therapy so that the graduates may take the board approved examination to practice as massage therapists.

This program meets the Department of Health's education requirements for HIV/AIDS, Domestic Violence and Prevention of Medical Errors. Although not a requirement for initial licensure, it is a requirement for renewal, therefore the instructor may provide a certificate for renewal purposes to the student verifying these requirements have been met.

After completion of this program students will be eligible to make an application to take the licensure examination approved by the Board of Massage Therapy.

Contact: Department of Health
Board of Massage Therapy
4052 Bald Cypress Way
Bin # CO6
Tallahassee, FL 32399 850/488-0595

If students in this program are seeking a licensure, certificate or registration through the Department of Health, please refer to 456.0635 F.S. for more information on disqualification for a license, certificate, or registration through the Department of Health.

Colonic irrigation instruction is optional post initial licensure. If such instruction is provided, it must meet minimum standards as provided per the Board of Massage Therapy rule 64B7-32.005.

Course of Study Classroom Hours as stated in F.A.C. 64B7-32.003 -

Anatomy and Physiology	150
Basic Massage Theory and History	100
Clinical Practicum	125
Allied Modalities	76
Business	15
Theory and Practice of Hydrotherapy	15
Florida Laws and Rules (Chapters 456 and 480, F.S. and Chapter 64B7, F.A.C.)	10
Professional Ethics	4
HIV/AIDS Education	3
Medical Errors	2

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 the ability to communicate effectively as a medical therapy professional.
02.0 Demonstrate an understanding of human anatomy and physiology, kinesiology and pathology as related to the practice of massage therapy.
03.0 Exhibit an understanding of the principles of the theories of therapeutic massage and demonstrate the proper techniques of massage manipulations.
04.0 Demonstrate the recommended safety, hygiene and health practices for the massage therapist.
05.0 Exhibit an understanding of the principles of the theory of hydrotherapy and use hydrotherapy modalities.
06.0 Explain and appropriately apply allied modalities related to massage therapy.
07.0 Demonstrate knowledge of ethical practice standards and the statutes and rules of Florida Massage Practice Act and the rules of the FL Board of Massage Therapy (Chapter 480, F.S.; Chapter 64B7; Chapter 456).
08.0 Demonstrate knowledge of basic business practices and standards.

Florida Department of Education
Student Performance Standards

Program Title: Massage Therapy
Career Certificate Program Number: H120406

Course Number: MSS0204 **Occupational Completion Point: A** **Massage Therapy 1 – 375 Hours – SOC Code 31-9099**	
01.0	Demonstrate the ability to communicate effectively as a medical therapy professional. -– The student will be able to:
01.01	Demonstrate knowledge of professional communication, active listening skills, and ability to interview the client/patient to ascertain his/her indications and/or contraindications for therapy.
01.02	Demonstrate knowledge and use of appropriate medical terminology and ability to perform proper S.O.A.P (Subjective, objective, assessment and plan) notation in the field of massage therapy.
01.03	Demonstrate knowledge of the “Patients’ Bill of Rights and informed consent.
01.04	Identify and demonstrate Health Insurance Portability and Accountability Act (HIPAA) standards within the massage therapy treatment and business setting.
02.0	Demonstrate an understanding of human anatomy and physiology, kinesiology and pathology as related to the practice of massage therapy. – The student will be able to:
02.01	Explain the structure and function of all the body systems, organs, tissues and cells with emphasis on origins, insertions and actions of muscles.
02.02	Explain the concept of homeostasis and how it relates to massage therapy and its modalities.
02.03	Explain the effects of massage on the human body.
02.04	Demonstrate a basic knowledge of kinesiology.
02.05	Demonstrate a basic knowledge of various body systems’ pathology.
03.0	Exhibit an understanding of the principles of the theories of therapeutic massage and demonstrate the proper techniques of massage manipulations. – The student will be able to:
03.01	Demonstrate knowledge of the history of massage therapy and historical practitioners.
03.02	Explain the mechanical, reflexive and physiologic chemical effects of Swedish massage.
03.03	Demonstrate knowledge of the effects, usage, indications and contraindications of various lubricants in massage therapy and apply appropriately.
03.04	Demonstrate awareness of professional boundaries using acknowledgement of body language, verbal communication, and cultural cues.

	03.05	Practice proper body mechanics.
	03.06	Accurately perform all Swedish massage strokes and manipulations.
	03.07	Demonstrate Proper client/patient positioning, support and draping techniques.
	03.08	Demonstrate an understanding of initial treatment plan assessment, & re-assessment and treatment indications and contraindications of massage therapy.
	03.09	Apply various massage therapy techniques properly when presented with various pathological conditions and contraindications.
	03.10	Effectively operate common massage therapy equipment.
04.0	Demonstrate the recommended safety, hygiene and health practices for the massage therapist. -- The student will be able to:	
	04.01	Explain the ways a massage establishment should be planned and maintained to promote health and safety including fire, disaster and evacuation procedures.
	04.02	Outline practices conducive to personal health, hygiene and appearance.
	04.03	Demonstrate knowledge of measures conducive to eliminating medical errors
	04.04	Demonstrate an understanding of diseases caused by blood borne pathogens including HIV/AIDS and their legal aspects (i.e. testing).

Course Number: MSS0209 **Occupational Completion Point: B** **Massage Therapy 2 – 375 Hours – SOC Code 31-9011**		
05.0	Exhibit an understanding of the principles of the theory of hydrotherapy and use hydrotherapy modalities. -- The student will be able to:	
	05.01	Explain the effects of hydrotherapy on the human body.
	05.02	Interview the clients/patients to ascertain their indications and/or contraindications for hydrotherapy.
	05.03	Appropriately perform hydrotherapy services such as thermal therapy and cryotherapy.
	05.04	Demonstrate knowledge of accepted temperature and time standards for hydrotherapy techniques.
	05.05	Educate clients/ patients in the use of various hydrotherapy self-care techniques.
06.0	Explain and appropriately apply allied modalities related to massage therapy. – The student will be able to:	
	06.01	Identify various modalities utilized within the scope of practice of massage therapy.
	06.02	Identify allied modalities outside the scope of massage therapy for the purposes of referral.

	06.03	Explain the effects on the human body while utilizing various massage allied modalities.
	06.04	Educate clients/patients in the use of various self-care techniques and applications including stretching and joint movement.
07.0	Demonstrate knowledge of ethical practice standards and the statutes and rules of Florida Massage Practice Act and the rules of the Florida Board of Massage Therapy (Chapter 480, F.S.; Chapter 64b7; Chapter 456). – The student will be able to:	
	07.01	State the purpose of the Massage Practice Act. (Chapter 480, F.S.)
	07.02	State the qualifications necessary for licensure and renewal of license.
	07.03	State the function of the Board of Massage Therapy and the Department of Health.
	07.04	State the conditions necessary for acceptance for examination for licensure.
	07.05	State the requirements for massage therapy establishments and their inspection.
	07.06	Understand the grounds for which disciplinary actions may be taken by the Board of Massage Therapy.
	07.07	Define the terms: Board, Department, Massage Therapist, Apprentice, Inactive Licensure, Massage Establishment, Certification and Licensure.
	07.08	Describe the various types of healthcare providers and the range of services available including resources to victims of domestic violence.
	07.09	Demonstrate knowledge of ethical conduct in the massage therapy practice and the responsibility to report ethical violations.
	07.10	Discuss the massage therapists' responsibility to report abuse including domestic violence and neglect per the vulnerable persons act.
08.0	Demonstrate knowledge of basic business practices and standards. -- The student will be able to:	
	08.01	Define basic business practices and standards, including basic components of public private government and nonprofit healthcare delivery systems.
	08.02	Identify the function, roles and responsibilities of the massage therapist as part of the health care team.
	08.03	List the advantages and disadvantages of business ownership.
	08.04	Identify the necessary personal characteristics of a successful entrepreneur and a successful employee.
	08.05	Demonstrate the ability to create a resume and find employment opportunities with the use of current technology.

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

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.

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)

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.

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.

Basic Skills

In a Career Certificate Program offered for 450 hours or more, in accordance with Rule 6A-10.040, F.A.C., the minimum basic skills grade levels required for postsecondary adult career and technical students to complete this program are: Mathematics 9, Language 10, and Reading 10. These grade level numbers correspond to a grade equivalent score obtained on a state designated basic skills examination.

Adult students with disabilities, as defined in Section 1004.02(7), Florida Statutes, may be exempted from meeting the Basic Skills requirements (Rule 6A-10.040). Students served in exceptional student education (except gifted) as defined in s. 1003.01(3) (a), F.S., may also be exempted from meeting the Basic Skills requirement. Each school district and Florida College must adopt a policy addressing procedures for exempting eligible students with disabilities from the Basic Skills requirement as permitted in Section 1004.91(3), F.S.

Students who possess a college degree at the Associate of Applied Science level or higher; who have completed or are exempt from the college entry-level examination; or who have passed a state, national, or industry licensure exam are exempt from meeting the Basic Skills requirement (Rule 6A-10.040, F.A.C.) Exemptions from state, national or industry licensure are limited to the certifications listed on the Basic Skills and Licensure Exemption List which may be accessed from the CTE Program Resources page.

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 programs cannot be modified.

Florida Department of Education
Curriculum Framework

Program Title: **Dental Assisting**
Program Type: **Career Preparatory**
Career Cluster: **Health Science**

Career Certificate Program	
Program Number	H170106
CIP Number	0351060112
Grade Level	30, 31
Standard Length	1230 hours
Teacher Certification	Refer to the **Program Structure** section.
CTSO	HOSA: Future Health Professionals
SOC Codes (all applicable)	31-9099 Healthcare Support Workers, All Other 31-9091 Dental Assistants
Basic Skills Level	Mathematics: 10 Language: 10 Reading: 10

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 Health Science 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 Health Science career cluster.

The program is designed to prepare students for employment as dental assistants (SOC code 31-9091) and to take the Dental Assisting National Board Examination. The program should meet the requirements of the Commission on Dental Accreditation of the American Dental Association and standards recommended by the Florida Board of Dentistry.

The content includes, but is not limited to, dental office and patient management, basic dental laboratory procedures, dental and general anatomy, dental terminology, nutrition, dental instrument and equipment utilization, microbiology, dental pharmacology and anesthesia, chairside assisting and expanded functions, dental office emergencies/CPR, dental radiography, maintenance and asepsis of dental operatory and instrumentation,

dental specialty procedures, employability skills, leadership and human relations skills, ethics and jurisprudence, dental materials and preventive dentistry.

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 3 occupational completion points.

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	DEA0725	Introduction to Dental Assisting	DENTL ASST @7 7G	90 hours	31-9099
B	DEA0726	Dental Infection Control Assistant		210 hours	31-9099
C	DEA0727	Dental Assisting 1		465 hours	31-9091
	DEA0728	Dental Assisting 2		465 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 knowledge of the dental health care delivery system and dental health occupations.
02.0 Use oral and written communication skills in creating, expressing and interpreting information and ideas.
03.0 Describe the legal and ethical responsibilities of the dental health care worker.
04.0 Demonstrate an understanding of general anatomy and physiology and apply wellness and disease concepts.
05.0 Demonstrate the importance of health, safety, and environmental management systems in dental organizations and their importance to organizational performance and regulatory compliance.
06.0 Recognize and respond to emergency situations.
07.0 Use information technology tools.
08.0 Explain the importance of employability skills.
09.0 Demonstrate knowledge of blood borne diseases, including HIV/AIDS.
10.0 Demonstrate leadership and teamwork skills needed to accomplish team goals and objectives.
11.0 Use dental terminology.
12.0 Identify structures and explain functions and pathologies of dental and general head and neck anatomy.
13.0 Identify principles of microbiology and disease prevention and perform infection control procedures.
14.0 Identify, describe, maintain and utilize dental instruments and equipment.
15.0 Record patient assessment and treatment data.
16.0 Identify the functions of pharmacology and anesthesia as they relate to dentistry.
17.0 Identify and perform dental and carpal radiographic procedures.
18.0 Identify properties and uses, and manipulate dental materials.
19.0 Perform chairside assisting for general dentistry and specialty procedures.
20.0 Describe principles and perform techniques of preventive dentistry.
21.0 Perform general dental business office procedures.
22.0 Demonstrate professionalism as a dental team member in the clinical setting.

Florida Department of Education
Student Performance Standards

Program Title: Dental Assisting
Career Certificate Program Number: H170106

Course Number: DEA0725 **Occupational Completion Point: A** **Introduction to Dental Assisting – 90 Hours – SOC Code 31-9099**	
01.0	Demonstrate knowledge of the dental health care delivery system and dental health occupations. – The student will be able to:
01.01	Identify the basic components of the dental health care delivery system including public, private, government and non-profit.
01.02	Describe the various types of dental health care providers and the range of services available.
01.03	Describe the composition and functions of a dental health care team.
01.04	Identify the general roles and responsibilities of the individual members of the dental health care team.
01.05	Identify the roles and responsibilities of the consumer within the dental healthcare system.
01.06	Explain the cause and effects of factors that influence the current delivery system of dental healthcare.
01.07	Explain the impact of emerging issues including technology, epidemiology, bioethics and socioeconomics on the dental healthcare delivery system.
01.08	Discuss the history of dentistry.
02.0	Use oral and written communication skills in creating, expressing and interpreting information and ideas. – The student will be able to:
02.01	Apply basic speaking and active listening skills including reflection, restatement, and clarification techniques.
02.02	Develop basic observational skills and related documentation strategies in written and oral form.
02.03	Identify characteristics of successful and unsuccessful communication including communication styles and barriers.
02.04	Compose written communication using correct spelling, grammar, formatting and confidentiality and specific formats of letter writing.
02.05	Recognize components of medical and dental terminology and abbreviations.
02.06	Recognize the importance of courtesy and respect for patients and other health care workers and maintain good interpersonal relationships.
02.07	Recognize the importance of patient education regarding dental and health care.

02.08	Adapt communication skills to varied levels of understanding and cultural orientation including diverse age, cultural, economic, ethnic, and religious groups.
02.09	Identify psychological considerations influencing communication and behaviors.
03.0	Describe the legal and ethical responsibilities of the dental health care worker. – The student will be able to:
03.01	Identify areas of Florida Statute 466 and Rule 64B5-16 FAC and Rule 64B5-25 FAC applicable to practice by the dental health workers.
03.02	Explain practices that could result in malpractice, liability, negligence, abandonment, false imprisonment, and fraud.
03.03	Demonstrate procedures for accurate documentation and record keeping.
03.04	Interpret healthcare facility policy and procedures.
03.05	Explain the patients' "Bill of Rights".
03.06	Identify and implement standards of the Health Insurance Portability and Accountability Act (HIPAA).
03.07	Distinguish between express, implied and informed consent.
03.08	Explain the laws governing harassment, labor and employment.
03.09	Differentiate between legal and ethical issues in dentistry.
03.10	Describe a Code of Ethics consistent with the dental assisting profession.
03.11	Identify and compare personal, professional and organizational ethics.
03.12	Recognize the limits of authority and responsibility of dental health care workers including legislated scope of practice.
03.13	Recognize and report illegal and/or unethical practices of dental health care workers.
03.14	Recognize and report abuse including domestic violence and neglect.
03.15	Identify resources to victims of domestic violence.
03.16	Explain risk management.
04.0	Demonstrate an understanding of general anatomy and physiology and apply wellness and disease concepts. – The student will be able to:
04.01	Develop a basic understanding of the structure and function of the body systems.
04.02	Identify common disorders related to each of the body systems.
04.03	Explain basic concepts of positive self-image, wellness and stress.

	04.04 Develop a wellness and stress control plan that can be used in personal and professional life.
05.0	Demonstrate the importance of health, safety, and environmental management systems in dental organizations and their importance to organizational performance and regulatory compliance. – The student will be able to:
	05.01 Describe personal and jobsite safety rules and regulations that maintain safe and healthy work environments.
	05.02 Identify and describe methods in medical error reduction and prevention in the dental healthcare setting.
	05.03 Demonstrate an understanding of personal safety procedures based on Occupations Safety and Health Administration (OSHA) and Centers for Disease Control (CDC) regulations (including standard precautions).
	05.04 Recognize Safety Data Sheets (SDS) and comply with safety signs, symbols and labels.
	05.05 Demonstrate procedures for the safe transport and transfer of patients.
	05.06 Describe fire safety, disaster and evacuation procedures.
	05.07 Explain emergency procedures to follow in response to workplace accidents.
	05.08 Demonstrate handwashing and the use of personal protective equipment used in dentistry.
06.0	Recognize and respond to emergency situations. – The student will be able to:
	06.01 Take and record vital signs.
	06.02 Describe legal parameters relating to the administration of emergency care.
	06.03 Obtain and maintain training or certification in cardiopulmonary resuscitation (CPR), automated external defibrillator (AED), foreign body airway obstruction (FBAO) and first aid.
07.0	Use information technology tools. – The student will be able to:
	07.01 Define terms and demonstrate basic computer skills.
	07.02 Interpret information from electronic medical documents.
08.0	Explain the importance of employability skills. – The student will be able to:
	08.01 Identify personal traits or attitudes desirable in a member of the healthcare team.
	08.02 Exemplify basic professional standards of dental healthcare workers as they apply to hygiene, dress, language, confidentiality and behavior (i.e. telephone etiquette, courtesy and self-introductions).
	08.03 Maintain a career portfolio to document knowledge, skills, and experience.
	08.04 Write an appropriate resume.
	08.05 Conduct a job search and complete a job application form correctly.

	08.06	Demonstrate competence in job interview techniques.
	08.07	Examine levels of education, credentialing requirements including licensure and certification, employment opportunities, workplace environments and career growth potential.
	08.08	Examine licensing, certification, and industry credentialing requirements.
09.0	Demonstrate knowledge of blood borne diseases, including HIV/AIDS. – The student will be able to:	
	09.01	Recognize emerging diseases and disorders.
	09.02	Distinguish between fact and fallacy about the transmission and treatment of diseases caused by blood borne pathogens including Hepatitis B.
	09.03	Identify "at risk" behaviors that promote the spread of diseases caused by blood borne pathogens and the public education necessary to combat the spread of these diseases.
	09.04	Identify community resources and services available to the individuals with diseases caused by blood borne pathogens.
	09.05	Apply infection control techniques designed to prevent the spread of diseases caused by blood borne pathogens to the care of all patients following Centers for Disease Control (CDC) guidelines.
	09.06	Demonstrate knowledge of the legal aspects of AIDS, including testing.
10.0	Demonstrate leadership and teamwork skills needed to accomplish team goals and objectives. – The students will be able to:	
	10.01	Analyze attributes and attitudes of an effective leader.
	10.02	Recognize factors and situations that may lead to conflict.
	10.03	Demonstrate effective techniques for managing team conflict.

Course Number: DEA0726 Occupational Completion Point: B Dental Infection Control Assistant – 210 Hours – SOC Code 31-9099		
11.0	Use dental terminology. -- The student will be able to:	
	11.01	Identify and define common dental terms.
	11.02	Demonstrate the use of proper dental terminology in the dental environment.
12.0	Identify structures and explain functions and pathologies of dental and general head and neck anatomy. -- The student will be able to:	
	12.01	Identify structures and functions of head and neck anatomy including bones, muscles, sinuses, salivary glands, lymph nodes, nerves, and blood vessels.
	12.02	Identify embryonic development of head, oral cavity, and teeth.

	12.03 Identify teeth and their landmarks, and the morphological characteristics of each individual tooth.
	12.04 Describe the histological components of the head, oral cavity, and elements of the teeth and supporting structures.
	12.05 Recognize and describe oral pathological conditions, related to the teeth and their supporting structures.
	12.06 Recognize and describe developmental anomalies related to the teeth, face, and oral structures.
	12.07 Describe and differentiate between normal and malocclusion.
	12.08 Discuss the adverse effects of the use of alcohol, tobacco, and both legal and illegal drugs on the oral cavity.
13.0	Identify principles of microbiology and disease prevention and perform infection control procedures. -- The student will be able to:
	13.01 Differentiate between pathogenic and non-pathogenic microorganisms.
	13.02 Describe pathogens and modes of disease transmission.
	13.03 Differentiate between aseptic and non-aseptic environments.
	13.04 Describe and apply methods of cleaning, disinfection, and sterilization.
	13.05 Identify chemicals and their uses for controlling the spread of disease in the dental environment
	13.06 Identify and practice the current CDC guidelines for infection control in dental healthcare settings.
	13.07 Describe the duties of the dental office safety coordinator.
	13.08 Demonstrate compliance with the OSHA Bloodborne Pathogens Standard (29CFR-1910.1030) applicable to the dental office environment.
	13.09 Identify and manage hazardous chemicals and biomedical wastes in accordance with the OSHA Hazard Communications Standard (29CFR-1910.1200), 64E-16 F.A.C., and Environmental Protection Agency regulations.
	13.10 Define principles of infection control including standard and transmission based precautions.
	13.11 Demonstrate knowledge of dental asepsis.
	13.12 Implement appropriate handwashing procedures and use of protective barriers.
	13.13 Demonstrate knowledge of surgical asepsis and isolation.
14.0	Identify, describe, maintain and utilize dental instruments and equipment.--The student will be able to:
	14.01 Identify various types, functions and operations of dental operatory and laboratory equipment.
	14.02 Identify types and functions of operative, restorative, surgical, prosthodontic, orthodontic and endodontic dental instruments.

14.03	Maintain dental operatory equipment and instruments.
14.04	Identify types and functions of specific dental hygiene instruments with emphasis on category rather than individual instruments.
14.05	Seat and dismiss patients.
14.06	Operate oral evacuation devices and air/water syringe.
14.07	Maintain a clear field of vision including isolation techniques.
14.08	Perform a variety of instrument transfers to include four-handed dentistry.
14.09	Utilize appropriate chairside assistant ergonomics.

Course Number: DEA0727 Occupational Completion Point: C Dental Assisting 1 – 465 Hours – SOC Code 31-9091	
15.0	Record patient assessment and treatment data. -- The student will be able to:
15.01	Take and record medical-dental histories.
15.02	Record assessment of existing oral conditions.
15.03	Record conditions diagnosed by the dentist.
15.04	Record treatment-related data on the patient's clinical record.
15.05	Record treatment plan and treatment in patient's chart.
15.06	Perform a visual assessment of existing oral conditions.
15.07	Distinguish between and report subjective and objective information.
15.08	Report relevant information in order of occurrence.
16.0	Identify the functions of pharmacology and anesthesia as they relate to dentistry. -- The student will be able to:
16.01	Identify drug requirements, agencies, and regulations.
16.02	Distinguish among the five schedules of controlled substances.
16.03	Record a drug prescription in a patient's chart.
16.04	Utilize ratios and proportional problems to calculate prescribed drug dosages.

	16.05 Identify drug actions, side effects, indications and contraindications; verify with Physician's Desk Reference or its equivalent.
	16.06 Identify common drugs used in dentistry.
	16.07 Prepare and apply topical anesthetic agent.
	16.08 Identify properties of anesthetics.
	16.09 Prepare syringes for the administration of local anesthetics.
	16.10 Monitor and identify precautions in the use of nitrous oxide-oxygen conscious sedation.
	16.11 Calculate the percentage of nitrous oxide-oxygen delivered during a conscious sedation procedure.
	16.12 Identify drugs and agents used for treating dental-related infection.
	16.13 Identify and respond to dental office emergencies.
17.0	Identify and perform dental and carpal radiographic procedures. -- The student will be able to:
	17.01 Describe history, physics and biological effects of ionizing radiation.
	17.02 Identify parts of the X-ray machine including accessories.
	17.03 Demonstrate radiologic health protection techniques.
	17.04 Describe dark room/processing procedures, mix solutions.
	17.05 Describe the proper disposal of hazardous radiographic waste.
	17.06 Place and expose dental radiographic films or phosphors and digital sensors.
	17.07 Perform extraoral and carpal radiography as required for dental diagnostic procedures.
	17.08 Identify radiographic anatomical landmarks and pathologies.
	17.09 Mount radiographic surveys.
	17.10 Describe how to maintain unexposed film inventory and storage.
	17.11 Maintain digitally acquired radiographic images.
18.0	Identify properties and uses, and manipulate dental materials. -- The student will be able to:
	18.01 Identify properties and uses and manipulate gypsum.

18.02	Identify properties and uses and manipulate restorative materials.
18.03	Identify properties and uses and manipulate dental cements.
18.04	Place and remove matrices as permitted by Florida Statute and Florida Board of Dentistry Rule.
18.05	Place and remove temporary restorations as permitted by Florida Statute and Florida Board of Dentistry Rule.
18.06	Identify properties and uses and manipulate impression materials.
18.07	Make intraoral impressions as permitted by Florida Statute and Florida Board of Dentistry Rule.
18.08	Identify properties and uses and manipulate acrylics and thermoplastics.
18.09	Identify properties and uses and manipulate waxes.
18.10	Perform dental laboratory procedures to include the fabrication of casts, custom trays, and temporary crowns and bridges.
18.11	Identify and manage hazardous dental materials and wastes in accordance with the OSHA Hazard Communications Standard (29CFR-1910.1200) and Environmental Protection Agency regulations.
18.12	Employ measurements of time, temperature, distance, capacity, and mass/weight during the manipulation of dental materials.
19.0	Perform chairside assisting for general dentistry and specialty procedures. - The student will be able to:
19.01	Describe procedures, equipment, materials, and instrumentation used in the dental specialties to include but not limited to periodontics, endodontics, pedodontics, oral surgery, orthodontics, and prosthodontics.
19.02	Assemble tray set-ups for general and specialty dental procedures.
19.03	Assist in general and specialty dental procedures.
19.04	Perform patient education to include pre- and post-operative instructions as prescribed by a dentist.
19.05	Describe procedures, equipment, and materials utilized in digital dentistry to include CAD/CAM Technology.

Course Number: DEA0728 **Occupational Completion Point: C** **Dental Assisting 2 – 465 Hours – SOC Code 31-9091**	
20.0	Describe principles and perform techniques of preventive dentistry. -- The student will be able to:
20.01	Provide patient preventive education and oral hygiene instruction.
20.02	Prepare and set up for various preventive procedures.
20.03	Identify properties and uses of abrasive agents used to polish coronal surfaces and appliances.

20.04	Perform coronal polish and apply anticariogenic and desensitizing treatments as permitted by Florida Statute and Florida Board of Dentistry Rule.
20.05	Clean and polish removable dental appliances.
20.06	Assist with and place dental dams as permitted by Florida Statute and Florida Board of Dentistry Rule.
20.07	Apply dental sealants as permitted by Florida Statute and Florida Board of Dentistry Rule.
20.08	Identify the elements of nutrition, basic food groups, and acceptable diets as recommended by the U.S. Department of Agriculture.
20.09	Identify dietary deficiencies and dietary practices that contribute to the manifestation of symptoms in the oral cavity.
20.10	Identify community dental resources and services available.
21.0	Perform general dental business office procedures. -- The student will be able to:
21.01	Maintain appointment control.
21.02	Maintain an active recall system.
21.03	Prepare and maintain accurate patient records.
21.04	Prepare and maintain patient financial records, collect fees.
21.05	Prepare and maintain office financial records.
21.06	Prepare and maintain dental office inventory control and purchasing.
21.07	Demonstrate public relations responsibilities of the secretary/receptionist.
21.08	Demonstrate skills on office equipment.
21.09	Maintain the dental business office environment.
21.10	Receive and dismiss patients and visitors.
21.11	Demonstrate appropriate patient management/customer service skills.
21.12	Describe the effect of money management on practice goals.
22.0	Demonstrate professionalism as a dental team member in the clinical setting. – The student will be able to:
22.01	Perform dental assisting duties, dental assisting expanded functions, and dental radiographic procedures in a clinical setting under the direct supervision of a licensed dentist.
22.02	Interact with a professional dental team in the delivery of patient services.

22.03 Utilize employability skills.

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.

Field Internship Activities: Clinical experiences are integrated with the didactic portion of this program. Clinical experience assisting a dentist must be an integral part of the educational program designed to perfect students' competence in performing dental assisting functions, rather than to provide basic instruction. The major portion of the students' time in clinical assignments must be spent assisting with or participating in patient care. Prior to clinical assignments, students demonstrate minimum competence in performing the procedures which they will be expected to perform in their clinical experience.

Special Notes

Dental assisting programs accredited by the American Dental Association Commission on Dental Accreditation are required to implement enrollment and admissions criteria that include the selection of adult students with a high school diploma, its equivalent, or an advanced degree.

This program focuses on broad, transferable skills and stresses understanding and demonstration of the following elements of the health care industry; planning, management, finance, technical and production skills, underlying principles of technology, labor issues, community issues and health, safety, and environmental issues.

This program meets the goals of TECH PREP and is based on the model developed by the Allied Health Articulation Task Force.

This program should meet the most current edition of the American Dental Association Accreditation Standards for Dental Assisting Education Programs. For further information, contact: Commission on Dental Accreditation, 211 East Chicago Avenue, Chicago, Illinois 60611.

For Florida information contact the Florida Agency for Health Care Administration (AHCA), Division of Health Quality Assurance, Board of Dentistry, 4052 Bald Cypress Way, Tallahassee, FL 32399, 850/245-4161.

This program meets the Department of Health's education requirements for HIV/AIDS, Domestic Violence and Prevention of Medical Errors. Although not a requirement for initial licensure, it is a requirement for renewal, therefore the instructor may provide a certificate for renewal purposes to the student verifying these requirements have been met.

If students in this program are seeking a licensure, certificate or registration through the Department of Health, please refer to 456.0635 F.S. for more information on disqualification for a license, certificate, or registration through the Department of Health.

Pursuant to 466.024 F.S., 64B5-16.002 F.A.C. and 64B5-9.011 F.A.C., completers of the dental assisting program may be awarded a certificate verifying formal training which is required for the performance of certain remediable tasks (also known as expanded functions.)

Students should be encouraged to become members and participate in the activities of the professional organization: The American Dental Assistants Association.

Completers of the dental assisting program should be encouraged to take the Dental Assisting National Board (DANB) Certified Dental Assistant (CDA) exam. DANB is recognized by the American Dental Association as the national certification board for dental assistants.

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)

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.

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.

Basic Skills

In a Career Certificate Program offered for 450 hours or more, in accordance with Rule 6A-10.040, F.A.C., the minimum basic skills grade levels required for postsecondary adult career and technical students to complete this program are: Mathematics 10, Language 10, and Reading 10. These grade level numbers correspond to a grade equivalent score obtained on a state designated basic skills examination.

Adult students with disabilities, as defined in Section 1004.02(7), Florida Statutes, may be exempted from meeting the Basic Skills requirements (Rule 6A-10.040). Students served in exceptional student education (except gifted) as defined in s. 1003.01(3) (a), F.S., may also be exempted from meeting the Basic Skills requirement. Each school district and Florida College must adopt a policy addressing procedures for exempting eligible students with disabilities from the Basic Skills requirement as permitted in Section 1004.91(3), F.S.

Students who possess a college degree at the Associate of Applied Science level or higher; who have completed or are exempt from the college entry-level examination; or who have passed a state, national, or industry licensure exam are exempt from meeting the Basic Skills requirement (Rule 6A-10.040, F.A.C.) Exemptions from state, national or industry licensure are limited to the certifications listed on the Basic Skills and Licensure Exemption List which may be accessed from the CTE Program Resources page.

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: **Health Unit Coordinator/ Monitor Technician**
Program Type: **Career Preparatory**
Career Cluster: **Health Science**

Career Certificate Program	
Program Number	H170107
CIP Number	0351070302
Grade Level	30, 31
Standard Length	630 hours
Teacher Certification	Refer to the **Program Structure** section.
CTSO	HOSA: Future Health Professionals
SOC Codes (all applicable)	43-6013 Medical Secretaries 31-9099 Healthcare Support Workers, All Other
Basic Skills Level	Mathematics: 9 Language: 10 Reading: 10

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 Health Science 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 Health Science career cluster.

The content includes but is not limited to interpersonal skills, medical terminology, legal and ethical responsibilities, safe and efficient work practices, clerical skills, safety and security use of computers, interpretation and transcription of doctors' orders, and employability 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 a planned sequence of instruction consisting of 3 occupational completion points.

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	HSC0003	Basic Healthcare Worker	REG NURSE 7 G MED RECTEC 7G TEC MED !7 G	90 hours	31-9099
B	HIM0076	Health Unit Clerk		410 hours	43-6013
C	HIM0090	Monitor Technician		130 hours	43-6013

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 of the healthcare delivery system and health occupations.
02.0 Demonstrate the ability to communicate and use interpersonal skills effectively.
03.0 Demonstrate legal and ethical responsibilities.
04.0 Demonstrate an understanding of and apply wellness and disease concepts.
05.0 Recognize and practice safety and security procedures.
06.0 Recognize and respond to emergency situations.
07.0 Recognize and practice infection control procedures.
08.0 Demonstrate an understanding of information technology applications in healthcare.
09.0 Demonstrate employability skills.
10.0 Demonstrate knowledge of blood borne diseases, including HIV/AIDS.
11.0 Apply basic math and science skills.
12.0 Use oral and written communication skills in creating, expressing and interpreting information and ideas.
13.0 Describe the importance of professional ethics and legal responsibilities for the Health Unit Coordinator.
14.0 Interpret and apply medical terminology specific to health unit clerks.
15.0 Organize and maintain efficient work practices.
16.0 Perform clerical duties.
17.0 Perform patient admission, transfer and discharge procedures.
18.0 Prepare discharge/transfer chart for medical records/new unit.
19.0 Demonstrate the importance of health, safety, and environmental management systems in organizations and their importance to organizational performance and regulatory compliance.
20.0 Read, interpret, process, coordinate and transcribe physicians' orders.
21.0 Demonstrate an understanding of the Health Unit Coordinators role in the Nutritional Care Department.
22.0 Demonstrate an understanding of the Health Unit Coordinators role in processing diagnostic orders.
23.0 Explain the importance of employability skills and entrepreneurship skills for the Health Unit Coordinator.
24.0 Describe the cardiovascular system.
25.0 Identify legal and ethical responsibilities of an EKG Monitor Technician.
26.0 Demonstrate knowledge of, apply and use medical instrumentation modalities.
27.0 Perform patient care techniques in the health care facility.
28.0 Recognize normal and abnormal cardiac telemetry monitoring results.
29.0 Describe common cardiovascular drugs, their actions, use and adverse effects.
30.0 Set up telemetry monitoring, interpret and report abnormal rhythms to the nurse.
31.0 Monitoring, interpreting and reporting abnormal rhythms (dysrhythmias) to the nurse.

Florida Department of Education
Student Performance Standards

Program Title: Health Unit Coordinator
Career Certificate Program Number: H170107

The **Basic Health Care Worker (HSC0003)** is referred to as the **Health Science Core** and is the first OCP in the majority of the Career Certificate Program health science programs. Secondary and Postsecondary students completing the health science core will not have to repeat the core in any other health science program in which it is a part. When the recommended sequence is followed, the structure allows students to complete at specified points for employment or remain for advanced training or cross-training.

Career Certificate Program Course Number: HSC0003
Occupational Completion Point: A
Basic Healthcare Worker – 90 Hours – SOC Code 31-9099

To ensure consistency whenever these courses are offered, the health science core standards (1-11) have been placed in a separate document.

Course Number: HIM0076
Occupational Completion Point: B
Health Unit Clerk – 410 Hours – SOC Code 43-6013

12.0	Use oral and written communication skills in creating, expressing and interpreting information and ideas. --The student will be able to:
12.01	Apply basic speaking and active listening skills including reflection, restatement, and clarification techniques when using the telephone and answering patient call lights.
12.02	Recognize the importance of courtesy and respect for patients and other health care workers and maintain good interpersonal relationships.
12.03	Adapt communication skills to varied levels of understanding and cultural orientation including diverse age, cultural, economic, ethnic, and religious groups.
12.04	Apply active listening skills to obtain and clarify information.
12.05	Exhibit public relations skills that aid in achieving customer satisfaction including face to face interactions.
12.06	Explain why implementation of the electronic medical record is requiring advanced communication skills for the health unit coordinator (HUC).
12.07	Give instances that exemplify human needs, classify each according to Maslow's hierarchy of human needs, and give appropriate responses to meet the listed needs.
12.08	Define and explain the importance of culturally sensitive care in the health care setting.
12.09	List five guidelines to follow that could improve intercultural communication.

13.0	Describe the importance of professional ethics and legal responsibilities for the Health Unit Coordinator. – The student will be able to:
	13.01 List seven patient rights as outlined in HIPAA.
	13.02 Identify seven patient identifiers (individually identifiable health information [IIHI]).
	13.03 Explain two purposes of the Health Information Technology for Economic and Clinical Health (HITECH) Act.
	13.04 Explain the responsibilities the health unit coordinator (HUC) has for HIPAA compliance.
	13.05 Evaluate alternative responses to workplace situations based on personal, professional, ethical, legal responsibilities, and employer policies.
14.0	Interpret and apply medical terminology specific to health unit clerks. – The student will be able to:
	14.01 Identify components of medical terms.
	14.02 Spell, pronounce, and define medical terms as related to Health Unit Coordinator.
	14.03 Relate medical terminology to the body systems.
	14.04 Identify and define standard abbreviations and medical symbols.
	14.05 Identify apothecary and metric systems.
15.0	Organize and maintain efficient work practices. -- The student will be able to:
	15.01 Arrange daily activities by priority.
	15.02 Prepare and post unit information lists.
	15.03 Maintain a supply of assembled medical/surgical admission packets when using paper charts or standard forms.
	15.04 Distribute forms and articles from in-basket.
	15.05 Identify, store and maintain unit equipment/supplies in a neat and orderly manner.
	15.06 Sanitize nursing station equipment.
	15.07 Maintain par levels of supplies as required by the nursing unit
	15.08 Greet all visitors to the nursing unit and offer assistance as necessary.
16.0	Perform clerical duties. – The student will be able to:
	16.01 Demonstrate knowledge of common software applications relevant to the role of the health unit coordinator.

	16.02 Prepare, label and add forms to chart.
	16.03 Record non-clinical admission data on unit records.
	16.04 Obtain previous admission records/X-rays.
	16.05 Post all reports on charts.
	16.06 File and retrieve assorted forms.
	16.07 Maintain patient tracking for patients leaving the unit (electronic or paper log).
	16.08 Conduct “down time” procedure when electronic record program is unavailable due to scheduled downtime or unexpected downtime.
17.0	Perform patient admission, transfer and discharge procedures. – The student will be able to:
	17.01 List four types of admissions and three types of patients.
	17.02 List the common components of a set of admission orders and common health unit coordinator (HUC) tasks regarding the patient’s admission when paper charts are used.
	17.03 Describe how a surgical patient’s admission orders differ from a medical patient’s admission orders and discuss three options for the way in which patient surgeries are performed.
	17.04 List the components that may be included in a set of pre/postoperative orders.
	17.05 Explain why it is important for the HUC to monitor the patient’s electronic medical record (EMR) consistently.
	17.06 Explain the purpose and the benefits of the electronic patient status tracking board for the patient’s family and/or friends.
	17.07 Explain what the HUC’s responsibility would be regarding all medical records, including patient signed consent forms, handwritten progress notes, and reports faxed or sent from other facilities or brought in by a patient when the EMR with computer physician order entry (CPOE) is implemented.
18.0	Prepare discharge/transfer chart for medical records/new unit. – The student will be able to:
	18.01 List the different types of discharges and explain the importance of communicating pending discharge information and bed availability to the admitting department or bed placement in a timely manner.
	18.02 List the tasks that may be required to complete a routine discharge.
	18.03 List the additional tasks that may be required when a patient is discharged to another facility, discharged home with assistance, or when a patient dies (postmortem).
	18.04 Describe the tasks necessary to prepare the discharged patient’s medical record for the health information management services (HIMS) department when paper charts are used.
	18.05 List the tasks that are performed when a patient is transferred from one unit to another.
	18.06 List the tasks performed by the HUC when a patient is transferred from one room to another room on the same unit.

	18.07 Discuss the importance of reading the entire set of discharge or transfer orders prior to the patient being discharged or transferred.
19.0	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:
	19.01 Describe personal and jobsite safety rules and regulations that maintain safe and healthy work environments.
	19.02 Participate in emergency or disaster plan, CPR and first aid.
	19.03 Identify the location of emergency equipment on the nursing unit.
	19.04 Recognize and follow all appropriate emergent code protocols.
	19.05 Comply with regulatory agency guidelines.
20.0	Read, interpret, process, coordinate and transcribe physicians' orders. – The student will be able to:
	20.01 Identify all types of physician's orders.
	20.02 Prioritize orders for transcription.
	20.03 Prepare and route requisitions manually or via computer.
	20.04 Arrange for ordered consultations.
	20.05 Schedule patients' treatments or therapy with other hospital departments.
21.0	Demonstrate an understanding of the Health Unit Coordinators role in the Nutritional Care Department. – The student will be able to:
	21.01 Explain the importance of communicating diet changes and patient food allergies to the nutritional care department.
	21.02 List the groups of diets including nutritional supplements that may be ordered for the hospitalized patient.
	21.03 List consistency changes that can be made to a standard diet and explain what is included in each.
	21.04 List diet options that may be selected for the patient who has started on clear liquids and has an order for diet as tolerated and explain how the selection would be made.
	21.05 Identify therapeutic diets that the patient’s doctor may order.
	21.06 Identify diets that may be requested by patients and assist them in ordering appropriate meals.
	21.07 List the items an HUC may need to order when transcribing an order for tube feeding.
	21.08 Explain the purpose of the doctors’ orders force fluids, limit fluids, and calorie count.
	21.09 Discuss the importance of sending all doctors’ orders regarding a patient’s diet or modifications to a patient’s diet to the nutritional care department.

	21.10 Discuss the importance of sending total parenteral nutrition (TPN) orders to the pharmacy in a timely manner via fax, pneumatic, or dumb waiter system.
22.0	Demonstrate an understanding of the Health Unit Coordinators role in processing diagnostic orders. – The student will be able to:
	22.01 List the major divisions of the clinical laboratory and their functions.
	22.02 List six invasive procedures that would require a consent form signed by the patient.
	22.03 Describe the health unit coordinator's responsibilities in ordering laboratory tests and sending specimens to the laboratory when EMR is used and when paper charts are used and describe how routine, stat, daily, and timed studies would be ordered and performed.
	22.04 Explain how the health unit coordinator's responsibilities regarding diagnostic imaging orders differ with the implementation of the electronic medical record and computer physician order entry versus use of the paper chart.
	22.05 List the required patient information needed when ordering procedures to be performed by the diagnostic imaging department.
	22.06 Explain when a patient would be required to sign an informed consent before a diagnostic imaging procedure.
	22.07 Discuss sequencing or scheduling of multiple diagnostic imaging procedures ordered for the same patient.
	22.08 Demonstrate an understanding of other diagnostic studies.
23.0	Explain the importance of employability skills and entrepreneurship skills for the Health Unit Coordinator. – The student will be able to:
	23.01 Discuss benefits and responsibilities of the HUC as a member of a professional organization.
	23.02 List five benefits of becoming a certified HUC.
	23.03 List three positions in which the HUC may be cross-trained.
	23.04 Compose written communication including emails using correct spelling, grammar, formatting and confidentiality.
	23.05 Observe professional e-mail practices and etiquette.

Course Number: HIM0090 Occupational Completion Point: C Monitor Technician – 130 Hours – SOC Code 43-6013	
24.0	Describe the cardiovascular system. -- The student will be able to:
	24.01 Locate the heart and surrounding structures.
	24.02 Using a diagram label the parts of the heart and list the functions of each labeled part.
	24.03 Trace the flow of blood through the cardiopulmonary system.

	24.04 Identify and describe the electrical conduction system.
25.0	Identify legal and ethical responsibilities of an EKG Monitor Technician--The student will be able to:
	25.01 Recognize and practice legal and ethical responsibilities as they relate to an EKG Monitor Tech.
	25.02 Maintain a safe and efficient work environment.
	25.03 Maintain EKG monitoring equipment so it will be safe and accurate.
	25.04 Implement appropriate monitoring of hospital patient safety goals.
26.0	Demonstrate knowledge of, apply, and use medical instrumentation modalities. -- The student will be able to:
	26.01 Operate cardiac telemetry monitoring equipment related to admitting and discharging patients, trending, changing alarm parameters, changing leads and changing cardiac monitoring paper.
	26.02 Troubleshooting monitor equipment, cleaning and maintaining monitoring equipment.
	26.03 Identify three types of lead systems.
	26.04 Describe correct anatomic placement of standard limb, augmented, and chest (precordial) leads.
	26.05 List three common causes of artifact and the techniques to correct them.
	26.06 Recognize normal sinus rhythm.
	26.07 Report any rhythm that is not normal sinus rhythm.
	26.08 List the three leads that form Einthoven's triangle.
	26.09 Recognize a cardiac emergency as seen on the EKG monitor and explain the importance of rapid reporting.
27.0	Perform patient care techniques in the health care facility. -- The student will be able to:
	27.01 Verify requisition order with patient identification band.
	27.02 Identify patient utilizing name, date of birth, and medical and/or financial number.
	27.03 Prepare the patient for lead placement.
28.0	Recognize normal and abnormal cardiac telemetry monitoring results.-- The student will be able to:
	28.01 Consistently apply a systematic approach to analyze and interpret heart rhythm strips.
	28.02 Identify and examine wave forms, segments, and complexes.

	28.03 Measure PRI, QRS, QTI, and calculate heart rate.
	28.04 Explain the process of evaluating ECG tracings to determine the presence of dysrhythmias.
	28.05 List indications for pacemaker insertion, pacemaker modalities.
	28.06 Recognize normal pacemaker rhythms and malfunctions such as pacemaker failure to fire, failure to capture, over-sensing, and under-sensing.
	28.07 Recognize sinus rhythms including sinus bradycardia, sinus tachycardia, sinus arrhythmia, and sinus pause.
	28.08 Recognize atrial dysrhythmias including atrial tachycardia, atrial fibrillation, atrial flutter, and atrial ectopic beats.
	28.09 Recognize junctional dysrhythmias including junctional rhythm, accelerated junctional, junctional tachycardia, and junctional ectopic beats.
	28.10 Recognize supra ventricular tachycardia.
	28.11 Identify all Heart Blocks including 1st Degree, 2nd Degree Type I, 2nd Degree Type II, Third Degree, and Bundle Branch Blocks.
	28.12 Recognize all lethal cardiac dysrhythmias including Ventricular Tachycardia, Ventricular Fibrillation, and Asystole.
	28.13 Recognize ECG changes that indicate the presence of myocardial ischemia or infarction.
	28.14 Explain the importance of notifying the nurse immediately when ischemic or infarct ECG changes are identified.
	28.15 Identify ECG wave morphology that indicate atrial or ventricular hypertrophies.
	28.16 Recognize ECG changes that indicate premature atrial, junctional, and ventricular complexes and other rare phenomena.
29.0	Describe common cardiovascular drugs, their actions, use and adverse effects. -- The student will be able to:
	29.01 List common cardiovascular drugs and their common adverse effects including ECG changes if applicable.
	29.02 Identify and observe a cardiac emergency.
30.0	Set up telemetry monitoring, interpret and report abnormal rhythms to the nurse. – The student will be able to:
	30.01 Apply and turn on telemetry unit and set alarm parameters according to facility policy.
	30.02 Identify lethal arrhythmias and actions required.
	30.03 Enter and maintain patient identity and location while in telemetry according to patient reconciliation procedures.
	30.04 Identify the PRI, QRS, QTI, T waves, and heart rate.
31.0	Monitoring, interpreting and reporting abnormal rhythms (dysrhythmias) to the nurse. – The student will be able to:

31.01	Oversee cardiac rhythms for dysrhythmias and report to the nurse.
31.02	Examine rhythm strips for clarity and artifact. Record and documents heart rhythm strips per unit policy.
31.03	Identify three types of artifacts and initiates actions to correct them.
31.04	Replace electrodes and apply lead wires using the correct landmarks.
31.05	Records rhythm and documents time of events during cardiac arrest situations, cardioversion procedures, and emergency medication administration as directed by the nurse.
31.06	Maintain constant communication with the nurse during patient emergency situations.

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

Transcription of physicians' orders is an integral part of this course. This competency is achieved through simulated practice with standard equipment and supplies used in a health care facility by the health unit coordinator. An overview of anatomy and physiology serves as a foundation for medical terminology and CPR/first aid. A working knowledge of the computer is a competency achieved through actual practice. Role playing is one of the methods which can be used for developing interpersonal skills.

Supervised clinical experience is an integral part of this program.

This program meets the Department of Health's education requirements for HIV/AIDS, Domestic Violence and Prevention of Medical Errors. Although not a requirement for initial licensure, it is a requirement for renewal, therefore the instructor may provide a certificate for renewal purposes to the student verifying these requirements have been met.

If students in this program are seeking a licensure, certificate or registration through the Department of Health, please refer to 456.0635 F.S. for more information on disqualification for a license, certificate, or registration through the Department of Health.

It is recommended that completers of this program take the National Association of Health Unit Coordinators Certification examination which is offered annually.

Outcomes 01-11 are referred to as the Health Science Core and do not have to be completed if the student has previously completed the Core in another health occupations program at any level. The Core should be taken first or concurrently with the first course in the program. Following the successful completion of the core, the student is eligible to take the National Health Care Foundation Skill Standards Assessment with instructor approval and the completion of a portfolio.

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)

HOSA: Future Health Professionals is the appropriate 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.

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.

Basic Skills

In a Career Certificate Program offered for 450 hours or more, in accordance with Rule 6A-10.040, F.A.C., the minimum basic skills grade levels required for postsecondary adult career and technical students to complete this program are: Mathematics 9, Language 10, and Reading 10. These grade level numbers correspond to a grade equivalent score obtained on a state designated basic skills examination.

Adult students with disabilities, as defined in Section 1004.02(7), Florida Statutes, may be exempted from meeting the Basic Skills requirements (Rule 6A-10.040). Students served in exceptional student education (except gifted) as defined in s. 1003.01(3) (a), F.S., may also be exempted from meeting the Basic Skills requirement. Each school district and Florida College must adopt a policy addressing procedures for exempting eligible students with disabilities from the Basic Skills requirement as permitted in Section 1004.91(3), F.S.

Students who possess a college degree at the Associate of Applied Science level or higher; who have completed or are exempt from the college entry-level examination; or who have passed a state, national, or industry licensure exam are exempt from meeting the Basic Skills requirement (Rule 6A-10.040, F.A.C.) Exemptions from state, national or industry licensure are limited to the certifications listed on the Basic Skills and Licensure Exemption List which may be accessed from the CTE Program Resources page.

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: **Dental Laboratory Technology**
Program Type: **Career Preparatory**
Career Cluster: **Health Science**

Career Certificate Program	
Program Number	H170108
CIP Number	0351060306
Grade Level	30, 31
Standard Length	2040 Hours
Teacher Certification	Refer to the **Program Structure** section.
CTSO	HOSA: Future Health Professionals
SOC Codes (all applicable)	51-9081 Dental Laboratory Technicians 31-9099 Healthcare Support Workers, All Other
Basic Skills Level	Mathematics: 9 Language: 9 Reading: 9

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 Health Science 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 Health Science career cluster.

The program is designed to prepare students for entry level employment as dental laboratory technicians SOC code 51-9081, denture technicians crown & bridge technicians, ceramic & technicians or to provide supplemental training for persons previously or currently employed in this occupation.

The content of the program includes, but is not limited to, general studies, physical sciences, dental sciences, and dental laboratory techniques.

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 6 occupational completion points.

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 post-secondary program structure:

OCP	Course Number	Course Title	Teacher Certification	Length	SOC Code
A	DTE0400	Orientation to Dental Laboratory Technology	DEN LABTEC 7G	18 hours	31-9099
B	DTE0433	Denture Technician 1		319 hours	31-9099
	DTE0434	Denture Technician 2		319 hours	31-9099
C	DTE0435	Advanced Denture Technician		349 hours	31-9099
D	DTE0441	Crown And Bridge Technician		285 hours	31-9099
E	DTE0461	Ceramic Technician		285 hours	31-9099
F	DTE0451	Implant, Attachment & Hybrid Restoration Technician		285 hours	31-9099
G	DTE0481	Master Dental Laboratory Technician		180 hours	31-9099

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 the anatomic structure and function of body systems in relation to prosthetic services performed by the dental laboratory technician.
02.0 Practice quality assurance, safety and infection control.
03.0 Adhere to legal and ethical principles related to the practice of dental laboratory technology.
04.0 Demonstrate knowledge of effective business management techniques.
05.0 Demonstrate knowledge of dental sciences.
06.0 Demonstrate knowledge of physical and mechanical properties of metals and alloys.
07.0 Manufacture various methods of complete denture construction.
08.0 Manufacture complete denture construction on practical work received from dental clinic.
09.0 Manufacture and identify components of a removable partial denture.
10.0 Manufacture orthodontic and pedodontic appliances.
11.0 Demonstrate knowledge and skills required to manufacture single and multi-unit restorations.
12.0 Perform basic occlusion, determinants of occlusal morphology and physiology of mandibular movements.
13.0 Manufacture restorations in the student's specialty for patients who receive treatment at the dental research clinic.
14.0 Demonstrate knowledge of basic concepts of porcelain-fused-to-metal (PFM) techniques.
15.0 Demonstrate proper design and fabrication for individual and three-unit anterior bridge for pressable system restorations.
16.0 Demonstrate proper design and fabrication for all Ceramics Restorations using Refractory System.
17.0 Demonstrated knowledge of the Standard Components for Implant Systems.
18.0 Demonstrate proper design and fabrication for Implants System.
19.0 Describe the Standard Components and fabrication of semi precision attachments.
20.0 Demonstrate proper design and fabrication of Hybrid Restoration.
21.0 Specialization Removable Appliances: Demonstrate their skills in removable dentures on specific projects.
22.0 Perform select proficiency in fixed restorative techniques in chosen areas of specialization.

Florida Department of Education
Student Performance Standards

Program Title: Dental Laboratory Technology
Career Certificate Program Number: H170108

Course Number: DTE0400 **Occupational Completion Point: A** **Orientation to Dental Laboratory Technology – 18 Hours – SOC Code 31-9099**	
01.0	Identify the anatomic structure and function of body systems in relation to prosthetic services performed by the dental laboratory technician. -- The student will be able to:
01.01	Identify structures and functions of head and neck anatomy.
01.02	Identify embryonic development of head, oral cavity and individual teeth.
01.03	Identify each tooth and its landmarks.
02.0	Practice quality assurance, safety, and infection control. -- The student will be able to:
02.01	Practice safety in accordance with institutional policy.
02.02	Identify documentation procedures necessary to comply with state laws.
02.03	Demonstrate knowledge of the dental laboratory technician's role in providing quality assurance in laboratory procedures, reporting, and use and maintenance of equipment.
02.04	Use appropriate dental terminology and abbreviations.
02.05	Demonstrate knowledge, principles, and methods of disease transmission and prevention as related to dental prostheses.
02.06	Demonstrate knowledge of infection control in dental laboratories in accordance with Center for Disease Control (CDC)/OSHA guidelines.
02.07	Establish an infection control procedures policy for the dental laboratory.
03.0	Adhere to legal and ethical principles related to the practice of dental laboratory technology. -- The student will be able to:
03.01	Demonstrate knowledge of the importance of observing the doctor/technician relationship.
03.02	Demonstrate knowledge of state law governing the practice of Dental Laboratory Technology.
04.0	Demonstrate knowledge of effective business management techniques. -- The student will be able to:
04.01	Demonstrate knowledge and use of an office/laboratory procedure manual.

04.02	Demonstrate knowledge and use of business finance and operating expenses.
04.03	Demonstrate knowledge of pay scale and benefit program for employees and a bookkeeping system.
04.04	Demonstrate knowledge of tax forms, payroll records, insurance needs and inventory needs.
04.05	Demonstrate knowledge of employee hiring orientation.
04.06	Demonstrate knowledge of computer applications in the dental laboratory.
Course Number: DTE0433 Occupational Completion Point: B Denture Technician 1 – 319 Hours – SOC Code 31-9099	
05.0	Demonstrate knowledge of dental sciences. -- The student will be able to:
05.01	Demonstrate knowledge of physical properties, use and manipulation of dental materials.
05.02	Demonstrate knowledge of the dynamics of occlusion.
05.03	Demonstrate problem-solving skills as related to dental materials.
06.0	Demonstrate knowledge of physical and mechanical properties of metals and alloys. -- The student will be able to:
06.01	Identify how dental materials are affected by changes in the physical and mechanical properties of the materials.
06.02	List characteristics of a metal.
06.03	Identify the mechanical properties of cast alloys and cold worked metal, strain hardening, recrystallization, and grain growth.
06.04	Identify the metals and percentages in all types of dental casting gold alloys and how different alloys of dental gold casting affect the dental restorations.
06.05	Identify heat treatment techniques for dental casting gold alloys.
06.06	List the types, composition and uses of dental solders.
06.07	Identify composition and uses of dental fluxes and pickling agents.
06.08	Identify composition, physical and mechanical properties and heat treatment techniques for base metal alloys, chrome cobalt and nickel chrome.
06.09	Identify types of burs used in dentistry and the mechanics of cutting.
06.10	Identify abrasion and polishing dentifrices used in the dental lab and how each affects the dental restoration.

Course Number: DTE0434 **Occupational Completion Point: B** **Denture Technician 2 – 319 Hours – SOC Code 31-9099**	
07.0	Manufacture various methods of complete denture construction. -- The student will be able to:
07.01	Make casts by pouring all types of impression material to include dentulous and edentulous impressions.
07.02	Construct base plates by either the light cure and/ or thermoforming vacuum press.
07.03	Construct wax occlusion rims to exact specifications.
07.04	Articulate cast upon which complete dentures are to be made on 1 plain line and semi adjustable articulators.
07.05	Set-up and wax-up complete upper and lower dentures.
07.06	Manufacture temporary all-acrylic removable partial dentures.
07.07	Repair any and all types of dentures.
07.08	Manufacture immediate complete dentures complete with surgical tray.
07.09	Relining complete dentures (upper and lower).
07.10	Perform selective milling grinding in the finishing of complete dentures.
08.0	Manufacture complete denture construction on practical work received from dental clinic. -- The student will be able to:
08.01	Make stone or plaster casts by pouring all types of impressions, both dentulous and semi-edentulous impressions, be it alginate, rubber base or silicone.
08.02	Construct a light cure or thermoformed vacuum base plate and stabilized tray if so ordered on the prescription by the doctor.
08.03	Construct wax occlusal rim to exact measurements.
08.04	Be able to articulate casts on a plain line or semi-adjustable articulator.
08.05	Set-up and wax-up cases.
08.06	Invest, pack, cure, deflask, finish, and polish.
08.07	Repair dentures, flange, adding teeth, or clasp if needed to denture.
08.08	Reline any upper or lower denture.

Course Number: DTE0435 **Occupational Completion Point: C** **Advanced Denture Technician – 349 Hours – SOC Code 31-9099**	
09.0	Manufacture and identify components of a removable partial denture. -- The student will be able to:
09.01	Survey and design maxillary and mandibular removable partial denture framework.
09.02	Block out and duplicate master cast.
09.03	Identify, explain, and use a variety of clasps.
09.04	Wax-up, sprue, invest, burnout and cast non-precious alloy frames.
09.05	Finish and polish metal frames and arrange artificial teeth.
09.06	Demonstrate the bending of wrought wire and perform various repairs.
10.0	Manufacture orthodontic and pedodontic appliances. -- The student will be able to:
10.01	Identify and describe various types of malocclusion as presented in the course.
10.02	Identify and know the treatment objectives of the orthodontic appliances presented in the course.
10.03	Interpret work authorization for orthodontic appliances.
10.04	Complete the assigned laboratory exercises in the course to the standard of clinically acceptable quality.
Course Number: DTE0441 **Occupational Completion Point: D** **Crown And Bridge Technician – 285 Hours – SOC Code 31-9099**	
11.0	Demonstrate knowledge and skills required to manufacture single and multi-unit restorations. -- The student will be able to:
11.01	Pour impression to make casts with removable dies.
11.02	Articulate casts on a semi-adjustable articulator and use various types of articulation systems.
11.03	Prepare dies for waxing.
11.04	Manufacture wax patterns for inlays, onlays, full crowns, and multi-unit restorations.
11.05	Demonstrate proper techniques in spruing, investing, and casting.
11.06	Finish all metal cast restorations.
11.07	Demonstrate a proper diagnostic wax-up for single and multi-unit restorations.

	11.08 Demonstrate the fabrication of provisional restoration using thermoforming vacuum or putty matrix methods.
	11.09 Construct a single and multi-unit restoration.
	11.10 Finish provisional restoration in an acceptable manner.
	11.11 Construct a post and core with a final restoration.
12.0	Perform basic occlusion, determinants of occlusal morphology and physiology of mandibular movements. -- The student will be able to:
	12.01 Identify fundamental occlusion patterning associated with the basic mandibular positions.
	12.02 Identify Dr. Angle's occlusal classifications.
	12.03 Identify cusp types from the functional point of view.
	12.04 Identify the incisal edges and cusps tips of maxillary teeth to mandibular teeth in centric occlusion.
	12.05 Demonstrate the correlation between maxillary and mandibular cusps.
	12.06 Demonstrate an understanding of mandibular movements.
	12.07 Demonstrate an understanding of functional occlusion.
13.0	Manufacture restorations in the student's specialty for patients who receive treatment at the dental research clinic. -- The student will be able to:
	13.01 Complete denture set-up, wax-up, and finish.
	13.02 Perform basic complete denture relines.
	13.03 Demonstrate knowledge of denture repairs.
	13.04 Removable partial denture wax-up, casting and finish.
	13.05 Manufacture a Hawley appliance.
	13.06 Manufacture space maintainer.
	13.07 Fabricate restorations to include: inlay, onlays, full crowns, bridges Porcelain Fused to Metal (PFM), and all ceramic restorations.
	13.08 Manufacture prostheses for patients currently under treatment or from actual casts or impressions and occlusal records from previously fabricated prosthesis.

Course Number: DTE0461 **Occupational Completion Point: E** **Ceramic Technician – 285 Hours – SOC Code 31-9099**	
14.0	Demonstrate knowledge of basic concepts of porcelain-fused-to-metal (PFM) techniques. -- The student will be able to:
14.01	Describe the components of dental porcelain.
14.02	Describe the early porcelain-fused-to-metal systems.
14.03	Identify various alloys used in the fabrication of PFM restorations.
14.04	Identify and explain the uses of opaque, body, incisal, modifier, glaze, and stain porcelains.
14.05	Demonstrate proper metal design for individual and multiple-unit PFM restorations.
14.06	Demonstrate proper spruing, investing, burnout, casting and metal finishing techniques.
14.07	Demonstrate proper and accurate pre-soldering skills.
14.08	Demonstrate proper and accurate post-soldering skills.
14.09	Describe the concept of degassing and metal porcelain bonding.
14.10	Demonstrate approved techniques for opaque, body and incisal porcelain application.
14.11	Identify various porcelain firing cycles.
14.12	Demonstrate approved techniques for contouring and glazing porcelain.
14.13	Describe the basic concepts of staining, the color wheel and hue, chroma and value.
14.14	Demonstrate and understanding of porcelain furnace calibration and maintenance.
15.0	Demonstrate proper design and fabrication for individual and three-unit anterior bridge for pressable system restorations. -- The student will be able to:
15.01	Demonstrate proper wax-up, spruing and investing.
15.02	Demonstrate proper burnout and pressing.
15.03	Demonstrate proper recovery/divesting of a pressed crown and bridge.
15.04	Demonstrate proper finishing techniques of a pressed crown and bridge.
16.0	Demonstrate proper design and fabrication for all Ceramics Restorations using Refractory System. -- The student will be able to:
16.01	Pour impression to make casts with removable dies.

16.02	Fabrication of inlays, onlays and veneers using the Refractory System.
Course Number: DTE0451 Occupational Completion Point: F Implant, Attachment & Hybrid Restoration Technician – 285 Hours – SOC Code 31-9099	
17.0	Demonstrated knowledge of the Standard Components for Implant Systems. -- The student will be able to:
17.01	List the standard components of an implant system including:
117.01	Implant / fixture
217.01	Healing Abutment Cover Screw/ Screw
317.01	Abutment
417.01	Temporary Components
517.01	Angulated Abutment
617.01	Impression Coping
717.01	Open tray/closed tray
817.01	Abutment replicas
917.01	Analogue/ Implant Replica
18.0	Demonstrate proper design and fabrication for Implants System. --The student will be able to:
18.01	Demonstrate the fabrication of a Custom Tray for an Implant Case.
18.02	Demonstrate the fabrication of a Surgical Guide Template.
18.03	Demonstrate the pouring of an impression and fabricate a master cast with an abutment replica in place.
18.04	Apply soft tissue silicone material around the abutment replica.
18.05	Screw/Cement-Retained, Castable Substructure.
18.06	Demonstrate proper substructure design: waxing, spruing, investing, burnout, casting and metal finishing techniques for Implant Systems.
18.07	Demonstrate proper design and fabrication of a porcelain fused to metal crown over an implant abutment.
18.08	Demonstrate approved techniques for opaque, body and incisal porcelain application for Implant Systems.
19.0	Describe the Standard Components and fabrication of semi precision attachments. -- The student will be able to:

	19.01 Explain the uses of attachments and stress breakers.
	19.02 Define and explain basic attachments groups and impression needed.
	19.03 Attachment Selection.
	19.04 Demonstrate proper design and fabrication of a Semi Precision Attachment.
	19.05 Explain the advantages and disadvantages of attachments.
	19.06 Semi Precision Attachments versus Precision Attachments.
20.0	Demonstrate proper design and fabrication of Hybrid Restoration. -- The student will be able to:
	20.01 Fabricate a Bar and Clip Retained Overdenture.
	20.02 Fabricate Custom Tray and Master Cast.
	20.03 Fabricate Baseplate and Occlusion Rims.
	20.04 Articulation and Trial Denture.
	20.05 Fabricate a Bar.
	20.06 Demonstrate proper design and fabrication of a Denture over Implants with a Bar.
Course Number: DTE0481 **Occupational Completion Point: G** **Master Dental Laboratory Technician – 180 Hours – SOC Code 51-9081**	
21.0	Specialization Removable Appliances: Demonstrate their skills in removable dentures on specific projects. -- The student will be able to:
	21.01 Survey and design a maxillary and mandibular removable partial denture.
	21.02 Identify and explain the use of wax in a wide variety of clasps.
	21.03 Duplicate master casts.
	21.04 Sprue and invest waxed partial denture castings.
	21.05 Finish and polish a removable partial denture casting.
22.0	Perform select proficiency in fixed restorative techniques in chosen areas of specialization. -- The student will be able to:
	22.01 Manufacture fixed restorations more quickly and with increased skill.
	22.02 Demonstrate a thorough understanding of the procedures involved in the fabrication of fixed restorations.

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.

Laboratory activities are integrated with the didactic portion of this program. Students perform representative tasks in the manufacture of custom made dental devices and become involved in the dental health team through first hand observation in clinical procedures as they relate to laboratory techniques.

Special Notes

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.

The program should meet the requirements of the Commission on Dental Accreditation of the American Dental Association. Students should be prepared to take the recognized graduate examination offered by the National Board for Certification in Dental Laboratory technology, Inc.

Dental Laboratory Technician And Management – Students receive an Associate in Science degree upon successful completion of the program and are prepared to take the recognized graduate examination offered by the National Board of Certification for Dental Laboratory Technicians.

Dental Laboratory Technicians will complete the certificate program and be prepared to take the recognized graduate examination offered by the National Board of Certificate for Dental Laboratory Technicians.

The standard length of the program is 2040 clock hours.

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)

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.

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.

Basic Skills

In a Career Certificate Program offered for 450 hours or more, in accordance with Rule 6A-10.040, F.A.C., the minimum basic skills grade levels required for postsecondary adult career and technical students to complete this program are: Mathematics 9, Language 9, and Reading 9. These grade level numbers correspond to a grade equivalent score obtained on a state designated basic skills examination.

Adult students with disabilities, as defined in Section 1004.02(7), Florida Statutes, may be exempted from meeting the Basic Skills requirements (Rule 6A-10.040). Students served in exceptional student education (except gifted) as defined in s. 1003.01(3) (a), F.S., may also be exempted from meeting the Basic Skills requirement. Each school district and Florida College must adopt a policy addressing procedures for exempting eligible students with disabilities from the Basic Skills requirement as permitted in Section 1004.91(3), F.S.

Students who possess a college degree at the Associate of Applied Science level or higher; who have completed or are exempt from the college entry-level examination; or who have passed a state, national, or industry licensure exam are exempt from meeting the Basic Skills requirement (Rule 6A-10.040, F.A.C.) Exemptions from state, national or industry licensure are limited to the certifications listed on the Basic Skills and Licensure Exemption List which may be accessed from the CTE Program Resources page.

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: **Hemodialysis Technician**
Program Type: **Career Preparatory**
Career Cluster: **Health Science**

Career Certificate Program	
Program Number	H170207
CIP Number	0351101100
Grade Level	30, 31
Standard Length	600 hours
Teacher Certification	Refer to the **Program Structure** section.
CTSO	HOSA: Future Health Professionals
SOC Codes (all applicable)	31-9099 Healthcare Support Workers, All Other 29-2099 Health Technologists and Technicians, All Other
Basic Skills Level	Mathematics: 10 Language: 10 Reading: 10

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 Health Science 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 Health Science career cluster.

The content includes but is not limited to communication and interpersonal skills, legal and ethical responsibilities, renal health-illness concepts, hemodialysis skills, emergency procedures including CPR and first aid, safety and security procedures, medical terminology, anatomy and physiology, and employability 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 a planned sequence of instruction consisting of 2 occupational completion points.

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	HSC0003	Basic Healthcare Worker	REG NURSE 7 G HEMO TEC 7 G PRAC NURSE @7 %7%G (Must be a Registered Nurse)	90 hours	31-9099
B	MLT0368	Dialysis Technician 1		255 hours	29-2099
	MLT0369	Dialysis Technician 2		255 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 knowledge of the healthcare delivery system and health occupations.
02.0 Demonstrate the ability to communicate and use interpersonal skills effectively.
03.0 Demonstrate legal and ethical responsibilities.
04.0 Demonstrate an understanding of and apply wellness and disease concepts.
05.0 Recognize and practice safety and security procedures.
06.0 Recognize and respond to emergency situations.
07.0 Recognize and practice infection control procedures.
08.0 Demonstrate an understanding of information technology applications in healthcare.
09.0 Demonstrate employability skills.
10.0 Demonstrate knowledge of blood borne diseases, including HIV/AIDS.
11.0 Apply basic math and science skills.
12.0 Demonstrate accepted professional, communication and interpersonal skills specific to the dialysis setting.
13.0 Identify normal and abnormal anatomic structure and function of body systems in relation to services performed by a Hemodialysis Technician.
14.0 Practice infection control following universal precautions.
15.0 Recognize and demonstrate knowledge of how to utilize equipment and supplies specific to dialysis.
16.0 Demonstrate skills and knowledge necessary to perform dialysis technician duties.
17.0 Practice accepted procedures of transporting specimens.
18.0 Practice quality assurance and safety.

Florida Department of Education
Student Performance Standards

Program Title: Hemodialysis Technician
Career Certificate Program Number: H17207

The **Basic Health Care Worker (HSC0003)** is referred to as the **Health Science Core** and is the first OCP in the majority of the Career Certificate Program health science programs. Secondary and Postsecondary students completing the health science core will not have to repeat the core in any other health science program in which it is a part. When the recommended sequence is followed, the structure allows students to complete at specified points for employment or remain for advanced training or cross-training.

PSAV Course Number: HSC0003
Occupational Completion Point: A
Basic Healthcare Worker – 90 Hours – SOC Code 31-9099

To ensure consistency whenever these courses are offered, the health science core standards (1-11) have been placed in a separate document.

Course Number: MLT0368 **Occupational Completion Point: B** **Dialysis Technician 1 – 255 Hours – SOC Code 29-2099**	
12.0	Demonstrate accepted professional, communication, and interpersonal skills specific to the dialysis setting. – The student will be able to:
12.01	Demonstrate knowledge of correct medical terminology related to dialysis.
12.02	Demonstrate ability to work as a member of the hemodialysis team.
12.03	Demonstrate knowledge of various professional organizations related to hemodialysis.
12.04	Recognize the importance of continuing education and renewal of certification.
12.05	Recognize and respond appropriately to request from or to other departments or health care team members.
12.06	Describe the role of other health team members who interact with the dialysis team.
13.0	Identify normal and abnormal anatomic structure and function of body systems in relation to services performed by a hemodialysis technician. – The student will be able to:
13.01	Demonstrate knowledge of basic structure of the kidney.
13.02	Demonstrate knowledge of basic physiology of the kidney including but not limited to filtration, diffusion, osmosis, and electrolyte interchange.

	13.03 Recognize function of endocrine system as related to the kidney.
	13.04 Describe interaction of other body systems related to dialysis.
	13.05 Discuss diseases, including diagnosis, treatment, and signs and symptoms, which may lead to kidney failure and need for dialysis.
14.0	Practice infection control following standard precautions. – The student will be able to:
	14.01 Demonstrate knowledge of how (when) to utilize personal protection equipment (PPE).
	14.02 Demonstrate ability to recognize biohazardous waste storage and disposal, including, but not limited to isolation room waste.
	14.03 Follow standard precautions, clean techniques and OSHA regulations appropriately
	14.04 Label biohazardous waste correctly including date and location.
15.0	Recognize and demonstrate knowledge of how to utilize equipment and supplies specific to dialysis. – The student will be able to:
	15.01 Demonstrate use of water quality instrumentation including, but not limited to pH meter, conductivity meter and chloramine meter.
	15.02 Recognize supplies needed to conduct the hemodialysis treatment.
	15.03 Demonstrate ability to conduct daily inventory of hemodialysis supplies including, but not limited to dialysis, blood lines, and sodium chloride.
	15.04 Recognize necessity of keeping areas stocked for each staff.
Course Number: MLT0369 Occupational Completion Point: B Dialysis Technician 2 – 255 Hours – SOC Code 29-2099	
16.0	Demonstrate skills and knowledge necessary to perform dialysis technician duties. – The student will be able to:
	16.01 Demonstrate accurate documentation, machine trouble-shooting, and follow-up of whole patient hemodialysis treatment.
	16.02 Recognize any visual changes in patient’s behavior, hemodialysis machines and water room.
	16.03 Demonstrate knowledge of how to document any variance while patient is being dialyzed including, but not limited to vital signs, machine's pava meters, and water room.
	16.04 Demonstrate ability to cannulate, assess and confirm blood flow direction in patient's access; including, but not limited to signs of infection and patency.
17.0	Practice accepted procedures of transporting specimens. – The student will be able to:
	17.01 Collect blood specimens utilizing correct drawing techniques, refrigeration, packing, and transportation.
	17.02 Follow laboratory's policy and procedures (P and P) from collection of specimens to separation of blood form elements.

18.0	Practice quality assurance and safety. – The student will be able to:
18.01	Demonstrate how to follow-up physician's medical orders, including, but not limited to treatment length, blood flow rates, dialysis type and concentration.
18.02	Assist with maintenance of appropriate aseptic techniques (clean and/or sterile) during cannulation.
18.03	Recognize patient's target weight (TW) importance, and maximum ultra-filtration rate possible.
18.04	Describe patient's probable prognosis when dry weight is not reached.
18.05	Demonstrate patient safety practices as related to permanent monitor patient - machine.
18.06	Identify appropriate procedures and protocols to manage and correct common complications, including but not limited to, intradialytic hypotension, air embolisms, exsanguination (mass blood loss) and hemolysis.

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.

Hands on clinical experience should be provided as part of the program of study. Refer to specific certification exam eligibility requirements in relation to clinical experience.

Special Notes

This program meets the Department of Health's education requirements for HIV/AIDS, Domestic Violence and Prevention of Medical Errors. Although not a requirement for initial licensure, it is a requirement for renewal, therefore the instructor may provide a certificate for renewal purposes to the student verifying these requirements have been met.

If students in this program are seeking a licensure, certificate or registration through the Department of Health, please refer to 456.0635 F.S. for more information on disqualification for a license, certificate, or registration through the Department of Health.

State or Industry certification examinations are now part of the Centers of Medicare and Medicaid Services' (CMS) requirements and are available through several state and independent professional certification agencies:

Nephrology Nursing Certification Commission (NNCC)

The Board of Nephrology Examiners Nursing and Technology (BONENT)

Outcomes 01-11 are referred to as the Health Career Core and do not have to be completed if the student has previously completed the Core in another health occupations program at any level. The Core should be taken first or concurrently with the first course in the program. Following the successful completion of the core, the student is eligible to take the National Health Care Foundation Skill Standards Assessment with instructor approval and the completion of a portfolio.

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)

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.

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.

Basic Skills

In a Career Certificate Program offered for 450 hours or more, in accordance with Rule 6A-10.040, F.A.C., the minimum basic skills grade levels required for postsecondary adult career and technical students to complete this program are: Mathematics 10, Language 10, and Reading 10. These grade level numbers correspond to a grade equivalent score obtained on a state designated basic skills examination.

Adult students with disabilities, as defined in Section 1004.02(7), Florida Statutes, may be exempted from meeting the Basic Skills requirements (Rule 6A-10.040). Students served in exceptional student education (except gifted) as defined in s. 1003.01(3) (a), F.S., may also be exempted from meeting the Basic Skills requirement. Each school district and Florida College must adopt a policy addressing procedures for exempting eligible students with disabilities from the Basic Skills requirement as permitted in Section 1004.91(3), F.S.

Students who possess a college degree at the Associate of Applied Science level or higher; who have completed or are exempt from the college entry-level examination; or who have passed a state, national, or industry licensure exam are exempt from meeting the Basic Skills requirement (Rule 6A-10.040, F.A.C.) Exemptions from state, national or industry licensure are limited to the certifications listed on the Basic Skills and Licensure Exemption List which may be accessed from the CTE Program Resources page.

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: **Electrocardiograph Technology**
Program Type: **Career Preparatory**
Career Cluster: **Health Science**

Career Certificate Program	
Program Number	H170208
CIP Number	0351090203
Grade Level	30, 31
Standard Length	465 hours
Teacher Certification	Refer to the **Program Structure** section.
CTSO	HOSA: Future Health Professionals
SOC Codes (all applicable)	31-9099 Healthcare Support Workers, All Other 29-2031 Cardiovascular Technologists and Technicians
Basic Skills Level	Mathematics: 9 Language: 9 Reading: 9

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 Health Science 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 Health Science career cluster.

The program is designed to prepare students for employment as electrocardiograph aides, electrocardiograph technicians, EKG Technicians SOC 29-2031 cardiovascular technologists and technicians or to provide supplemental training for persons previously or currently employed in this occupation.

The content includes but is not limited to communication and interpersonal skills, overview of human anatomy and physiology with emphasis on cardiac and vascular systems, medical terminology and transcription, patient care techniques, medical instrumentation, cardiovascular drugs, interpretation of monitoring and testing results, medical ethics, cardiac wellness and rehabilitation, safe and efficient work practices, CPR, Basic Life Support (BLS) and employability 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 a planned sequence of instruction consisting of 3 occupational completion points.

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	HSC0003	Basic Healthcare Worker	LAB TECH @7 7G EKG 7 G REG NURSE 7 G RESP THER @7 7G PARAMEDIC @7 7G PRAC NURSE @7 %7%G *(Must be a Registered Nurse)	90 hours	31-9099
B	MEA0540	EKG Aide		75 hours	31-9099
C	MEA0541	EKG Technician		300 hours	29-2031

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 of the healthcare delivery system and health occupations.
02.0 Demonstrate the ability to communicate and use interpersonal skills effectively.
03.0 Demonstrate legal and ethical responsibilities.
04.0 Demonstrate an understanding of and apply wellness and disease concepts.
05.0 Recognize and practice safety and security procedures.
06.0 Recognize and respond to emergency situations.
07.0 Recognize and practice infection control procedures.
08.0 Demonstrate an understanding of information technology applications in healthcare.
09.0 Demonstrate employability skills.
10.0 Demonstrate knowledge of blood borne diseases, including HIV/AIDS.
11.0 Apply basic math and science skills.
12.0 Describe the cardiovascular system.
13.0 Identify legal and ethical responsibilities of an EKG aide.
14.0 Demonstrate knowledge of, apply and use medical instrumentation modalities.
15.0 Perform patient care techniques in the health care facility.
16.0 Recognize normal and abnormal monitoring and testing results.
17.0 Describe cardiovascular drugs, their actions, use, and adverse effects.
18.0 Demonstrate knowledge of other cardiovascular diagnostic modalities.

Florida Department of Education
Student Performance Standards

Program Title: Electrocardiograph Technology
Career Certificate Program Number: H170208

The **Basic Health Care Worker (HSC0003)** is referred to as the **Health Science Core** and is the first OCP in the majority of the Career Certificate Program health science programs. Secondary and Postsecondary students completing the health science core will not have to repeat the core in any other health science program in which it is a part. When the recommended sequence is followed, the structure allows students to complete at specified points for employment or remain for advanced training or cross-training.

Career Certificate Program Course Number: HSC0003
Occupational Completion Point: A
Basic Healthcare Worker – 90 Hours – SOC Code 31-9099

To ensure consistency whenever these courses are offered, the health science core standards (1-11) have been placed in a separate document.

Course Number: MEA0540 **Occupational Completion Point: B** **EKG Aide – 75 Hours – SOC Code 31-9099**	
12.0	Describe the cardiovascular system. -- The student will be able to:
12.01	Locate the heart and surrounding structures.
12.02	Diagram and label the parts of the heart and list the functions of each labeled part.
12.03	Trace the flow of blood through the cardiopulmonary system.
12.04	Identify and describe the electrical conduction system.
12.05	Describe the function of the autonomic nervous system.
12.06	Describe signs and symptoms of a patient demonstrating poor perfusion or low cardiac output and state the importance of rapid reporting.
13.0	Identify legal and ethical responsibilities of an EKG aide. -- The student will be able to:
13.01	Recognize and practice legal and ethical responsibilities as they relate to an EKG aide.
13.02	Maintain a safe and efficient work environment.
13.03	Maintain EKG equipment so it will be safe and accurate.

13.04	Implement appropriate Joint Commission patient safety goals and adhere to HIPAA regulations regarding protected health information (PHI).
14.0	Demonstrate knowledge of, apply, and use medical instrumentation modalities. -- The student will be able to:
14.01	Calibrate and maintain EKG equipment in the work environment.
14.02	Identify three types of lead systems (standard/limb, augmented, and precordial/chest).
14.03	State Einthoven's triangle.
14.04	Demonstrate proper lead placement including lead placement with special considerations for various patients with special needs to include pediatric, amputees, and posterior and right sided EKGs.
14.05	Identify artifacts and mechanical problems.
14.06	Perform a 3, 5, and 12 lead EKG.
14.07	Recognize normal sinus rhythm.
14.08	Report dysrhythmias that are not normal sinus rhythm.
14.09	Recognize signs and symptoms of cardiopulmonary compromise on the EKG tracing and understand the importance of rapid reporting. .
14.10	Verify accuracy of lead placement on the EKG.
14.11	Verify settings on the EKG machine such as paper speed, sensitivity (gain), and Hertx (Hz) prior to use.
15.0	Perform patient care techniques in the health care facility. -- The student will be able to:
15.01	Describe the physical and mental preparation of the patient for EKG testing.
15.02	Identify patient and verify the requisition order.
15.03	Prepare patient for cardiovascular diagnostic testing.
15.04	Obtain patient’s vitals (temperature, pulse, respirations, blood pressure, and pulse oximetry) in preparation for cardiovascular diagnostic testing and report abnormalities.
15.05	State precautions required when performing cardiovascular diagnostic procedures.
15.06	Convey the importance of maintaining a safe patient environment and evaluate potential hazards in the work environment.

Course Number: MEA0541 **Occupational Completion Point: C** **EKG Technician – 300 Hours – SOC Code 29-2031**	
16.0	Recognize normal and abnormal monitoring and testing results. -- The student will be able to:
16.01	Inspect and measure the various waveforms of a cardiac cycle including segments, complexes, heart rates and intervals.
16.02	Identify electrical axis.
16.03	Recognize pacemaker spikes on the EKG and state the purpose of pacemakers.
16.04	Recognize normal and deviations from normal sinus rhythms.
16.05	Recognize all atrial rhythms.
16.06	Recognize all junctional rhythms.
16.07	Recognize all ventricular rhythms.
16.08	Recognize all types of heart blocks.
16.09	Recognize normal and deviations from single chamber and dual chamber pacemakers, as well as all implantable cardioverter defibrillators.
16.10	Identify myocardial ischemia, injury, and infarction on EKG tracing.
16.11	Recognize atrial and ventricular hypertrophies.
16.12	Recognize ectopic beats and any rare phenomena.
16.13	Recognize normal and deviations from normal 12 lead EKG results.
16.14	Describe potential patient responses to all dysrhythmias and other EKG abnormalities.
16.15	Recognize and respond promptly to life threatening dysrhythmias during continuous monitoring such as telemetry.
17.0	Describe cardiovascular drugs, their actions, use and adverse effects. -- The student will be able to:
17.01	Describe the mechanisms by which common cardiovascular drugs work including actions and adverse effects.
17.02	Differentiate between normal and abnormal EKG changes potentially due to drugs.
18.0	Demonstrate knowledge of other cardiovascular diagnostic modalities. -- The student will be able to:
18.01	Demonstrate knowledge of the application of a Holter Monitor and provide patient education of its use.
18.02	Demonstrate the procedures for preparing the patient for stress testing/scanning exercise treatment and provide patient education.

18.03	Understand and demonstrate patient documentation for all types of monitoring.
18.04	Describe other modalities of cardiovascular diagnosis and interpretation.
18.05	Maintain patient cardiac alarm policy at all times as per acceptable facility guidelines.

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

This cluster of programs focuses on broad, transferable skills and stresses understanding and demonstration of the following elements of the health care industry; planning, management, finance, technical and production skills, underlying principles of technology, labor issues, community issues and health, safety, and environmental issues.

Students must complete the core, or demonstrate the mastery of skills standards contained in the core, before advancing in the program.

This program meets the Department of Health's education requirements for HIV/AIDS, Domestic Violence and Prevention of Medical Errors. Although not a requirement for initial licensure, it is a requirement for renewal, therefore the instructor may provide a certificate for renewal purposes to the student verifying these requirements have been met.

If students in this program are seeking a licensure, certificate or registration through the Department of Health, please refer to 456.0635 F.S. for more information on disqualification for a license, certificate, or registration through the Department of Health.

A voluntary national certification is available through an exam offered by the National Health Career Association, 194 Rt. 46 East, Fairfield, NJ 07004 (973/244-0023). To be eligible students must;

1. Have a High School Diploma or equivalency and have completed an NHA approved training program.

OR

2. Have a High School Diploma or equivalency and have worked in the field for a minimum of one year.

Outcomes 01-11 are referred to as the Health Career Core and do not have to be completed if the student has previously completed the Core in another health occupations program at any level. Following the successful completion of the core, the student is eligible to take the National Health Care Foundation Skill Standards Assessment with instructor approval and the completion of a portfolio. The Core should be taken first or concurrently with the first course in the program.

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)

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.

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.

Basic Skills

In a Career Certificate Program offered for 450 hours or more, in accordance with Rule 6A-10.040, F.A.C., the minimum basic skills grade levels required for postsecondary adult career and technical students to complete this program are: Mathematics 9, Language 9, and Reading 9. These grade level numbers correspond to a grade equivalent score obtained on a state designated basic skills examination.

Adult students with disabilities, as defined in Section 1004.02(7), Florida Statutes, may be exempted from meeting the Basic Skills requirements (Rule 6A-10.040). Students served in exceptional student education (except gifted) as defined in s. 1003.01(3) (a), F.S., may also be exempted from meeting the Basic Skills requirement. Each school district and Florida College must adopt a policy addressing procedures for exempting eligible students with disabilities from the Basic Skills requirement as permitted in Section 1004.91(3), F.S.

Students who possess a college degree at the Associate of Applied Science level or higher; who have completed or are exempt from the college entry-level examination; or who have passed a state, national, or industry licensure exam are exempt from meeting the Basic Skills requirement (Rule 6A-10.040, F.A.C.) Exemptions from state, national or industry licensure are limited to the certifications listed on the Basic Skills and Licensure Exemption List which may be accessed from the CTE Program Resources page.

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: **Surgical Technology**
Program Type: **Career Preparatory**
Career Cluster: **Health Science**

Career Certificate Program	
Program Number	H170211
CIP Number	0351090905
Grade Level	30, 31
Standard Length	1330 hours
Teacher Certification	Refer to the **Program Structure** section.
CTSO	HOSA: Future Health Professionals
SOC Codes (all applicable)	31-9099 Healthcare Support Workers, All Other 29-2055 Surgical Technologists
Basic Skills Level	Mathematics: 10 Language: 11 Reading: 11

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 Health Science 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 Health Science career cluster.

The program is designed to prepare students for employment as surgical technologists (SOC 29-2055). Selected portions of this program may be utilized to provide additional skills to enable nursing graduates to become employable in operating rooms as surgical technologists.

The content includes but is not limited to communication and interpersonal skills, legal and ethical responsibilities, anatomy, physiology, pathophysiology, microbiology, aseptic techniques, patient care procedures, surgical technology procedures, patient safety, use and care of equipment and supplies, CPR, Heartsaver, employability skills, and basic computer literacy.

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 3 occupational completion points.

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	HSC0003	Basic Healthcare Worker	OPR RM TEC @7 7G REG NURSE 7 G OPR REG NURSE 7 G SURG TECH 7 G PRAC NURSE @7 %7%G *(Must be a Registered Nurse)	90 hours	31-9099
B	STS0015	Central Supply Technician		210 hours	31-9099
C	STS0010	Surgical Technologist 1		343 hours	29-2055
	STS0011	Surgical Technologist 2		343 hours	
	STS0012	Surgical Technologist 3		344 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 knowledge of the healthcare delivery system and health occupations.
02.0 Demonstrate the ability to communicate and use interpersonal skills effectively.
03.0 Demonstrate legal and ethical responsibilities.
04.0 Demonstrate an understanding of and apply wellness and disease concepts.
05.0 Recognize and practice safety and security procedures.
06.0 Recognize and respond to emergency situations.
07.0 Recognize and practice infection control procedures.
08.0 Demonstrate an understanding of information technology applications in healthcare.
09.0 Demonstrate employability skills.
10.0 Demonstrate knowledge of blood borne diseases, including HIV/AIDS.
11.0 Apply basic math and science skills.
12.0 Demonstrate central supply skills.
13.0 Use communication and interpersonal skills as related to surgical technology.
14.0 Demonstrate an understanding of the basic sciences related to surgical technology.
15.0 Demonstrate knowledge of pharmacology and math calculation principles related to the surgical environment.
16.0 Describe and practice safety measures in the surgical environment.
17.0 Assist the RN circulator with patient care procedures related to the surgical environment and describe methods for meeting patient's needs.
18.0 Demonstrate knowledge of the skills necessary to function safely and effectively.
19.0 Demonstrate knowledge of and assist with surgical procedures.
20.0 Demonstrate an understanding of legal and ethical responsibilities specific to surgical technology.

Florida Department of Education
Student Performance Standards

Program Title: Surgical Technology
Career Certificate Program Number: H170211

The **Basic Health Care Worker (HSC0003)** is referred to as the **Health Science Core** and is the first OCP in the majority of the Career Certificate Program health science programs. Secondary and Postsecondary students completing the health science core will not have to repeat the core in any other health science program in which it is a part. When the recommended sequence is followed, the structure allows students to complete at specified points for employment or remain for advanced training or cross-training.

Career Certificate Program Course Number: HSC0003
Occupational Completion Point: A
Basic Healthcare Worker – 90 Hours – SOC Code 31-9099

To ensure consistency whenever these courses are offered, the health science core standards (1-11) have been placed in a separate document.

Course Number: STS0015 **Occupational Completion Point: B** **Central Supply Technician – 210 Hours – SOC Code 31-9099**	
12.0	Demonstrate central supply skills. – The student will be able to:
12.01	Apply the principles of medical/surgical asepsis including attire, environmental control and traffic patterns to control and manage dirty, clean and sterile areas of the operating room and central supply.
12.02	Apply infection control techniques following Center for Disease Control (CDC) guidelines.
12.03	Inspect and send out for repair instruments, equipment and supplies regarding condition and quantity.
12.04	Describe the methods of disinfection and sterilization.
12.05	Demonstrate the handling, inspection and notification process regarding package integrity.
12.06	Demonstrate correctly decontamination techniques for instruments, equipment, and the environment used for surgical procedures.
12.07	Describe clean and sterile transportation, restocking, and storage principles for instruments, supplies and equipment.
12.08	Identify instruments, supplies and equipment for any surgical procedure.
12.09	Describe various supply distribution and inventory control methods.
12.10	Demonstrate ability to prepare and label items for high level disinfection and sterilization correctly.

12.11	Demonstrate the techniques of high level disinfection and sterilization for immediate use items.
12.12	Demonstrate case cart preparation and management.

Course Number: STS0010 Occupational Completion Point: C Surgical Technologist 1 – 343 Hours – SOC Code 29-2055	
13.0	Use communication and interpersonal skills as related to surgical technology. – The student will be able to:
13.01	Describe various forms of communication in the role of surgical technologist.
13.02	Analyze and select the appropriate behavioral response unique to the patient's needs.
13.03	Describe the concepts of conflict resolution, assertive behavior and the principles of teamwork in the surgical environment.
14.0	Demonstrate an understanding of the basic sciences related to surgical technology. – The student will be able to:
14.01	Describe the concepts of microbiology and relate key principles to the surgical environment.
14.02	Compare and contrast the structure and characteristics of microorganisms found in the surgical environment.
14.03	Relate medical terminology, medical abbreviations, and anatomy and physiology to surgical specialties and specific procedures.
14.04	Analyze patient defense mechanisms, the chain of infection and the infectious process as related to surgical practice.
14.05	Demonstrate infection and disease transmission control techniques following the Center for Disease Control (CDC) and Occupational Safety and Health Administration (OSHA) guidelines for surgery.
14.06	Correlate wound classifications and wound healing principles with wound management guidelines.
14.07	Discuss the principles of information technology, electricity and robotics as they relate to surgery.
15.0	Demonstrate knowledge of pharmacology and math calculation principles related to the surgical environment. -- The student will be able to:
15.01	Describe the roles of the anesthesia provider and circulating nurse.
15.02	Analyze the administration of anesthesia including the methods, agents, and techniques.
15.03	Describe the preoperative examination and preparation process for both surgery and anesthesia.
15.04	Describe potential anesthesia and operative complications and interventions for each.
15.05	Define the terminology and describe the basic concepts of pharmacology including pharmacokinetics and pharmacodynamics.
15.06	Identify the classifications, actions, effects and precautions for common drugs used at the sterile field and within the surgical

	environment.
15.07	Demonstrate the application of the six rights of medication administration.
15.08	Analyze and assemble correctly all medication supplies, for each drug to be used on the sterile field.
15.09	Demonstrate the appropriate methods of transferring and accepting medications onto the sterile field.
15.10	Prepare, manage and label sterile solutions and medications accurately within the sterile field.
15.11	Correctly calculate common medication conversions and dosages.
15.12	Demonstrate preparation and passing of medication mixtures using ratio and proportions correctly. .
15.13	Maintains an accurate account of the amount of each medication and/or solution used at the field and notifies circulator as appropriate to the situation to ensure accurate documentation.
16.0	Describe and practice safety measures in the surgical environment. – The student will be able to:
16.01	Describe the role, job duties and responsibilities of the surgical technologist in the healthcare setting.
16.02	Inspect emergency equipment and supplies for condition and quantity.
16.03	Demonstrate appropriate safety measures to prevent operating room fires and electrical shock from equipment.
16.04	Describe appropriate safety measures for laser and electrosurgical unit usage in surgery.
16.05	Implement appropriate regulatory and accreditation agency patient safety guidelines.
16.06	Describe the role of the surgical technologist in a disaster situation.
16.07	Describe the role of the surgical technologist in an emergency patient situation.
16.08	Prepare the operative site.
16.09	Perform steps for Foley catheter insertion and connecting to drainage correctly.

Course Number: STS0011 Occupational Completion Point: C Surgical Technologist 2 – 343 Hours – SOC Code 29-2055	
17.0	Assist the RN circulator with patient care procedures related to the surgical environment and describe methods for meeting patient's needs. – The student will be able to:
17.01	Perform patient transfer/transportation techniques used in the operating room.
17.02	Assist with positioning and apply safety devises to the patient for surgery.
17.03	Ground patient and connect electrosurgical cautery unit.
17.04	Describe the roles of anesthetist and circulating nurse during induction.
17.05	Prepare the operative site.
17.06	Perform steps for Foley catheter insertion and connecting to drainage.
17.07	Apply sterile dressing and bandage.
18.0	Demonstrate knowledge of the skills necessary to function safely and effectively. – The student will be able to:
18.01	Select and verify instruments, equipment and supplies, including any implants needed for surgical procedures using surgeon preference/procedure cards including those identified as “have available/hold items”.
18.02	Measure and pour sterile solutions.
18.03	Perform surgical scrub.
18.04	Put on sterile gown and gloves.
18.05	Drape tables and solution stands.
18.06	Set up sterile mayo stand and instrument table.
18.07	Prepare sutures, ligatures, and ties.
18.08	Prepare, pass, and monitor amount given for medications used on the sterile field.
18.09	Assist surgeon in gowning and gloving.
18.10	Assist in draping patient, pass instruments, monitor field.
18.11	Identify/correct and/or report breaks in aseptic technique.
18.12	Monitor body fluids, e.g. blood loss, ascites.

18.13	Perform complete counts with R.N.
18.14	Identify principles and demonstrate techniques of disinfection and sterilization.
18.15	Assist in removing/applying cast.
18.16	Assist in maintaining retraction, cutting suture and holding instruments as directed by the surgeon in the second assistant role.
18.17	Prepare specimen for laboratory analysis.
18.18	Decontaminate instruments equipment and environment.
18.19	Replenish supplies and equipment.
18.20	Describe how to update procedure/preference cards.
18.21	Apply electrical knowledge to safe patient care practices in surgery.

Course Number: STS0012 Occupational Completion Point: C Surgical Technologist 3 – 344 Hours – SOC Code 29-2055	
19.0	Demonstrate knowledge of and assist with surgical procedures. – The student will be able to:
19.01	Identify preoperative diagnosis, common complications, and operative pathology relating to specific surgical procedures.
19.02	List and describe types of incisions and wound closures.
19.03	Describe the usual sequence of a common surgical procedure (i.e. incision into the anatomy, dissection of the anatomy and closing of the anatomy).
19.04	Demonstrates the ability to select the appropriate instrument, equipment, or supply for each step of the procedure.
19.05	Demonstrates proper cost effective methods including the ability to identify “have available/hold items”.
20.0	Demonstrate an understanding of legal and ethical responsibilities specific to surgical technology. – The student will be able to:
20.01	State methods, standards, and aids that assist a surgical technologist with interpreting and following legal responsibilities.
20.02	Describe the role of the surgical technologist in the healthcare setting. Provide health care within the ethical/legal framework of the surgical technologist’s role.

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.

Clinical learning experiences in an operating room and related areas are an integral part of this program. It is strongly recommended that a teacher to student ratio of 1:6 be held in the laboratory setting.

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.

This program focuses on broad, transferable skills and stresses understanding and demonstration of the following elements of the health care industry; planning, management, finance, technical and production skills, underlying principles of technology, labor issues, community issues and health, safety, and environmental issues.

This program meets the Department of Health's education requirements for HIV/AIDS, Domestic Violence and Prevention of Medical Errors. Although not a requirement for initial licensure, it is a requirement for renewal, therefore the instructor may provide a certificate for renewal purposes to the student verifying these requirements have been met.

If students in this program are seeking a licensure, certificate or registration through the Department of Health, please refer to 456.0635 F.S. for more information on disqualification for a license, certificate, or registration through the Department of Health.

The program should meet the requirements of the Commission on Accreditation of Allied Health Education Programs (CAAHEP) or Accrediting Bureau of Health Education Schools (ABHES).

After successful completion of a Commission on Accreditation of Allied Health Education Programs (CAAHEP) or Accrediting Bureau of Health Education Schools (ABHES) accredited program, students are eligible to take the National Board of Surgical Technologist and Surgical Assisting (NBSTSA), Certified Surgical Technologist exam.

Please contact NBSTSA for more information on this exam:

National Board of Surgical Technologist and Surgical Assisting (NBSTSA)
6 West Dry Creek Circle, Suite 100 Littleton, Colorado 80120
Toll-free: (800) 707-0057

Outcomes 01-11 are referred to as the Health Science Core and do not have to be completed if the student has previously completed the Core in another health occupations program at any level. The Core should be taken first or concurrently with the first course in the program. Following the successful completion of the core, the student is eligible to take the National Health Care Foundation Skill Standards Assessment with instructor approval and the completion of a portfolio.

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.

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.

Basic Skills

In a Career Certificate Program offered for 450 hours or more, in accordance with Rule 6A-10.040, F.A.C., the minimum basic skills grade levels required for postsecondary adult career and technical students to complete this program are: Mathematics 10, Language 11, and Reading 11. These grade level numbers correspond to a grade equivalent score obtained on a state designated basic skills examination.

Adult students with disabilities, as defined in Section 1004.02(7), Florida Statutes, may be exempted from meeting the Basic Skills requirements (Rule 6A-10.040). Students served in exceptional student education (except gifted) as defined in s. 1003.01(3)(a), F.S., may also be exempted from meeting the Basic Skills requirement. Each school district and Florida College must adopt a policy addressing procedures for exempting eligible students with disabilities from the Basic Skills requirement as permitted in Section 1004.91(3), F.S.

Students who possess a college degree at the Associate of Applied Science level or higher; who have completed or are exempt from the college entry-level examination; or who have passed a state, national, or industry licensure exam are exempt from meeting the Basic Skills requirement (Rule 6A-10.040, F.A.C.) Exemptions from state, national or industry licensure are limited to the certifications listed on the Basic Skills and Licensure Exemption List which may be accessed from the CTE Program Resources page.

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: **Central Sterile Processing Technology**
Program Type: **Career Preparatory**
Career Cluster: **Health Science**

Career Certificate Program	
Program Number	H170222
CIP Number	0351089902
Grade Level	30,31
Standard Length	650 hours
Teacher Certification	Refer to the **Program Structure** section.
CTSO	HOSA: Future Health Professionals
SOC Codes (all applicable)	31-9099 Healthcare Support Workers, All Other 31-9093 Medical Equipment Preparers
Basic Skills Level	Mathematics: 9 Language: 9 Reading: 9

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 Health Science 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 Health Science career cluster.

This program is designed to prepare students for employment as supervisors, central supply, central supply workers, ambulatory surgery processors, surgical instrument processors, gastrointestinal (GI) flexible endoscope reprocessors, case cart technicians, inventory technicians, processing technicians, stock clerks: stock room or warehouse, sterilizers, central service technicians SOC Code 31-9093 (medical equipment preparers).

The content includes but is not limited to central services departmental organization and function; basic anatomy, physiology, microbiology and chemistry related to central service activities; quality assurance; infection control and isolation techniques, principles of safety; principles, methods and controls of sterilization processes; cleaning, processing, packaging, distributing, storing, and inventory control of sterile goods, instruments,

trays, and equipment; medical terminology; surgical instrumentation; basic computer skills, interpersonal and job seeking skills, fundamentals of communication, case cart management, laparoscopic specialty, orthopedic specialty, flexible scope processing , shift supervisory skills and procurement of supplies and equipment.

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 2 occupational completion points.

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	HSC0003	Basic Healthcare Worker	CENT SERV TECH 7 G OPR REG NURSE 7 G SURG TECH 7 G	90 hours	31-9099
B	STS0019	Central Sterile Service Materials Management		150 hours	31-9093
C	STS0013	Central Sterile Processing Technician		410 hours	31-9093

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 of the healthcare delivery system and health occupations.
02.0 Demonstrate the ability to communicate and use interpersonal skills effectively.
03.0 Demonstrate legal and ethical responsibilities.
04.0 Demonstrate an understanding of and apply wellness and disease concepts.
05.0 Recognize and practice safety and security procedures.
06.0 Recognize and respond to emergency situations.
07.0 Recognize and practice infection control procedures.
08.0 Demonstrate an understanding of information technology applications in healthcare.
09.0 Demonstrate employability skills.
10.0 Demonstrate knowledge of blood borne diseases, including HIV/AIDS.
11.0 Apply basic math and science skills.
12.0 Describe supply distribution systems and the principles of inventory control.
13.0 Demonstrate the ability to recall and dispose of or reprocess sterile supplies.
14.0 Identify fundamentals of procurement skills.
15.0 Demonstrate language arts knowledge and skills.
16.0 Solve problems using critical thinking skills, creativity and innovation.
17.0 Describe the roles within teams, work units, departments, organizations, inter-organizational systems, and the larger environment.
18.0 Demonstrate leadership and teamwork skills needed to accomplish team goals and objectives.
19.0 Demonstrate the roles and responsibilities of the central supply worker.
20.0 Recognize basic principles of microbiology.
21.0 Interpret and apply medical terminology and anatomical terms as they relate to equipment and supplies issued by central service personnel.
22.0 Describe how central service is involved in controlling infections in hospitals.
23.0 Explain the purpose of Occupational Safety and Health Act.
24.0 Receive, decontaminate, clean, prepare, disinfect and sterilize reusable items.
25.0 Demonstrate the use of sterilization process monitors, including temperature and frequency of appropriate chemical indicators and bacterial spore tests for all sterilizers.
26.0 Demonstrate the ability to identify and select appropriate instrumentation or equipment that meets the needs of the specialty.

Florida Department of Education
Student Performance Standards

Program Title: Central Sterile Processing Technology
Career Certificate Program Number: H170220

The **Basic Health Care Worker (HSC0003)** is referred to as the **Health Science Core** and is the first OCP in the majority of the Career Certificate Program health science programs. Secondary and Postsecondary students completing the health science core will not have to repeat the core in any other health science program in which it is a part. When the recommended sequence is followed, the structure allows students to complete at specified points for employment or remain for advanced training or cross-training.

Career Certificate Program Course Number: HSC0003
Occupational Completion Point: A
Basic Healthcare Worker – 90 Hours – SOC Code 31-9099

To ensure consistency whenever these courses are offered, the health science core standards (1-11) have been placed in a separate document.

Course Number: STS0019
Occupational Completion Point: B
Central Sterile Service Materials Management – 150 Hours – SOC Code 31-9093

12.0	Describe supply distribution systems and the principles of inventory control. -- The student will be able to:
12.01	Define the benefits of inventory control.
12.02	Describe the methods of inventory control.
12.03	Compare the advantages and disadvantages of each distribution methods.
12.04	Process a requisition marked "stat" - locate article, price, etc.
12.05	Demonstrate the process of stock rotation.
12.06	Identify the uses of sterility maintenance covers.
12.07	Describe the processes for loaner instrumentation and equipment.
12.08	Describe the process of product evaluation.
12.09	Describe the procedures for tracking the usage of medical/surgical supplies, patient care equipment and specialty carts.
12.10	Describe the procedures for documenting supply and equipment charges.

	12.11 Demonstrate the methods of case cart preparation and the utilization of preference cards.
13.0	Demonstrate the ability to recall and dispose of or reprocess sterile supplies. -- The student will be able to:
	13.01 Explain the factors that affect how long a package can be considered safe for use.
	13.02 Explain the differences between event related, date related, and manufacturer recommendations.
	13.03 State the methods of determining expiration dates.
	13.04 List the steps in reprocessing outdated hospital packaged items.
	13.05 List conditions that would make a product unsafe for use.
	13.06 Describe the use of tamper evident seals.
	13.07 Describe the methods of reprocessing.
	13.08 Identify standards and facility policies on reprocessing of single use items.
	13.09 Describe the process of recall for medical/surgical supplies.
14.0	Identify fundamentals of procurement skills. -- The student will be able to:
	14.01 Describe procurement system.
	14.02 Communicate with other hospitals, facilities, or company representatives for procurement of supplies and equipment.
	14.03 Describe several different methods of procurement of supplies.
	14.04 Describe basics of receiving items, including documentation of receiving and release to other facilities.

Course Number: STS0013 **Occupational Completion Point: C** **Central Sterile Processing Technician– 410 Hours – SOC Code 31-9093**	
15.0	Demonstrate language arts knowledge and skills. – The students will be able to:
	15.01 Locate, comprehend and evaluate key elements of oral and written information.
	15.02 Draft, revise, and edit written documents using correct grammar, punctuation and vocabulary.
	15.03 Present information formally and informally for specific purposes and audiences.
16.0	Solve problems using critical thinking skills, creativity and innovation. – The students will be able to:

	16.01 Employ critical thinking skills independently and in teams to solve problems and make decisions.
	16.02 Employ critical thinking and interpersonal skills to resolve conflicts.
	16.03 Identify and document workplace performance goals and monitor progress toward those goals.
	16.04 Conduct technical research to gather information necessary for decision-making.
17.0	Describe the roles within teams, work units, departments, organizations, inter-organizational systems, and the larger environment. – The students will be able to:
	17.01 Describe the nature and types of business organizations.
	17.02 Explain the effect of key organizational systems on performance and quality.
	17.03 List and describe quality control systems and/or practices common to the workplace.
	17.04 Explain the impact of the global economy on business organizations.
18.0	Demonstrate leadership and teamwork skills needed to accomplish team goals and objectives. – The students 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.
	18.05 Analyze attributes and attitudes of an effective leader.
	18.06 Recognize factors and situations that may lead to conflict.
	18.07 Demonstrate effective techniques for managing team conflict.
19.0	Demonstrate the roles and responsibilities of the central supply worker. -- The student will be able to:
	19.01 Describes professional standards related to personal hygiene and dress codes.
	19.02 Identifies relevant federal, state, and local guidelines, standards and regulations.
	19.03 Describes the function and workflow of the sterile processing department.
	19.04 Apply ergonomic considerations and appropriate body mechanics for lifting, turning, pulling, pushing, and reaching.
	19.05 Apply policies and procedures related to sterile processing functions (safety, infection control, disaster control, disaster, MSDS, incident reports, etc.).

	19.06 Describes importance of following device, equipment, instrument or supply manufacturer's instructions for processing, operation, and troubleshooting.
20.0	Recognize basic principles of microbiology. -- The student will be able to:
	20.01 Describe terms related to microbiology and the control of microorganisms in central sterile processing departments.
	20.02 Identify the main categories of microorganisms.
	20.03 Describe the life functions of microorganisms.
	20.04 Describe conditions affecting the growth of bacteria.
	20.05 Describe special methods used to destroy harmful microorganisms on fomites in the environment.
	20.06 List the helpful microorganisms.
	20.07 Describe how the body controls the growth of pathogenic microorganisms.
	20.08 Identify pathogenic microorganisms commonly found in central service departments.
21.0	Interpret and apply medical terminology and anatomical terms as they relate to equipment and supplies issued by central service personnel. -- The student will be able to:
	21.01 Identify word elements for medical terms.
	21.02 Relate anatomical concepts to orthopedic devices and other supplies and equipment issued by the CS Department.
22.0	Describe how central service is involved in controlling infections in hospitals. -- The student will be able to:
	22.01 Describe nosocomial infections.
	22.02 Describe the types of isolation.
	22.03 Describe the organization and functions of CS.
	22.04 Describe the CS responsibilities for infection control and traffic patterns when in the operating room and other departments.
	22.05 Identify proper storage and transportation standards for supplies in the facility (receivables, sterile, clean, or contaminated).
	22.06 Describe the organizational patterns of health care facilities.
23.0	Explain the purpose of Occupational Safety and Health Act. -- The student will be able to:
	23.01 Describe how employees are protected under OSHA.
	23.02 Describe potential workplace hazards in CS. (wet floors, chemicals, fumes, gases, steam, electrical outlets, body fluids, microorganisms, sharps, and medical wastes).

	23.03	Describe the role preventive maintenance plays in patient and personnel safety in the hospital.
	23.04	Explain the purpose of Florida's "Right to Know" law and its provisions.
	23.05	Describe the protocol for personal injury including the completion of incident/occupancy reports and follow up.
	23.06	Implement appropriate regulatory and accreditation agency patient safety guidelines.
24.0	Receive, decontaminate, clean, prepare, disinfect and sterilize reusable items -- The student will be able to:	
	24.01	Describe the importance of thorough cleaning to the overall objectives of making items safe for patient use.
	24.02	Explain the importance of following manufacturers' instructions in cleaning each item for reprocessing.
	24.03	Describe the levels of disinfection, the cleaning process and methods of disinfection for the environment, instruments, syringes, needles, rubber goods and equipment.
	24.04	Describe the mechanisms of action for each disinfection method including ultrasonic machines and washer/sterilizers.
	24.05	Describe the strategies for managing difficult to control microorganisms that require isolation techniques and specialized decontamination methods including Creutzfeldt - Jakob disease (CJD).
	24.06	Describe the factors affecting decontamination (water temperature, loading procedures, water impurities, opening and disassembling).
	24.07	Distinguish correct reprocessing policies related to single use, limited use, and reusable items.
	24.08	Describe decontamination methods for drill systems and batteries.
	24.09	Describe the function of case cart washers, and alternative methods of cleaning.
	24.10	Describe the need for testing and monitoring all decontamination machines for proper function and cleaning agents.
	24.11	Explain the importance of using correct chemicals for cleaning in regards to water quality, PH, filters, softeners, enzymes, lubricants.
	24.12	Describe the types, characteristics, and uses of chemicals, solutions, and gases utilized for decontamination. (detergents, disinfectants, enzymatics, germicides).
	24.13	Demonstrate the decontamination process for instruments, syringes, needles, rubber goods and equipment.
	24.14	Demonstrate flexible endoscopic leak testing, decontamination, and reprocessing.
	24.15	Demonstrates decontamination and proper handling of rigid scopes.
	24.16	Describes the methods of high level disinfection including manual and automated endoscopic reprocessor (AER).
	24.17	Describe the types of sterilizers and methods of sterilization.
	24.18	Describe the primary objectives in selecting the correct packaging materials for both the individual item and the sterilization method

	to be used.
24.19	Describe the principles of packaging.
24.20	Describe the characteristics of packaging materials in relationship to sterilization methods.
24.21	Describe the principles of linen pack and tray construction/assembly.
24.22	Describe the recommended labeling methodologies.
24.23	Identify basic surgical procedure trays, instruments, supplies, and accessories.
24.24	Explain the principles utilized when loading different kinds of wrapped packs or packages into a sterilizer to be assured of sterilant penetration.
24.25	Recognize equipment malfunction and list corrective actions.
24.26	Demonstrate the wrapping of procedures trays, instruments and other supplies.
24.27	Demonstrate loading of different kinds of wrapped packs or packages into a sterilizer to be assured of sterilant penetration.
24.28	Describe how sterile supplies should be handled.
24.29	Demonstrate handling, transportation and storage of clean, sterile and nonsterile supplies and equipment.
25.0	Demonstrate the use of sterilization process monitors, including temperature and frequency of appropriate chemical indicators and bacterial spore tests for all sterilizers. -- The student will be able to:
25.01	Describe the types of sterilization, sterilization cycles, and parameters for each.
25.02	Describe the importance of the manufacturer's recommendations for the safe operation of each type of sterilizer.
25.03	Describe the methods of sterilization monitoring.
25.04	Demonstrate the process of preparing and documenting the sterilizer load contents for each sterilizer correctly according to the manufacturer's recommendations.
25.05	Demonstrate the operation, testing, and monitoring of sterilizers.
25.06	Demonstrate the ability to interpret and document monitoring devices, printouts, and charts accurately for each sterilization system utilized.
25.07	Identify the standards for, and facility policy regarding, frequency of monitoring for all sterilizers.
26.0	Demonstrate the ability to identify and select appropriate instrumentation or equipment that meets the needs of the specialty. -- The student will be able to:
26.01	Describe instrument terminology and identify the anatomy of surgical instruments (jaws, shanks, box locks, rings, etc.).
26.02	Describe the types and functions of instruments.

26.03	Describe the types of instrument construction.
26.04	Demonstrate appropriate techniques for inspection and testing of instruments.
26.05	Identify instrumentation and equipment by name and usage.
26.06	Correctly label instrumentation and equipment.
26.07	Demonstrate the methods of instrument identification, marking, and tracking of use.
26.08	Demonstrate the assembly of various instrument sets and specialty equipment.
26.09	Demonstrate the process regarding the manufacturer’s recommendations for instrument and equipment care including handling, operation, maintenance, and troubleshooting.

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

This program meets the Department of Health's education requirements for HIV/AIDS, Domestic Violence and Prevention of Medical Errors. Although not a requirement for initial licensure, it is a requirement for renewal, therefore the instructor may provide a certificate for renewal purposes to the student verifying these requirements have been met.

If students in this program are seeking a licensure, certificate or registration through the Department of Health, please refer to 456.0635 F.S. for more information on disqualification for a license, certificate, or registration through the Department of Health.

Inquiries about a voluntary certification for sterile processing and distribution may be made to:

International Association of Hospital Central Service Materiel Management (IAHCSMM)
213 West Institute Place, Suite 307, Chicago, IL 60610
Toll Free: 800-962-8274

OR

Certification Board for Sterile Processing and Distribution, Inc. (CBSPD)

2 Industrial Park Road-Suite 3
Alpha, NJ 08865

Outcomes 01-11 are referred to as the Health Science Core and do not have to be completed if the student has previously completed the Core in another health occupations programs at any level. The Core should be taken first or concurrently with the first course in the program. Following the successful completion of the core, the student is eligible to take the National Health Care Foundation Skill Standards Assessment with instructor approval and the completion of a portfolio.

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)

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.

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.

Basic Skills

In a Career Certificate Program offered for 450 hours or more, in accordance with Rule 6A-10.040, F.A.C., the minimum basic skills grade levels required for postsecondary adult career and technical students to complete this program are: Mathematics 9, Language 9, and Reading 9. These grade level numbers correspond to a grade equivalent score obtained on a state designated basic skills examination.

Adult students with disabilities, as defined in Section 1004.02(7), Florida Statutes, may be exempted from meeting the Basic Skills requirements (Rule 6A-10.040). Students served in exceptional student education (except gifted) as defined in s. 1003.01(3)(a), F.S., may also be exempted from meeting the Basic Skills requirement. Each school district and Florida College must adopt a policy addressing procedures for exempting eligible students with disabilities from the Basic Skills requirement as permitted in Section 1004.91(3), F.S.

Students who possess a college degree at the Associate of Applied Science level or higher; who have completed or are exempt from the college entry-level examination; or who have passed a state, national, or industry licensure exam are exempt from meeting the Basic Skills requirement (Rule 6A-10.040, F.A.C.) Exemptions from state, national or industry licensure are limited to the certifications listed on the Basic Skills and Licensure Exemption List which may be accessed from the CTE Program Resources page.

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: **Phlebotomy**
Program Type: **Career Preparatory**
Career Cluster: **Health Science**

Career Certificate Program	
Program Number	H170302
CIP Number	0351100901
Grade Level	30, 31
Standard Length	165 hours
Teacher Certification	Refer to the **Program Structure** section.
CTSO	HOSA: Future Health Professionals
SOC Codes (all applicable)	31-9097 Phlebotomists 31-9099 Healthcare Support Workers, All Other
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 the Health Science 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 Health Science career cluster.

The purpose of this program is to prepare students for employment as phlebotomists SOC Code 31-9097 Phlebotomists, All other.

The content includes but is not limited to communication, leadership, human relations, and employability skills; performance of safe and efficient work practices in obtaining adequate and correct blood specimens by capillary or venipuncture on adults, children and neonates; maintaining the integrity of the specimen in relation to the test to be performed; preparing blood smears; labeling specimens accurately and completely; collecting timed specimens; promoting the comfort and well-being of the patient while performing blood collecting duties; observing safety policies and procedures; medical terminology; emergency procedures including CPR (Heartsaver); delivering a variety of clinical specimens to the clinical laboratory; sorting and recording specimens received in the laboratory; centrifuging specimens and preparing aliquots of samples according to the designated protocol; distributing samples to appropriate laboratory sections; and preparing collection trays for specimen procurement.

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 2 occupational completion points.

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	HSC0003	Basic Healthcare Worker	LAB TECH @7 7G MED ASST 7G PARAMEDIC @7 7G REG NURSE 7 G RESP THER @7 7G PRAC NURSE @7 %7%G *(Must be a Registered Nurse) TEC MED !7 G	90 hours	31-9099
B	MEA0520	Phlebotomist		75 hours	31-9097

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 of the healthcare delivery system and health occupations.
02.0 Demonstrate the ability to communicate and use interpersonal skills effectively.
03.0 Demonstrate legal and ethical responsibilities.
04.0 Demonstrate an understanding of and apply wellness and disease concepts.
05.0 Recognize and practice safety and security procedures.
06.0 Recognize and respond to emergency situations.
07.0 Recognize and practice infection control procedures.
08.0 Demonstrate an understanding of information technology applications in healthcare.
09.0 Demonstrate employability skills.
10.0 Demonstrate knowledge of blood borne diseases, including HIV/AIDS.
11.0 Apply basic math and science skills.
12.0 Demonstrate accepted professional, communication and interpersonal skills.
13.0 Discuss phlebotomy in relation to the health care setting.
14.0 Identify the anatomic structure and function of body systems in relation to services performed by phlebotomist.
15.0 Recognize and identify collection reagents supplies, equipment and interfering chemical substances.
16.0 Demonstrate skills and knowledge necessary to perform phlebotomy.
17.0 Practice infection control following standard precautions.
18.0 Practice accepted procedures of transporting, accessioning and processing specimens.
19.0 Practice quality assurance and safety.

Florida Department of Education
Student Performance Standards

Program Title: Phlebotomy
Career Certificate Program Number: H170302

The **Basic Health Care Worker (HSC0003)** is referred to as the **Health Science Core** and is the first OCP in the majority of the Career Certificate Program health science programs. Secondary and Postsecondary students completing the health science core will not have to repeat the core in any other health science program in which it is a part. When the recommended sequence is followed, the structure allows students to complete at specified points for employment or remain for advanced training or cross-training.

Career Certificate Program Course Number: HSC0003
Occupational Completion Point: A
Basic Healthcare Worker – 90 Hours – SOC Code 31-9099

To ensure consistency whenever these courses are offered, the health science core standards (1-11) have been placed in a separate document.

Course Number: MEA0520 **Occupational Completion Point: B** **Phlebotomist – 75 Hours – SOC Code 31-9097**	
12.0	Demonstrate accepted professional, communication, and interpersonal skills. – The student will be able to:
12.01	Demonstrate the appropriate professional behavior of a phlebotomist.
12.02	Explain to the patient the procedure to be used in specimen collection.
12.03	Explain in detail the importance of identifying patients correctly when drawing blood.
12.04	Describe the scope of practice (job skills and duties) for a phlebotomist.
12.05	List and describe professional organizations that provide accreditation, certification, and licensure to phlebotomists and phlebotomy programs.
12.06	Explain the importance of continuing education in relation to certification to maintain competency and skills.
13.0	Discuss phlebotomy in relation to the health care setting. – The student will be able to:
13.01	List, classify and discuss various departments and services within the health care setting in which the phlebotomist must interact with to obtain laboratory specimens from patients.
13.02	Identify the major departments/sections with the clinical laboratory, the major types of procedures run in each department/section, and their specimen requirements.

	13.03 Describe roles of the major classifications of clinical laboratory personnel (i.e., pathologist, chief/administrative technologist, CLS, MLS, MLT, MT, phlebotomist, lab assistant, etc.).
14.0	Identify the anatomic structure and function of body systems in relation to services performed by phlebotomist. – The student will be able to:
	14.01 Describe and define major body systems with emphasis on the circulatory system.
	14.02 List and describe the main superficial veins used in performing venipuncture.
	14.03 Locate the most appropriate sites(s) for capillary and venipuncture.
	14.04 Describe the function of the following blood components: erythrocytes, thrombocytes, leukocytes and plasma.
	14.05 Compare and contrast between serum and plasma as it relates to blood collection.
	14.06 Discuss hemostasis as it relates to blood collection.
15.0	Recognize and identify collection reagents supplies, equipment and interfering chemical substances. – The student will be able to:
	15.01 Identify and discuss proper use of appropriate types of equipment needed to collect various clinical laboratory blood specimens by venipuncture.
	15.02 Explain the special precautions and types of equipment needed to collect blood from the pediatric patient.
	15.03 Identify and discuss proper use of supplies used in collecting short-draw specimens or difficult draws.
	15.04 Identify and discuss the proper use of the various types of anticoagulants, preservatives and gels used in blood collection and the vacuum tube color-codes for these additives.
	15.05 Describe the types of specimens that are analyzed in the clinical laboratory and the phlebotomist's role in collecting and/or transporting these specimens to the laboratory.
	15.06 Describe substances potentially encountered during phlebotomy which can interfere in analysis of blood constituents.
	15.07 Define and utilize correct medical terminology and metric measurement needed for specimen collection.
16.0	Demonstrate skills and knowledge necessary to perform phlebotomy. – The student will be able to:
	16.01 Follow approved procedure for completing a laboratory requisition form.
	16.02 Recognize a properly completed requisition.
	16.03 Demonstrate knowledge of established protocol for patient and specimen identification.
	16.04 Discuss appropriate methods for facilitating and preparing the patient for capillary and venipuncture collection.
	16.05 List appropriate antiseptic agents useful in preparing sites for capillary and venipuncture.
	16.06 Perform venipuncture by evacuated tube, butterfly and syringe systems, demonstrating appropriate use of supplies, proper handling

	of equipment and specimens, and appropriate patient care.
16.07	Describe the correct order of draw.
16.08	Describe the use of barcoding systems used for specimen collection.
16.09	Convey an understanding of capillary puncture using appropriate supplies and techniques for both adults and pediatric patients.
16.10	Describe the most common complications associated with capillary and venipuncture, their causes, prevention and treatment.
16.11	Recognize and respond to possible adverse patient reactions such as allergies, convulsions, syncope, light headedness, vomiting, and nerve involvement.
16.12	Perform appropriate procedures for disposing of used or contaminated capillary and venipuncture supplies.
16.13	Perform appropriate techniques for making a peripheral blood smear for hematologic evaluation.
16.14	Demonstrate the proper procedure for collecting blood cultures.
16.15	Discuss the effects of hemolysis and methods of prevention.
16.16	Demonstrate a working understanding of how age and weight of patients impacts the maximum amount of blood that can be safely drawn.
17.0	Practice infection control following standard precautions. – The student will be able to:
17.01	Define the term “hospital acquired infection”.
17.02	Describe and practice procedures for infection prevention including hand washing skills.
17.03	Discuss transmission based precautions.
17.04	Identify potential routes of infection and their complications.
18.0	Practice accepted procedures of transporting, accessioning and processing specimens. – The student will be able to:
18.01	Follow the approved procedure for preparation and processing (e.g. - centrifugation, separation, aliquoting, labeling, and storage) of serum, plasma, urine, sputum, stool, and wound culture specimens.
18.02	Demonstrate knowledge of accessioning procedures.
18.03	Describe the significance of time constraints for specimen collection, transporting and delivery.
18.04	Describe routine procedures for transporting and processing specimens including DOT packaging requirements.
19.0	Practice quality assurance and safety. – The student will be able to:
19.01	Distinguish and perform procedures which ensure reliability of test results when collecting blood specimens.

19.02	Practice appropriate patient safety.
19.03	Practice safety in accordance with OSHA (State & Federal guidelines) for chemical, biological, and PPE established procedures including proper disposal of sharps and biohazardous materials.
19.04	Follow documentation procedures for work related accidents.
19.05	Implement appropriate Joint Commission patient safety goals and other accrediting/regulatory agency guidelines.

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

This program meets the Department of Health's education requirements for HIV/AIDS, Domestic Violence and Prevention of Medical Errors. Although not a requirement for initial licensure, it is a requirement for renewal, therefore the instructor may provide a certificate for renewal purposes to the student verifying these requirements have been met.

If students in this program are seeking a licensure, certificate or registration through the Department of Health, please refer to 456.0635 F.S. for more information on disqualification for a license, certificate, or registration through the Department of Health.

A voluntary national certification is available through an exam offered by:

The National Health Career Association
7500 West 160th Street
Stilwell, Kansas 66085
PH: 800-499-9092 x8223 Fax: 973-644-4797

To be eligible students must:

1. Have a High School Diploma or equivalency and have completed an NHA approved training program.

OR

2. Have a High School Diploma or equivalency and have worked in the field for a minimum of one year.

Although there is no state licensure required for phlebotomists, graduates with required amounts of work experience may obtain certification from national credentialing agencies such as the American Society of Clinical Pathologists (ASCP) and the American Society of Phlebotomy Technicians (ASPT), and American Medical Technologists (AMT).

Outcomes 01-11 are referred to as the Health Science Core and do not have to be completed if the student has previously completed the Core in another health occupations program at any level. The Core should be taken first or concurrently with the first course in the program. Following the successful completion of the core, the student is eligible to take the National Health Care Foundation Skill Standards Assessment with instructor approval and the completion of a portfolio.

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)

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.

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: **Medical Laboratory Assisting**
Program Type: **Career Preparatory**
Career Cluster: **Health Science**

Career Certificate Program	
Program Number	H170306
CIP Number	0351080201
Grade Level	30, 31
Standard Length	465 hours
Teacher Certification	Refer to the **Program Structure** section.
CTSO	HOSA: Future Health Professionals
SOC Codes (all applicable)	31-9097 Phlebotomists 29-2012 Medical and Clinical Laboratory Technicians 31-9099 Healthcare Support Workers, All Other
Basic Skills Level	Mathematics: 9 Language: 11 Reading: 11

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 Health Science 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 Health Science career cluster.

The purpose of this program is to prepare students for employment as medical laboratory aides 29-2012 Medical and Clinical Laboratory Technicians

The content includes but is not limited to communication, interpersonal and professional skills, appropriate scientific principles of microbiology, chemistry, physics, anatomy and physiology integrated into skill development and clinical learning.

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 3 occupational completion points.

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	HSC0003	Basic Healthcare Worker	LAB TECH @7 7G TEC MED !7 G	90 hours	31-9099
B	MEA0520	Phlebotomist	LAB TECH @7 7G MED ASST 7G PARAMEDIC @7 7G REG NURSE 7 G RESP THER @7 7G PRAC NURSE @7 %7%G *(Must be a Registered Nurse) TEC MED !7 G	75 hours	31-9097
C	MEA0560	Medical Lab Assistant	LAB TECH @7 7G TEC MED !7 G	300 hours	29-2012

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 of the healthcare delivery system and health occupations.
02.0 Demonstrate the ability to communicate and use interpersonal skills effectively.
03.0 Demonstrate legal and ethical responsibilities.
04.0 Demonstrate an understanding of and apply wellness and disease concepts.
05.0 Recognize and practice safety and security procedures.
06.0 Recognize and respond to emergency situations.
07.0 Recognize and practice infection control procedures.
08.0 Demonstrate an understanding of information technology applications in healthcare.
09.0 Demonstrate employability skills.
10.0 Demonstrate knowledge of blood borne diseases, including HIV/AIDS.
11.0 Apply basic math and science skills.
12.0 Demonstrate accepted professional, communication and interpersonal skills.
13.0 Discuss phlebotomy in relation to the health care setting.
14.0 Identify the anatomic structure and function of body systems in relation to services performed by phlebotomist.
15.0 Recognize and identify collection reagents supplies, equipment and interfering chemical substances.
16.0 Demonstrate skills and knowledge necessary to perform phlebotomy.
17.0 Practice infection control following standard precautions.
18.0 Practice accepted procedures of transporting, accessioning and processing specimens.
19.0 Practice quality assurance and safety.
20.0 Identify the federal and state laws which serve to regulate the provision of laboratory services, including CLIA, Florida Statutes, and Florida Administrative Code.
21.0 Demonstrate a basic understanding of ICD and CPT coding Systems.
22.0 Demonstrate basic knowledge of microbiology.
23.0 Demonstrate basic knowledge of urinalysis.
24.0 Demonstrate basic knowledge of clinical chemistry.
25.0 Demonstrate basic knowledge of hematology.
26.0 Demonstrate basic knowledge of and perform clinical laboratory Point of Care (POC) testing (Waived).
27.0 Demonstrate basic knowledge of and perform Point of Care (POC) Testing using CLIA approved Waived instrumentation.
28.0 Successfully complete learning experiences in the clinical setting.

Florida Department of Education
Student Performance Standards

Program Title: Medical Laboratory Assisting
Career Certificate Program Number: H170306

The **Basic Health Care Worker (HSC0003)** is referred to as the **Health Science Core** and is the first OCP in the majority of the Career Certificate Program health science programs. Secondary and Postsecondary students completing the health science core will not have to repeat the core in any other health science program in which it is a part. When the recommended sequence is followed, the structure allows students to complete at specified points for employment or remain for advanced training or cross-training.

Career Certificate Program Course Number: HSC0003
Occupational Completion Point: A
Basic Healthcare Worker – 90 Hours – SOC Code 31-9099

To ensure consistency whenever these courses are offered, the health science core standards (1-11) have been placed in a separate document.

Course Number: MEA0520
Occupational Completion Point: B
Phlebotomist – 75 Hours – SOC Code 31-9097

12.0	Demonstrate accepted professional, communication, and interpersonal skills. – The student will be able to:
12.01	Demonstrate the appropriate professional behavior of a phlebotomist.
12.02	Explain to the patient the procedure to be used in specimen collection.
12.03	Explain in detail the importance of identifying patients correctly when drawing blood.
12.04	Describe the scope of practice (job skills and duties) for a phlebotomist.
12.05	List and describe professional organizations that provide accreditation, certification, and licensure to phlebotomists and phlebotomy programs.
12.06	Explain the importance of continuing education in relation to certification to maintain competency and skills.
13.0	Discuss phlebotomy in relation to the health care setting. – The student will be able to:
13.01	List, classify and discuss various departments and services within the health care setting in which the phlebotomist must interact with to obtain laboratory specimens from patients.
13.02	Identify the major departments/sections with the clinical laboratory, the major types of procedures run in each department/section, and their specimen requirements.

	13.03 Describe roles of the major classifications of clinical laboratory personnel (i.e., pathologist, chief/administrative technologist, CLS, MLS, MLT, MT, phlebotomist, lab assistant, etc.).
14.0	Identify the anatomic structure and function of body systems in relation to services performed by phlebotomist. – The student will be able to:
	14.01 Describe and define major body systems with emphasis on the circulatory system.
	14.02 List and describe the main superficial veins used in performing venipuncture.
	14.03 Locate the most appropriate sites(s) for capillary and venipuncture.
	14.04 Describe the function of the following blood components: erythrocytes, thrombocytes, leukocytes and plasma.
	14.05 Compare and contrast between serum and plasma as it relates to blood collection.
	14.06 Discuss hemostasis as it relates to blood collection.
15.0	Recognize and identify collection reagents supplies, equipment and interfering chemical substances. – The student will be able to:
	15.01 Identify and discuss proper use of appropriate types of equipment needed to collect various clinical laboratory blood specimens by venipuncture.
	15.02 Explain the special precautions and types of equipment needed to collect blood from the pediatric patient.
	15.03 Identify and discuss proper use of supplies used in collecting short-draw specimens or difficult draws.
	15.04 Identify and discuss the proper use of the various types of anticoagulants, preservatives and gels used in blood collection and the vacuum tube color-codes for these additives.
	15.05 Describe the types of specimens that are analyzed in the clinical laboratory and the phlebotomist's role in collecting and/or transporting these specimens to the laboratory.
	15.06 Describe substances potentially encountered during phlebotomy which can interfere in analysis of blood constituents.
	15.07 Define and utilize correct medical terminology and metric measurement needed for specimen collection.
16.0	Demonstrate skills and knowledge necessary to perform phlebotomy. – The student will be able to:
	16.01 Follow approved procedure for completing a laboratory requisition form.
	16.02 Recognize a properly completed requisition.
	16.03 Demonstrate knowledge of established protocol for patient and specimen identification.
	16.04 Discuss appropriate methods for facilitating and preparing the patient for capillary and venipuncture collection.
	16.05 List appropriate antiseptic agents useful in preparing sites for capillary and venipuncture.
	16.06 Perform venipuncture by evacuated tube, butterfly and syringe systems, demonstrating appropriate use of supplies, proper handling

	of equipment and specimens, and appropriate patient care.
16.07	Describe the correct order of draw.
16.08	Describe the use of barcoding systems used for specimen collection.
16.09	Convey an understanding of capillary puncture using appropriate supplies and techniques for both adults and pediatric patients.
16.10	Describe the most common complications associated with capillary and venipuncture, their causes, prevention and treatment.
16.11	Recognize and respond to possible adverse patient reactions such as allergies, convulsions, syncope, light headedness, vomiting, and nerve involvement.
16.12	Perform appropriate procedures for disposing of used or contaminated capillary and venipuncture supplies.
16.13	Perform appropriate techniques for making a peripheral blood smear for hematologic evaluation.
16.14	Demonstrate the proper procedure for collecting blood cultures.
16.15	Discuss the effects of hemolysis and methods of prevention.
16.16	Demonstrate a working understanding of how age and weight of patients impacts the maximum amount of blood that can be safely drawn.
17.0	Practice infection control following standard precautions. – The student will be able to:
17.01	Define the term hospital acquired infection.
17.02	Describe and practice procedures for infection prevention including hand washing skills.
17.03	Discuss transmission based precautions.
17.04	Identify potential routes of infection and their complications.
18.0	Practice accepted procedures of transporting, accessioning and processing specimens. – The student will be able to:
18.01	Follow the approved procedure for preparation and processing (e.g. - centrifugation, separation, aliquoting, labeling, and storage) of serum, plasma, urine, sputum, stool, and wound culture specimens.
18.02	Demonstrate knowledge of accessioning procedures.
18.03	Describe the significance of time constraints for specimen collection, transporting and delivery.
18.04	Describe routine procedures for transporting and processing specimens including DOT packaging requirements.
19.0	Practice quality assurance and safety. – The student will be able to:
19.01	Distinguish and perform procedures which ensure reliability of test results when collecting blood specimens.

19.02	Practice appropriate patient safety.
19.03	Practice safety in accordance with OSHA (State & Federal guidelines) for chemical, biological, and PPE established procedures including proper disposal of sharps and biohazardous materials.
19.04	Follow documentation procedures for work related accidents.
19.05	Implement appropriate Joint Commission patient safety goals and other accrediting/regulatory agency guidelines.

Course Number: MEA0560 Occupational Completion Point: C Medical Lab Assistant – 300 Hours – SOC Code 29-2012	
20.0	Identify the federal and state laws which serve to regulate the provision of laboratory services, including CLIA, Florida Statutes, and Florida Administrative Code. – The student will be able to:
20.01	Explain the CLIA test complexity model and describe the characteristics required for FDA classification of a test as waived.
20.02	Explain the categories of testing personnel established by both CLIA and Florida regulations and describe the basic educational and/or experiential qualifications for each category.
20.03	Explain the differences in requirements for a physician practice laboratory, a hospital laboratory and an independent clinical laboratory.
20.04	Describe Alternate Site Testing requirements as they apply to hospitals in Florida and compare and contrast these with the requirements for CLIA waived testing and Provider Performed Microscopy. Apply the concepts of Point-of-Care or Near Patient testing to these requirements.
20.05	Demonstrate an understanding of the concepts of “scope of practice”, “professional judgment”, and “duty/obligation to report”.
21.0	Demonstrate a basic understanding of ICD and CPT coding Systems. – The student will be able to:
21.01	Explain the characteristics of the International Classification of Disease System (ICD), and its important function in substantiating the clinical record.
21.02	Explain the characteristics of Healthcare Common Procedure Coding System (HCPCS), including the two primary levels of codes, and its function in reporting medical procedures including laboratory testing.
21.03	Explain the differences between analyte, method, and unlisted procedure CPT codes and the hierarchy for selecting CPT codes for reporting laboratory tests.
21.04	Describe the concept of medical necessity as set forth in National or Local coverage Decisions (NCD and LCD) for lab testing under the Medicare Program.
21.05	Review the concept of congressionally –mandated screening tests under the Medicare Program.
22.0	Demonstrate basic knowledge of microbiology. -- The student will be able to:
22.01	Perform techniques of microbiology related to disinfection techniques.
22.02	Discuss techniques of microbiology related to isolation techniques.

	22.03 Perform techniques of microbiology related to sterilization techniques.
	22.04 Perform techniques of microbiology related to slide preparation.
	22.05 Describe the basic operation and principles related to usage of microscopes.
	22.06 Understand the staining and microscopic examination of gram stains.
	22.07 Discuss techniques of microbiology related to primary inoculation media, specimen types, and transfer of cultures.
	22.08 Perform basic techniques of microbiology in respect to routine and emergency specimen collection including time constraints.
	22.09 Discuss classification, composition and preparation of culture media.
23.0	Demonstrate basic knowledge of urinalysis. – The student will be able to:
	23.01 Understand urinalysis techniques related to normal and abnormal components of the urine.
	23.02 Perform urinalysis techniques related to collection and preservation of specimens including time constraints.
	23.03 Perform urinalysis techniques related to physical properties of urine.
	23.04 Perform urinalysis techniques related to dipstick urine pH and describe clinical significance.
	23.05 Discuss urinalysis techniques related to urine specific gravity techniques.
	23.06 Perform dipstick or tablet (non-automated) urinalysis techniques related to performance of chemical tests.
	23.07 Discuss urinalysis techniques related to microscopic identification of significant elements.
	23.08 Perform urinalysis techniques related to principles and use of centrifuge.
24.0	Demonstrate basic knowledge of clinical chemistry. – The student will be able to:
	24.01 Perform techniques of clinical chemistry related to metric measurement.
	24.02 Perform techniques of clinical chemistry related to lab ware and clinical equipment.
	24.03 Perform techniques of clinical chemistry related to reagent preparation, laboratory equipment and laboratory techniques.
	24.04 Discuss techniques of clinical chemistry related to standardization of procedure and use of standards, blanks and controls.
	24.05 Discuss the importance of Quality Assurance as it relates to patient results.
	24.06 Discuss techniques of clinical chemistry related to visual colorimetry, calibration and use of the spectrophotometer.

	24.07	Demonstrate an understanding of the relationship between common clinical chemical tests and specific body systems and disorders.
25.0	Demonstrate basic knowledge of hematology. -- The student will be able to:	
	25.01	Discuss techniques of hematology related to counting formed elements of blood.
	25.02	Perform techniques of hematology related to preparation and staining.
	25.03	Discuss techniques of cell differential microscopic examination of blood films.
	25.04	Perform appropriate techniques for making a peripheral blood smear for hematologic evaluation.
	25.05	Perform techniques of hematology related to spun hematocrit tests.
	25.06	Discuss techniques of hematology related to the use of platelet function analyzing instruments in addition to performing bleeding times.
	25.07	Perform techniques of hematology related to hemoglobin tests.
	25.08	Understand the use of and importance of red blood cell indices.
	25.09	Discuss basic techniques of hematology related to normal and abnormal physiology.
26.0	Demonstrate the basic knowledge of and perform clinical laboratory Point of Care (POC) testing (Waived). -- The student will be able to:	
	26.01	Demonstrate the ability to interpret instructions of point of care testing including , but not limited to the following:
		26.01.01 Test principle
		26.01.02 Storage & stability
		26.01.03 Internal vs. external quality control
		26.01.04 Specimen collection & preparation
		26.01.05 Directions for use
		26.01.06 Interpretation of results
		26.01.07 Interfering substances
	26.02	Explain the purpose of performing lot to lot correlations.
	26.03	Demonstrate knowledge of the frequency in which quality control procedures should be performed.
	26.04	Understand the CLIA 88 classification of laboratory testing into waived, moderate, and highly complex including the personnel qualified to perform each.

27.0	Demonstrate basic knowledge of and perform Point of Care (POC) Testing using CLIA approved Waived instrumentation. -- The student will be able to:
	27.01 Demonstrate and perform POC testing specific to microbiology, hematology, urinalysis, and clinical chemistry.
	27.02 Perform instrument maintenance.
	27.03 Demonstrate knowledge of quality control and calibrations involved within the POC instruments.
	27.04 Identify normal limits and associate abnormal results with disease or disorders.
	27.05 Discuss the significance of reporting critical values as it applies to Point of Care testing.
28.0	Successfully complete learning experiences in the clinical setting. – The student will be able to:
	28.01 Observe and participate as appropriate the skills outlined in outcomes for medical lab assisting.
	28.02 Complete clinical rotations.

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

This program meets the Department of Health's education requirements for HIV/AIDS, Domestic Violence and Prevention of Medical Errors. Although not a requirement for initial licensure, it is a requirement for renewal, therefore the instructor may provide a certificate for renewal purposes to the student verifying these requirements have been met.

If students in this program are seeking a licensure, certificate or registration through the Department of Health, please refer to 456.0635 F.S. for more information on disqualification for a license, certificate, or registration through the Department of Health.

Outcomes 01-11 are referred to as the Health Science Core and do not have to be completed if the student has previously completed the Core in another health occupations program at any level. The Core should be taken first or concurrently with the first course in the program. Following the successful completion of the core, the student is eligible to take the National Health Care Foundation Skill Standards Assessment with instructor approval and the completion of a portfolio.

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)

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.

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.

Basic Skills

In a Career Certificate Program offered for 450 hours or more, in accordance with Rule 6A-10.040, F.A.C., the minimum basic skills grade levels required for postsecondary adult career and technical students to complete this program are: Mathematics 9, Language 11, and Reading 11. These grade level numbers correspond to a grade equivalent score obtained on a state designated basic skills examination.

Adult students with disabilities, as defined in Section 1004.02(7), Florida Statutes, may be exempted from meeting the Basic Skills requirements (Rule 6A-10.040). Students served in exceptional student education (except gifted) as defined in s. 1003.01(3) (a), F.S., may also be exempted from meeting the Basic Skills requirement. Each school district and Florida College must adopt a policy addressing procedures for exempting eligible students with disabilities from the Basic Skills requirement as permitted in Section 1004.91(3), F.S.

Students who possess a college degree at the Associate of Applied Science level or higher; who have completed or are exempt from the college entry-level examination; or who have passed a state, national, or industry licensure exam are exempt from meeting the Basic Skills requirement (Rule 6A-10.040, F.A.C.) Exemptions from state, national or industry licensure are limited to the certifications listed on the Basic Skills and Licensure Exemption List which may be accessed from the CTE Program Resources page.

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: **Medical Education Simulator Technician**
Program Type: **Career Preparatory**
Career Cluster: **Health Science**

Career Certificate Program	
Program Number	H170400
CIP Number	0311010200
Grade Level	30,31
Standard Length	600 hours
Teacher Certification	Refer to the **Program Structure** section.
CTSO	HOSA: Future Health Professionals; Skills USA
SOC Codes (all applicable)	31-9099 Healthcare Support Workers, All Other 29-2099 Health Technologists and Technicians, All Other
Basic Skills Level	Mathematics: 10 Language: 10 Reading: 10

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 Health Science 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 Health Science career cluster.

This program is designed to prepare students for employment as a Medical Education Simulator Technician (Health technologists and technicians, all others SOC #29-2099). This program offers a broad foundation of knowledge and skills to prepare students for employment in the clinical inpatient, clinical outpatient and research settings.

The content includes but is not limited to the history of the simulator, patient care, infection control, legal and ethical responsibilities, health-illness concepts, medical terminology, anatomy and physiology, safety and security procedures, administrative and personal competence, and the employability skills that are basic to all health care occupations.

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 2 occupational completion points.

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	HSC0003	Basic Healthcare Worker	ANY HEALTH OCCUP G *(See DOE approved list)	90 hours	31-9099
	HSC0061	Intro to Clinical Medical Education Simulator Technician		60 hours	
	HSC0062	Clinical Medical Education Simulator Technician 1	REG NURSE SIM TEC 7 G PARAMEDIC SIM TEC 7 G	150 hours	
	HSC0063	Clinical Medical Education Simulator Technician 2		150 hours	
B	HSC0064	Clinical Medical Education Simulator Technician 3		150 hours	29-2099

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 of the healthcare delivery system and health occupations.
02.0 Demonstrate the ability to communicate and use interpersonal skills effectively.
03.0 Demonstrate legal and ethical responsibilities.
04.0 Demonstrate an understanding of and apply wellness and disease concepts.
05.0 Recognize and practice safety and security procedures.
06.0 Recognize and respond to emergency situations.
07.0 Recognize and practice infection control procedures.
08.0 Demonstrate an understanding of information technology applications in healthcare.
09.0 Demonstrate employability skills.
10.0 Demonstrate knowledge of blood borne diseases, including HIV/AIDS.
11.0 Apply basic math and science skills.
12.0 Demonstrate knowledge of the history of simulation in medical education.
13.0 Demonstrate knowledge of medical anatomy and physiology.
14.0 Perform Operation of the simulator.
15.0 Conduct set up of simulator.
16.0 Demonstrate an understanding of calibration and testing of the simulator.
17.0 Perform routine maintenance on the simulator.
18.0 Demonstrate trouble shooting skills on the simulator.
19.0 Demonstrate knowledge of professional development.
20.0 Conduct assembly and installation operation of the simulator.
21.0 Perform repairs to the simulator.

Florida Department of Education
Student Performance Standards

Program Title: Medical Education Simulator Technician
Career Certificate Program Number: H170400

The **Basic Health Care Worker (HSC0003)** is referred to as the **Health Science Core** and is the first OCP in the majority of the Career Certificate Program health science programs. Secondary and Postsecondary students completing the health science core will not have to repeat the core in any other health science program in which it is a part. When the recommended sequence is followed, the structure allows students to complete at specified points for employment or remain for advanced training or cross-training.

Career Certificate Program Course Number: HSC0003
Occupational Completion Point: A
Basic Healthcare Worker – 90 Hours – SOC Code 31-9099

To ensure consistency whenever these courses are offered, the health science core standards (1-11) have been placed in a separate document.

Course Number: HSC0061 **Occupational Completion Point: B** **Introduction to Clinical Medical Education Simulation Technician – 60 Hours – SOC Code 29-2099**	
12.0	Introduction to Medical simulation. -- The students will be able to:
12.01	Demonstrate the knowledge of the history of medical simulation.
12.02	Demonstrate the awareness of emerging technologies in the medical industry.
12.03	Describe the categories of health care agencies involved in the clinical simulation setting.
13.0	Demonstrate knowledge of medical anatomy and physiology. -- The students will be able to:
13.01	Describe the muscular system structure and function, under normal, injurious, and degraded conditions.
13.02	Describe the skeletal system structure and function, under normal, injurious, and degraded conditions.
13.03	Describe the neurologic system structure and function, under normal, injurious, and degraded conditions.
13.04	Demonstrate knowledge of the human body system in relationship to human simulators body systems.
13.05	Demonstrate knowledge of medical terminology as it relates to the clinical setting.

Course Number: HSC0062 Occupational Completion Point: B Clinical Medical Education Simulation Technician 1– 150 Hours – SOC Code 29-2099	
14.0	Perform operations of the simulator. -- The students will be able to:
14.01	Follow simulation set up protocol.
14.02	Begin simulation.
14.03	Call up events.
14.04	Execute events.
14.05	Power down equipment.
14.06	Conduct technical debriefing with trainer.
14.07	Clean up simulation environment.
14.08	Create standard operating procedures (SOPs) for use of simulators.
15.0	Conduct simulator set up. – The students will be able to:
15.01	Collaborate with faculty/educator to identify the objectives of the session.
15.02	Collaborate with faculty/educator to identify tools and resources.
15.03	Collaborate with faculty/educator to identify supplies and equipment.
15.04	Load scenarios.
15.05	Set up simulation environment.
15.06	Load student data.
15.07	Prepare competency management system.
15.08	Schedule facility and staff.
15.09	Pre-program scenarios.
15.10	Program auxiliary equipment.
16.0	Demonstrate an understanding of testing and calibrating the simulator. -- The students will be able to:
16.01	Turn on the power to the simulator.

16.02	Perform calibration per manufacturer recommendations.
16.03	Identify test tools and equipment.
16.04	Perform bench test.
16.05	Document test results.
16.06	Follow industry safety standards.
16.07	Identify documentation resources.
16.08	Demonstrate knowledge of warranty void situations.

Course Number: HSC0063 **Occupational Completion Point: B** **Clinical Medical Education Simulation Technician 2 – 150 Hours – SOC Code 29-2099**	
17.0	Perform routine maintenance on the simulator. – The students will be able to:
17.01	Clean and maintain injection sites.
17.02	Flush IV lines.
17.03	Maintain fluid systems.
17.04	Check drain system on compressor.
17.05	Perform visual inspection of system.
17.06	Perform computer and peripheral diagnostics.
17.07	Perform hardware, firmware, and software updates.
17.08	Perform simulator environment housekeeping.
17.09	Check power sub system.
17.10	Perform external cleaning protocol for simulator.
17.11	Maintain maintenance log.
18.0	Demonstrate troubleshooting skills as related to the simulator. -- The students will be able to:
18.01	Review user log.

18.02	Perform diagnostic tests.
18.03	Verify functional/operational discrepancy.
18.04	Perform sensory inspection.
18.05	Determine if there is a hardware or software problem.
18.06	Identify failed component(s).
18.07	Perform audio/visual inspection.

Course Number: HSC0064 **Occupational Completion Point: B** **Clinical Medical Education Simulation Technician 3 – 150 Hours – SOC Code 29-2099**	
19.0	Demonstrate knowledge of professional development. -- The students will be able to:
19.01	Perform self-evaluation additional skills needed and develop plan for acquiring.
19.02	Attend classes, seminars and workshops that provide updated training on simulation.
19.03	Read current literature regarding simulation including manuals, journals, and research.
19.04	Assist medical trainer with supplemental training opportunities.
20.0	Conduct installation and assembly operations. -- The students will be able to:
20.01	Read all instructions.
20.02	Identify safety issues.
20.03	Identify components for assembly.
20.04	Identify tools and resources necessary.
20.05	Maintain files of manufacturer specifications for each simulator.
20.06	Identify and remove damaged parts if applicable.
20.07	Perform hardware installation.
20.08	Complete installation documentation.

	20.09 Clean work space.
	20.10 Perform software installation
21.0	Perform necessary repairs to simulator. -- The students will be able to:
	21.01 Determine priority of repair.
	21.02 Schedule repair time.
	21.03 Identify tools and resources required.
	21.04 Replace simulator component(s).
	21.05 Complete repair documentation.

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.

Laboratory activities are an integral part of this program and include the use simulators including SimMan 3G, SimBaby and VitaSim. Simulation activities replace real world experiences with guided experiences that re fully interactive. Students are tested on clinical and decision-making skills during patience care scenarios with greater diagnostic accuracy. Patient scenarios offer immediate feedback and learners engage in repetitive practices. Instructor can create, control and deviate clinical scenarios that may be adapted to multiple learning strategies.

Special Notes

Technical content includes but is not limited to routine maintenance on patient simulators, trouble shooting skills, assembly and installation of a variety of types of simulators, and repairing simulators. Simulation protocols, the setup of simulation events, technical debriefings, and creation of standard operating procedures are also included in the content. Additional technical content includes setting up simulation environments, loading student data, pre-programming scenarios, inspection of systems, and the performance of hardware, firmware and software updates.

The MEST program has been designed to teach individuals the skills necessary to work as a technician in a patient simulation lab. Patient simulation labs are generally located in hospitals, community colleges, universities, fire departments, etc. Patient simulators are used in medical education training for both incumbent workers and students enrolled in health occupations programs.

This program meets the Department of Health's education requirements for HIV/AIDS, Domestic Violence and Prevention of Medical Errors. Although not a requirement for initial licensure, it is a requirement for renewal, therefore the instructor may provide a certificate for renewal purposes to the student verifying these requirements have been met.

If students in this program are seeking a licensure, certificate or registration through the Department of Health, please refer to 456.0635 F.S. for more information on disqualification for a license, certificate, or registration through the Department of Health.

Outcomes 01-11 are referred to as the Health Science Core and do not have to be completed if the student has previously completed the Core in another health occupations program at any level. The Core should be taken first or concurrently with the first course in the program. Following the successful completion of the core, the student is eligible to take the National Health Care Foundation Skill Standards Assessment with instructor approval and the completion of a portfolio.

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)

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.

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.

Basic Skills

In a Career Certificate Program offered for 450 hours or more, in accordance with Rule 6A-10.040, F.A.C., the minimum basic skills grade levels required for postsecondary adult career and technical students to complete this program are: Mathematics 10, Language 10, and Reading 10. These grade level numbers correspond to a grade equivalent score obtained on a state designated basic skills examination.

Adult students with disabilities, as defined in Section 1004.02(7), Florida Statutes, may be exempted from meeting the Basic Skills requirements (Rule 6A-10.040). Students served in exceptional student education (except gifted) as defined in s. 1003.01(3)(a), F.S., may also be exempted from meeting the Basic Skills requirement. Each school district and Florida College must adopt a policy addressing procedures for exempting eligible students with disabilities from the Basic Skills requirement as permitted in Section 1004.91(3), F.S.

Students who possess a college degree at the Associate of Applied Science level or higher; who have completed or are exempt from the college entry-level examination; or who have passed a state, national, or industry licensure exam are exempt from meeting the Basic Skills requirement (Rule 6A-10.040, F.A.C.) Exemptions from state, national or industry licensure are limited to the certifications listed on the Basic Skills and Licensure Exemption List which may be accessed from the CTE Program Resources page.

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: **Pharmacy Technician**
Program Type: **Career Preparatory**
Career Cluster: **Health Science**

Career Certificate Program	
Program Number	H170500
CIP Number	0351080506
Grade Level	30, 31
Standard Length	1050 hours
Teacher Certification	Refer to the **Program Structure** section.
CTSO	HOSA: Future Health Professionals, Skills USA
SOC Codes (all applicable)	31-9099 Healthcare Support Workers, All Other 29-2052 Pharmacy Technicians
Basic Skills Level	Mathematics: 11 Language: 10 Reading: 10

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 Health Science 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 Health Science career cluster.

This program focuses on broad, transferable skills and stresses understanding and demonstration of the following elements of the health care industry; planning, management, finance, technical and production skills, underlying principles of technology, labor issues, community issues and health, safety, and environmental issues.

The content includes but is not limited to metric system, medical terminology, medicinal drugs, pharmaceutical compounding, USP 795 standards, sterile techniques, USP 797 and USP 800 standards, maintenance of inventory, IV preparation, receiving and handling of hazardous materials, preparing purchase orders, receiving and checking supplies purchased, printing labels, typing prescription labels, delivering medications, pricing

prescription drug orders and supplies, prepackaging unit dose packages, patient record systems, control records, data processing automation in pharmacy, computer application, employability skills, leadership and human relations skills, health and safety, including CPR.

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 2 occupational completion points.

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	HSC0003	Basic Healthcare Worker	PHARMACY 7G	90 hours	31-9099
	PTN0084	Pharmacy Technician 1		360 hours	29-2052
	PTN0085	Pharmacy Technician 2		300 hours	
B	PTN0086	Pharmacy Technician 3		300 hours	

Regulated Programs

This program is regulated by the Department of Health; Florida Board of Pharmacy.

This program must be approved by the Board of Pharmacy. Program completers who wish to work as Pharmacy Technicians in the State of Florida must register with the Board of Pharmacy (465.014 F.S.).

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 of the healthcare delivery system and health occupations.
02.0 Demonstrate the ability to communicate and use interpersonal skills effectively.
03.0 Demonstrate legal and ethical responsibilities.
04.0 Demonstrate an understanding of and apply wellness and disease concepts.
05.0 Recognize and practice safety and security procedures.
06.0 Recognize and respond to emergency situations.
07.0 Recognize and practice infection control procedures.
08.0 Demonstrate an understanding of information technology applications in healthcare.
09.0 Demonstrate employability skills.
10.0 Demonstrate knowledge of blood borne diseases, including HIV/AIDS.
11.0 Apply basic math and science skills.
12.0 Practice human relations.
13.0 Identify pharmaceutical abbreviations and terminology as related to Community Pharmacy Practice.
14.0 Identify medical and legal considerations in various pharmacy settings.
15.0 Perform clerical duties as related to Pharmacy Practice.
16.0 Demonstrate knowledge of basic pharmaceutical chemistry and drug classification.
17.0 Demonstrate knowledge of inventory management.
18.0 Initiate measurement and calculating techniques as it relates to United States Pharmacopeia (USP) 795 (non-sterile) compounding in pharmacy practice.
19.0 Demonstrate a basic knowledge of pharmaceutical chemistry as it relates to human physiology.
20.0 Prepare and deliver medications.
21.0 Repackage unit dose medications.
22.0 Prepare United States Pharmacopeia (USP) 797 and USP 800 sterile products.

Florida Department of Education
Student Performance Standards

Program Title: Pharmacy Technician
Career Certificate Program Number: H170500

The **Basic Health Care Worker (HSC0003)** is referred to as the **Health Science Core** and is the first OCP in the majority of the Career Certificate Program health science programs. Secondary and Postsecondary students completing the health science core will not have to repeat the core in any other health science program in which it is a part. When the recommended sequence is followed, the structure allows students to complete at specified points for employment or remain for advanced training or cross-training.

Career Certificate Program Course Number: HSC0003
Occupational Completion Point: A
Basic Healthcare Worker – 90 Hours – SOC Code 31-9099

To ensure consistency whenever these courses are offered, the health science core standards (1-11) have been placed in a separate document.

Course Number: PTN0084
Occupational Completion Point: B
Pharmacy Technician 1 – 360 Hours – SOC Code 29-2052

12.0	Practice human relation skills. - The student will be able to:
12.01	Explore the meaning and duties of a pharmacy technician.
12.02	Explore the organizational flow of responsibilities within a pharmacy setting.
12.03	Understand the importance of developing and maintaining a professional rapport with co-workers.
12.04	Identify pharmacy organizations and their role in the profession to include student membership opportunities.
12.05	Identify the current trends and perspectives in the pharmacy practice.
12.06	Identify how team building can facilitate change within the pharmacy working environment.
12.07	Understand the importance of good interpersonal skills/soft skills in various pharmacy settings.
12.08	Demonstrate ethical conduct in job-related activities.
12.09	Identify State of Florida requirements for obtaining and maintaining pharmacy technician registration as well as continuing education requirements for renewal.
12.10	Explore the importance of national certification and the continuing education requirements for renewal.

13.0	Identify pharmaceutical abbreviations and terminology as related to pharmacy practice. - The student will be able to:
13.01	Utilize pharmaceutical medical terminology.
13.02	Analyze the major symbols and abbreviations used on prescriptions and state the meaning.
13.03	Identify safety strategies used to prevent medication errors due to pharmaceutical abbreviations and terminology.
14.0	Identify medical and legal considerations in various pharmacy settings. - The student will be able to:
14.01	Articulate the significance of current national and Florida law and administrative rules as they relate to the scope of practice for the pharmacy technician.
14.02	Convey an understanding of patient counseling requirements pertaining to OBRA-90 versus MTM (Medication Therapy Management).
14.03	Convey an understanding of medical legal concepts as they relate to the scope of practice for the pharmacy technician.
14.04	Explain the legal requirements for accurate pharmacy documentation and recordkeeping.
14.05	Demonstrate an understanding of HIPAA in pharmacy practice pertaining to the ethical and legal considerations.
14.06	Convey an understanding of the patient's Bill of Rights as it relates to pharmacy practice.
14.07	Convey an understanding of pertinent laws governing pharmacy practice such as false prescriptions and drug diversion.
14.08	Differentiate between controlled substance schedules (CI-CV) and their applicable regulations.
14.09	Convey an understanding of the Florida Right to Know Act with respect to hazardous materials, the utilization of safety data sheets, and hazardous communication symbols.
14.10	Implement appropriate patient safety goals by applicable accrediting and regulatory organizations.
14.11	Understand and explain the legal requirements for final check by the pharmacist
14.12	Classify activities that may be performed by pharmacy technicians and those that must be performed by licensed pharmacists.
14.13	Explain the importance of information technology (IT) and its current use in various pharmacy settings.
15.0	Perform clerical duties as related to pharmacy practice. - The student will be able to:
15.01	Demonstrate retail pharmacy dispensing processes.
15.02	Identify potential errors that may result in Quality Related Events.
15.03	Utilize pharmacy software in processing pharmacy prescription data.
15.04	Identify and discuss applications of E-Prescribing and facsimile.

	15.05	Utilize and apply interactive communication skills while gathering accurate information from patients and from other healthcare professionals
	15.06	Identify communication modalities that can result in the transmission of inaccurate information, and explain specific ways to make improvements.
	15.07	Create, complete and maintain patient profiles including third party billing information.
	15.08	Understand the processes of third party billing, resolving rejections, and obtaining authorizations.
	15.09	Demonstrate professional telephone communication skills within the scope of practice for the pharmacy technician.
	15.10	Demonstrate the knowledge of systems used in maintaining pharmacy records.
	15.11	Summarize, evaluate, and describe the role of the technician in quality assurance activities as related to various pharmacy practices.
16.0	Demonstrate knowledge of basic pharmaceutical chemistry and drug classification. -The student will be able to:	
	16.01	Define the major classifications of pharmaceuticals.
	16.02	Categorize at least one official compendia of standards for quality and purity of drugs and authoritative information on dosage, administration and therapeutic equivalents.
	16.03	Utilize pharmacy reference manuals and web sites.
	16.04	Apply knowledge of trade names, and generic name equivalents.
17.0	Demonstrate knowledge of inventory management. -The student will be able to:	
	17.01	Convey an understanding of industry standards in purchasing pharmaceutical supplies, including the Florida Pedigree Law.
	17.02	Maintain controlled substance inventory.
	17.03	Apply knowledge of pharmacy business math to prescription pricing systems.
	17.04	Maintain stock inventory, communicate shortages, and seek solutions to maintain continuity of patient care.
	17.05	Create electronic purchase orders.
	17.06	Accurately perform the process of purchasing, receiving, storing, distributing and disposing of pharmaceutical supplies.
	17.07	Convey an understanding of Investigational Drugs, Risk Evaluation and Mitigation Strategies (REMS), off label indications, and emerging drug therapy.
	17.08	Convey an understanding of the inventory control process implemented by Title II of the Drug Quality and Security Act.
18.0	Initiate measurement and calculating techniques as it relates to United States Pharmacopeia (USP) 795 (non-sterile) compounding in pharmacy practice. -The student will be able to:	

18.01	Convey an understanding of United States Pharmacopeia (USP) 795 standards.
18.02	Convert measurements within the apothecary, avoirdupois, household and metric systems.
18.03	Perform common pharmaceutical calculations.
18.04	Identify common pharmaceutical weighing equipment.
18.05	Identify common pharmaceutical volume measurement equipment.
18.06	Demonstrate the technique of preparing common pharmaceutical compounds.
18.07	Summarize, evaluate and describe the role of the technician in quality assurance activities as related to the preparation of non-sterile products.

Course Number: PTN0085 Occupational Completion Point: B Pharmacy Technician 2 – 300 Hours – SOC Code 29-2052	
19.0	Demonstrate a basic knowledge of pharmaceutical chemistry as it relates to human physiology. -The student will be able to:
19.01	Describe electrolyte balances and imbalances.
19.02	Relate the general sources, classes, indications, mechanisms of actions, routes of administration, side effects, and various types of drug interactions.
19.03	Demonstrate an understanding of common adult doses of medications, duration of common drug therapies, and respective contraindications including the BEERS Criteria.
19.04	Identify potential interactions that require a pharmacist's intervention pertaining to food/alcohol, herbal, OTC, and/or prescription medications.
20.0	Prepare and deliver medications. - The student will be able to:
20.01	Read and prepare medication orders correctly.
20.02	Demonstrate institutional pharmacy dispensing processes.
20.03	Compare all new orders with medications listed on profiles while noting any changes.
20.04	Utilize special precautions in the preparation of medications for pediatric patients.
20.05	Transport medications safely being aware of hazards: theft, legal implications of accidental loss, and other consequences.
20.06	Understand how to correctly fill and deliver medication cassettes.
20.07	Collect data from medication administration record.

20.08	Demonstrate use of automated medication dispensing equipment.

Course Number: PTN0086 Occupational Completion Point: B Pharmacy Technician 3 – 300-Hours – SOC Code 29-2052	
21.0	Repackage unit dose medications. - The student will be able to:
21.01	Locate correct stock container.
21.02	Operate unit dose packaging equipment.
21.03	Measure, count, and place individual dose in appropriate containers.
21.04	Understand precautions used when packaging unit dose hazardous drugs.
21.05	Record repackaged medication data correctly.
21.06	Summarize, evaluate, and describe the role of the technician in quality assurance activities as related to repackaging unit dose medication.
22.0	Prepare United States Pharmacopeia (USP) 797 and USP 800 sterile products. - The student will be able to:
22.01	Convey an understanding of United States Pharmacopeia (USP) 797 regulations.
22.02	Convey an understanding of United States Pharmacopeia (USP) 800 regulations.
22.03	Compare medication order with label on vial and check expiration date of product.
22.04	Calculate drug dosage for parenteral use.
22.05	Understand common institutional drug names, dosages, and incompatibilities.
22.06	Reconstitute parenteral medications.
22.07	Demonstrate aseptic technique to withdraw medication from stock vial, measure correct quantity as instructed, select and insert it into IV solution without error.
22.08	Demonstrate aseptic technique to withdraw medication from an ampule using filter needle/straw.
22.09	Prepare parenteral solutions using proper aseptic technique.
22.10	Understand the preparation of Total Parenteral Nutrition (TPN) solutions.
22.11	Understand the preparation of chemotherapeutic agents using proper safety techniques.
22.12	Understand the appropriate technique while using specialized equipment such as: laminar flow hoods, filters, pumps, automated compounders, and barrier isolator.

22.13	Place label on IV solution container and record appropriately.
22.14	Perform quality control check of completed product.
22.15	Convey an understanding of the proper storage and disposal requirements of reconstituted and non-reconstituted IV solutions.
22.16	Convey an understanding of the proper storage and disposal of hazardous drugs.
22.17	Summarize, evaluate and describe the role of the technician in quality assurance activities as related to the preparation of sterile products.

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.

Clinical practicum experiences are an integral part of this program.

Special Notes

Due to the clinical experiences students are engaged in through the program and to ensure the safety of both the students and the patients the recommended student to instructor ratio in the classroom is 20:1 and in the lab is 4:1.

This program meets the Department of Health's education requirements for HIV/AIDS, Domestic Violence and Prevention of Medical Errors. Although not a requirement for initial licensure, it is a requirement for renewal, therefore the instructor may provide a certificate for renewal purposes to the student verifying these requirements have been met.

If students in this program are seeking a licensure, certificate or registration through the Department of Health, please refer to 456.0635 F.S. for more information on disqualification for a license, certificate, or registration through the Department of Health.

It is recommended that program completers take national pharmacy technician certification exam offered by the Pharmacy Technician Certification Board, 2215 Constitution Ave. NW, Washington, DC 20037-2985, (202) 429-7576. This certification is offered all year round on a continual basis.

Outcomes 01-11 are referred to as the Health Science Core and do not have to be completed if the student has previously completed the Core in another health occupations program at any level. The Core should be taken first or concurrently with the first course in the program. Following the successful completion of the core, the student is eligible to take the National Health Care Foundation Skill Standards Assessment with instructor approval and the completion of a portfolio.

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)

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.

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.

Basic Skills

In a Career Certificate Program offered for 450 hours or more, in accordance with Rule 6A-10.040, F.A.C., the minimum basic skills grade levels required for postsecondary adult career and technical students to complete this program are: Mathematics 11, Language 10, and Reading 10. These grade level numbers correspond to a grade equivalent score obtained on a state designated basic skills examination.

Adult students with disabilities, as defined in Section 1004.02(7), Florida Statutes, may be exempted from meeting the Basic Skills requirements (Rule 6A-10.040). Students served in exceptional student education (except gifted) as defined in s. 1003.01(3) (a), F.S., may also be exempted from meeting the Basic Skills requirement. Each school district and Florida College must adopt a policy addressing procedures for exempting eligible students with disabilities from the Basic Skills requirement as permitted in Section 1004.91(3), F.S.

Students who possess a college degree at the Associate of Applied Science level or higher; who have completed or are exempt from the college entry-level examination; or who have passed a state, national, or industry licensure exam are exempt from meeting the Basic Skills requirement (Rule 6A-10.040, F.A.C.) Exemptions from state, national or industry licensure are limited to the certifications listed on the Basic Skills and Licensure Exemption List which may be accessed from the CTE Program Resources page.

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: **Medical Records Transcribing/Healthcare Documentation**
Program Type: **Career Preparatory**
Career Cluster: **Health Science**

Career Certificate Program	
Program Number	H170506
CIP Number	0351070701
Grade Level	30, 31
Standard Length	1200 hours
Teacher Certification	Refer to the **Program Structure** section.
CTSO	HOSA: Future Health Professionals
SOC Codes (all applicable)	29-2099 Health Technologists and Technicians, All Other 31-9094 Medical Transcriptionists
Basic Skills Level	Mathematics: 9 Language: 11 Reading: 11

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 Health Science 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 Health Science career cluster.

This program is designed to prepare students for employment as SOC 31-9094 Medical Transcriptionists.

The content includes but is not limited to medical terminology, anatomy and physiology, grammar and punctuation, health care delivery systems, health information services, ethical and legal responsibilities, safety/security procedures, word processing/ transcription skills and employability 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 a planned sequence of instruction consisting of 2 occupational completion points.

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	HIM0009	Introduction to Health Information Technology	MED RECTEC 7G MED TRANS 7G MED ASST 7G	90 hours	29-2099
B	HIM0074	Medical Transcriber 1		370 hours	31-9094
	HIM0075	Medical Transcriber 2		370 hours	
	HIM0081	Medical Transcriber 3		370 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 an understanding of healthcare organizations and health occupations.
02.0 Demonstrate the ability to communicate and use interpersonal skills effectively.
03.0 Explore health informatics as an allied health profession.
04.0 Demonstrate an understanding of health data concepts.
05.0 Identify the functions of a health record.
06.0 Demonstrate an understanding of Health Information Technology.
07.0 Discuss classification systems, clinical vocabularies and terminologies.
08.0 Evaluate ethical issues in Health Information Professions.
09.0 Demonstrate compliance with laws, regulations, and standards that impact healthcare.
10.0 Apply policies, regulations, and standards to the management of information associated with treatment, payment, and operations (TPO).
11.0 Demonstrate computer knowledge and skills.
12.0 Demonstrate employability skills.
13.0 Utilize appropriate medical and scientific terminology.
14.0 Apply concepts of disease, diagnosis, and treatment of the human body.
15.0 Apply rules of English grammar and punctuation.
16.0 Utilize medical references.
17.0 Apply healthcare documentation technology.
18.0 Perform functions specific to the medical transcription/healthcare documentation specialist.
19.0 Perform proficiently in the application of healthcare documentation/transcribing concepts and skills through practical lab experiences.

Florida Department of Education
Student Performance Standards

Program Title: Medical Records Transcribing/Healthcare Documentation
Career Certificate Program Number: H170506

Course Number: HIM0009 **Occupational Completion Point: A** **Introduction to Health Information Technology – 90 Hours – SOC Code 29-2099**	
01.0	Demonstrate an understanding of the healthcare organizations and health occupations. – The student will be able to:
01.01	Discuss the evolution of healthcare.
01.02	Demonstrate an understanding of the infrastructure of healthcare in the United States.
01.03	Discuss healthcare regulatory agencies and organizations.
01.04	Recognize levels of education, credentialing requirements, employment opportunities, workplace environments, and career growth potential.
01.05	Differentiate the roles of various providers and disciplines throughout the continuum of healthcare and respond to their information needs.
02.0	Demonstrate the ability to communicate and use interpersonal skills effectively. – The student will be able to:
02.01	Develop basic speaking and active listening skills with meaningful feedback.
02.02	Develop basic observational skills and related documentation strategies in written and oral form.
02.03	Identify characteristics of successful and unsuccessful communication including barriers.
02.04	Respond to verbal and non-verbal cues.
02.05	Compose written communication including emails using correct spelling, grammar, formatting and confidentiality.
02.06	Demonstrate ability to create professional correspondence using appropriate email practices and etiquette.
02.07	Use appropriate medical terminology and abbreviations.
02.08	Model the importance of courtesy and respect for patients and other healthcare workers and maintain good interpersonal relationships.
02.09	Provide health information education to internal/external stakeholders.
02.10	Adapt communication skills to varied levels of understanding and cultural orientation including diverse age, cultural, economic, ethnic, and religious groups.

	02.11 Distinguish between and identify subjective and objective information.
03.0	Explore health information as an allied health profession. – The student will be able to:
	03.01 Discuss the history of health information management.
	03.02 Discuss the professional opportunities within the health information professions.
	03.03 Demonstrate knowledge of professional associations applicable to the field of health information.
04.0	Demonstrate an understanding of health data concepts. – The student will be able to:
	04.01 Describe the various uses of primary and secondary health data and data sets.
	04.02 Identify various characteristics of health data quality and standards.
05.0	Identify the functions of a health record. – The student will be able to:
	05.01 Demonstrate an understanding of the various formats of the health record.
	05.02 Explain the various uses of a health information as it relates to treatment, payment, and operations (TPO).
06.0	Demonstrate an understanding of Health Information Technology. – The student will be able to:
	06.01 Discuss how changing regulations and technology impact the health information field.
	06.02 Interpret information from health information systems and applications in healthcare.
	06.03 Demonstrate an understanding of creation, use, storage, retrieval, and exchange of health data.
07.0	Discuss classification systems, clinical vocabularies and terminologies. – The student will be able to:
	07.01 Explain the use of classification systems, clinical vocabularies, and terminologies as they relate to Health Information Management and nomenclatures.
08.0	Evaluate ethical issues in Health Information Professions. – The student will be able to:
	08.01 Describe the code of ethics consistent with healthcare occupations.
	08.02 Analyze ethical issues related to health information.
	08.03 Manage ethical issues related to coding and billing/ healthcare documentation.
09.0	Demonstrate compliance with laws, regulations, and standards that impact healthcare. – The student will be able to:
	09.01 Promote the importance of maintaining ethical and legal standards in compilation and usage of health information.

	09.02 Identify all laws and standards that impact health information including the Health Insurance Portability and Accountability Act (HIPAA).
	09.03 Explain the composition of the legal health record.
	09.04 Apply health information policies and procedures for privacy, confidentiality, and security.
	09.05 Articulate legal terms and processes that impact healthcare.
10.0	Apply policies, regulations, and standards to the management of information associated with treatment, payment, and operations (TPO). – The student will be able to:
	10.01 Describe how to adapt workflow necessitated by regulatory change.
	10.02 Demonstrate knowledge of policies and procedures for access and disclosure of protected health information to authorized users.
	10.03 Adhere to appropriate and applicable accrediting agency guidelines.
11.0	Demonstrate computer knowledge and skills. – The student will be able to:
	11.01 Demonstrate the ability to create, manage, organize, attach, and retrieve files.
	11.02 Demonstrate ability to connect to and perform research on the internet by identifying reliable reputable websites.
	11.03 Demonstrate proficiency in word processing, spreadsheets, and presentation software.
	11.04 Demonstrate the ability to install software programs.
	11.05 Demonstrate knowledge of safe computer practices and security procedures including but not limited to encryption, passwords and biometrics.
12.0	Demonstrate employability skills. – The student will be able to:
	12.01 Identify and exemplify personal traits or attitudes desirable in a member of the healthcare team.
	12.02 Model professional standards of healthcare workers as they apply to hygiene, dress, language, confidentiality and behavior (i.e. courtesy and self-introductions).
	12.03 Identify documents that may be required when applying for a job.
	12.04 Perform the process to obtain employment: job search, cover letter, resume, application, and thank you letter.

Course Number: HIM0074 **Occupational Completion Point: B** **Medical Transcriber 1 – 370 Hours – SOC Code 31-9094**	
13.0	Utilize appropriate medical and scientific terminology. – The student will be able to:

13.01	Spell, define and pronounce medical words and their components.
13.02	Define and use medical abbreviations, brief forms, acronyms, eponyms, and foreign words and phrases commonly used in healthcare practice.
13.03	Identify and use the medical terminology related to the structure and function of the human body.
13.04	Identify, pronounce, spell, and define pharmacological terminology.
13.05	Distinguish between or among medical homophones (sound-alikes), commonly confused medical terms, and synonyms.
14.0	Apply concepts of disease, diagnosis, and treatment of the human body. – The student will be able to:
14.01	Identify and explain structure and function of the human body in health and in disease.
14.02	Identify disorders and treatments of the human body.
14.03	Identify and explain procedures and technologies, imaging, laboratory, pathology, and their application to diseases and disorders.
14.04	Demonstrate knowledge of pharmacology to include indications and contraindications, dosage, methods of administration, interactions and side effects.
14.05	Organize surgical procedures and other interventional diagnostic and treatment modalities by specialty, indications or related diagnoses, technique, and typical findings.
15.0	Apply rules of English grammar and punctuation. – The student will be able to:
15.01	Recognize and use the principal parts of speech.
15.02	Recognize and use punctuation marks.
15.03	Apply rules of numerical expression.
15.04	Apply rules of capitalization.
15.05	Define and use abbreviations.
15.06	Demonstrate ability to spell words in common usage.
15.07	Evaluate and use reliable resources for research and practice.
15.08	Apply correct medical style as defined by authorities (i.e. AHDI Book of style, AMA Manual of Style).
15.09	Edit and proofread healthcare documentation.
15.10	Recognize and use report formats.
16.0	Utilize medical references. – The student will be able to:

16.01	Utilize medical dictionaries and specialty word books.
16.02	Utilize trade, generic and chemical drug names utilizing reference sources.
16.03	Utilize diagnostic test terminology.
16.04	Utilize appropriate resources located on the internet.

Course Number: HIM0075 Occupational Completion Point: B Medical Transcriber 2 – 370 Hours – SOC Code 31-9094	
17.0	Apply healthcare documentation technology. – The student will be able to:
17.01	Demonstrate keyboarding skills with an awareness of productivity and accuracy standards and definitions.
17.02	Demonstrate use of transcription, dictation, and speech recognition technology.
17.03	Accurately transcribe and/or edit a required minimum number of reports to include history and physical, consultations, discharge summaries, operative reports and special reports, applying competencies specified in the areas of English language, medical knowledge, technology, healthcare documentation, and professional practice.
17.04	Demonstrate the ability to proofread and correct transcribed healthcare documents, including using critical thinking and editing skills.
17.05	Identify inconsistencies, discrepancies, and inaccuracies in healthcare dictation while transcribing/editing, without altering the meaning of the content.
17.06	Demonstrate advanced use of word processing programs, including commands for editing, file organization, and retrieval.
17.07	Demonstrate knowledge of abbreviation expanders and other productivity-enhancing software.
17.08	Demonstrate a general knowledge of health information systems including the functions related to dictation/transcription integration, editing, and common terminology.
18.0	Perform functions specific to the medical transcriptionist/ healthcare documentation specialist. – The student will be able to:
18.01	Promote common health information policies and procedures for security specific to the role of the medical transcriptionist/ healthcare documentation specialist.
18.02	Demonstrate workstation ergonomics specific to the medical transcriptionist/ healthcare documentation specialist
18.03	Demonstrate an awareness of the opportunities in medical transcription/healthcare documentation and related careers and the importance of professional development.
18.04	Explain the importance of maintaining workstation security and safeguarding protected health information (PHI).
18.05	Explain the scope of work of the medical transcriptionist/healthcare documentation specialist.

18.06 Discuss the code of ethics of the Association for Healthcare Documentation Integrity (AHDI).

Course Number: HIM0081 **Occupational Completion Point: B** **Medical Transcriber 3 – 370 Hours – SOC Code 31-9094**
19.0 Perform proficiently in the application of healthcare documentation/transcribing concepts and skills through practical lab experiences. – The student will:
36.01 Model the role and responsibilities of the healthcare documentation transcription specialists.
36.02 Apply knowledge and skills related to speech recognition, dictation, documentation standards, technology, and transcription.
36.03 Perform real-world applications of healthcare documentation/transcription principles and best practices.
36.04 Analyze errors and devise corrective strategies.
36.05 Transcribe and/or edit a minimum 2100 minutes of authentic clinician-generated documentation.

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

For those programs preparing students for the Registered Healthcare Documentation Specialist industry certification through Association for the Healthcare Documentation Integrity (AHDI) the model curriculum of the AHDI should be used to properly prepare students for this examination. Industry Certification is voluntary and is sponsored by the AHDI.

4230 Kiernan Avenue
Suite 130
Modesto, CA 95356
Phone: Toll Free (800) 982-2182 - Direct (209) 527-9620
Fax: 209-527-9633.
Students should be encouraged to become members of their professional organization, and participate in the state/local chapter activities.

The program should prepare the graduate to take the national examination to become a Registered Medical Transcriptionist. Certification is voluntary and is sponsored by the Association for Healthcare Documentation Integrity (AHDI).

Outcomes 01- 12 are referred to as the Health Information Technology core and do not have to be completed if the students has previously completed the core in another program at any level. The Core should be taken first or concurrently with the first course in the program.

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)

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.

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.

Basic Skills

In a Career Certificate Program offered for 450 hours or more, in accordance with Rule 6A-10.040, F.A.C., the minimum basic skills grade levels required for postsecondary adult career and technical students to complete this program are: Mathematics 9, Language 11, and Reading 11. These grade level numbers correspond to a grade equivalent score obtained on a state designated basic skills examination.

Adult students with disabilities, as defined in Section 1004.02(7), Florida Statutes, may be exempted from meeting the Basic Skills requirements (Rule 6A-10.040). Students served in exceptional student education (except gifted) as defined in s. 1003.01(3) (a), F.S., may also be exempted from meeting the Basic Skills requirement. Each school district and Florida College must adopt a policy addressing procedures for exempting eligible students with disabilities from the Basic Skills requirement as permitted in Section 1004.91(3), F.S.

Students who possess a college degree at the Associate of Applied Science level or higher; who have completed or are exempt from the college entry-level examination; or who have passed a state, national, or industry licensure exam are exempt from meeting the Basic Skills requirement (Rule 6A-10.040, F.A.C.) Exemptions from state, national or industry licensure are limited to the certifications listed on the Basic Skills and Licensure Exemption List which may be accessed from the CTE Program Resources page.

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: **Medical Assisting**
Program Type: **Career Preparatory**
Career Cluster: **Health Science**

Career Certificate Program	
Program Number	H170515
CIP Number	0351080102
Grade Level	30, 31
Standard Length	1300 hours
Teacher Certification	Refer to the **Program Structure** section.
CTSO	HOSA: Future Health Professionals
SOC Codes (all applicable)	31-9092 Medical Assistants 31-9099 Healthcare Support Workers, All Other 43-4171 Receptionists and Information Clerks 31-9097 Phlebotomists
Basic Skills Level	Mathematics: 10 Language: 10 Reading: 10

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 Health Science 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 Health Science career cluster.

This program is designed to prepare students for employment as medical assistants SOC 31-9092.

The content includes but is not limited to communication, transcultural communication in healthcare, interpersonal skills, legal and ethical responsibilities, health-illness concepts, administrative and clinical duties, emergency procedures including CPR and first aid, emergency preparedness, safety and security procedures, medical terminology, anatomy and physiology, and employability 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 a planned sequence of instruction consisting of 5 occupational completion points.

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	HSC0003	Basic Healthcare Worker	MED ASST 7G LAB TECH @7 7G REG NURSE 7 G PRAC NURSE @7 %7%G (Must be a Registered Nurse) TEC MED !7 G	90 hours	31-9099
B	MEA0002	Introduction to Medical Assisting	MED ASST 7G LAB TECH @7 7G REG NURSE 7 G BUS ED 1@2 VOE @7 SECRETAR 7 G CLERICAL @7 7G PRAC NURSE @7 %7%G (Must be a Registered Nurse) TEC MED !7 G	250 hours	31-9092
	MEA0501	Medical Office Procedures		75 hours	43-4171
C	MEA0521	Phlebotomist, MA	MED ASST 7G LAB TECH @7 7G REG NURSE 7 G PRAC NURSE @7 %7%G (Must be a	75 hours	31-9097
D	MEA0543	EKG Aide, MA		75 hours	31-9099
E	MEA0581	Clinical Assisting		230 hours	31-9092
	MEA0530	Pharmacology for Medical Assisting		90 hours	

OCP	Course Number	Course Title	Teacher Certification	Length	SOC Code
	MEA0573	Laboratory Procedures	Registered Nurse) TEC MED !7 G	125 hours	
	MEA0506	Administrative Office Procedures		90 hours	
	MEA0942	Practicum Experience		200 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 knowledge of the healthcare delivery system and health occupations.
02.0 Demonstrate the ability to communicate and use interpersonal skills effectively.
03.0 Demonstrate legal and ethical responsibilities.
04.0 Demonstrate an understanding of and apply wellness and disease concepts.
05.0 Recognize and practice safety and security procedures.
06.0 Recognize and respond to emergency situations.
07.0 Recognize and practice infection control procedures.
08.0 Demonstrate an understanding of information technology applications in healthcare.
09.0 Demonstrate employability skills.
10.0 Demonstrate knowledge of blood borne diseases, including HIV/AIDS.
11.0 Apply basic math and science skills.
12.0 Demonstrate proper use of medical terminology.
13.0 Demonstrate knowledge of legal and ethical responsibilities for medical assistants.
14.0 Demonstrate an understanding of anatomy and physiology concepts in both illness and wellness states.
15.0 Demonstrate basic clerical/medical office duties.
16.0 Demonstrate accepted professional, communication, and interpersonal skills as related to phlebotomy.
17.0 Discuss phlebotomy in relation to the health care setting.
18.0 Identify the anatomic structure and function of body systems in relation to services performed by a phlebotomist.
19.0 Recognize and identify collection reagents supplies, equipment and interfering chemical substances.
20.0 Demonstrate skills and knowledge necessary to perform phlebotomy.
21.0 Practice infection control following standard precautions.
22.0 Practice accepted procedures of transporting, accessioning and processing specimens.
23.0 Practice quality assurance and safety.
24.0 Describe the role of a medical assistant with intravenous therapy in oncology and dialysis.
25.0 Describe the cardiovascular system.
26.0 Identify legal and ethical responsibilities of an EKG aide.
27.0 Perform patient care techniques in the health care facility.
28.0 Demonstrate knowledge of, apply and use medical instrumentation modalities.
29.0 Demonstrate basic office examination procedures.
30.0 Demonstrate knowledge of the fundamentals of microbial control and use aseptic techniques.
31.0 Demonstrate minor treatments.
32.0 Demonstrate knowledge of basic diagnostic medical assisting procedures.
33.0 Demonstrate basic radiology procedures.
34.0 Demonstrate knowledge of pharmaceutical principles and administer medications.
35.0 Perform CLIA-waived diagnostic clinical laboratory procedures.
36.0 Demonstrate knowledge of emergency preparedness and protective practices.
37.0 Perform administrative office duties.

38.0 Perform administrative and general skills.
39.0 Perform clinical and general skills.
40.0 Display professional work habits integral to medical assisting.

Florida Department of Education
Student Performance Standards

Program Title: Medical Assisting
Career Certificate Program Number: H170515

The **Basic Health Care Worker (HSC0003)** is referred to as the **Health Science Core** and is the first OCP in the majority of the Career Certificate Program health science programs. Secondary and Postsecondary students completing the health science core will not have to repeat the core in any other health science program in which it is a part. When the recommended sequence is followed, the structure allows students to complete at specified points for employment or remain for advanced training or cross-training.

Career Certificate Program Course Number: HSC0003 **Occupational Completion Point: A** **Basic Healthcare Worker – 90 Hours – SOC Code 31-9099**

To ensure consistency whenever these courses are offered, the health science core standards (1-11) have been placed in a separate document.

Course Number: MEA0002 **Occupational Completion Point: B** **Introduction to Medical Assisting – 250 Hours – SOC Code 43-4171**	
12.0	Demonstrate proper use of medical terminology. – The student will be able to:
	12.01 Use medical terminology as appropriate for a medical assistant.
	12.02 Identify medical terms labeling the word parts.
	12.03 Define medical terms and abbreviations related to all body systems.
13.0	Demonstrate knowledge of legal and ethical responsibilities for medical assistants. – The student will be able to:
	13.01 Describe the role of the medical assistant.
	13.02 Understand the importance of order entry as it relates to certification of the medical assistant.
	13.03 Provide health care as set forth in Florida Statute 458.3485 for the medical assistant.
	13.04 Distinguish between the liability of the physicians and staff members in the medical office.
	13.05 Explain the principles for preventing medical liability.
	13.06 List the principles in the Codes of Ethics for Medical Assistants as stated by the American Association of Medical Assistants.

14.0	Demonstrate an understanding of anatomy and physiology concepts in both illness and wellness states. – The student will be able to:
14.01	Define the terms Anatomy and Physiology
14.02	Define both medical terms and abbreviations related to all body systems.
14.03	Define the principle directional terms, planes, quadrants and cavities used in describing the body and the association of body parts to one another.
14.04	Define the levels of organization of the body inclusive of, but not limited to, cells, organs and body systems.
14.05	Describe the function of the 11 major organ systems of the body (1) Integumentary, (2) skeletal, (3) muscular, (4) Nervous, (5) endocrine, (6) circulatory (cardiovascular) (7) lymphatic, (8) respiratory, (9) digestive, (10) urinary, and (11) reproductive.
14.06	Describe symptoms and common disease pathology related to each body system and the relationship of the disease process to other body systems.
14.07	Discuss diagnostic options to identify common disease pathology and corresponding basic treatment.
14.08	Compare structure and function of the body across the life span.

Course Number: MEA0501 **Occupational Completion Point: B** **Medical Office Procedures – 75 Hours – SOC Code 43-4171**	
15.0	Demonstrate basic clerical/medical office duties. – The student will be able to:
15.01	Perform effective communication skills essential to the medical office.
15.02	Maintain filing systems.
15.03	Operate office equipment and perform clerical office procedures.
15.04	Discuss principles of using electronic health record (EHR).
15.05	Prepare and maintain medical records both manually and within the electronic health record (EHR).
15.06	Screen and process mail.
15.07	Schedule routine appointments and patient admissions and/or procedures both manually and within the electronic health record (EHR).
15.08	Adhere to current government regulations, risk management and compliance within the scope of practice of a medical assistant practicing in the State of Florida.
15.09	Maintain office inventory.
15.10	Inform patients of office policies both verbally and written.

15.11	Perform general housekeeping duties.
15.12	Perform daily office activities both manually and within the electronic health record (EHR).
15.13	Receive patients and visitors.
15.14	Identify and maintain office security policies/procedures.

Course Number: MEA0521 **Occupational Completion Point: C** **Phlebotomist, MA – 75 Hours – SOC Code 31-9097**	
16.0	Demonstrate accepted professional, communication, and interpersonal skills as related to phlebotomy. – The student will be able to:
16.01	Demonstrate the appropriate professional behavior of a phlebotomist.
16.02	Explain to the patient the procedure to be used in specimen collection.
16.03	Explain in detail the importance of identifying patients correctly when drawing blood.
16.04	Describe the scope of practice for a phlebotomist.
16.05	List and describe professional organizations that provide accreditation, certification, and licensure to phlebotomists and phlebotomy programs.
16.06	Explain the importance of continuing education in relation to certification to maintain competency and skills.
17.0	Discuss phlebotomy in relation to the health care setting. – The student will be able to:
17.01	List, classify and discuss various departments and services within the health care setting with which the phlebotomist must interact to obtain laboratory specimens from patients.
17.02	Identify the major departments/sections within the clinical laboratory, the major types of procedures run in each department/section, and their specimen requirements.
17.03	Describe roles of the major classifications of clinical laboratory personnel (i.e., pathologist, chief/administrative technologist, CLS, MLS, MLT, MT, phlebotomist, lab assistant, etc.).
18.0	Identify the anatomic structure and function of body systems in relation to services performed by a phlebotomist. – The student will be able to:
18.01	Describe and define major body systems with emphasis on the circulatory system.
18.02	List and describe the main superficial veins used in performing venipuncture.
18.03	Locate the most appropriate site(s) for both capillary and venipuncture.
18.04	Describe the function of the following blood components: erythrocytes, thrombocytes, leukocytes and plasma.

18.05	Compare and contrast between serum and plasma as it relates to blood collection.
18.06	Discuss hemostasis as it relates to blood collection.
19.0	Recognize and identify collection reagents supplies, equipment and interfering chemical substances. – The student will be able to:
19.01	Identify and discuss proper use of appropriate types of equipment needed to collect various clinical laboratory blood specimens by venipuncture.
19.02	Explain the special precautions and types of equipment needed to collect blood from a pediatric patient.
19.03	Identify and discuss proper use of supplies used in collecting short-draw specimens or difficult draws.
19.04	Identify and discuss the proper use of the various types of anticoagulants, preservatives and gels used in blood collection and the vacuum tube color-codes for these additives.
19.05	Describe the types of specimens that are analyzed in the clinical laboratory and the phlebotomist's role in collecting and/or transporting these specimens to the laboratory.
19.06	Describe substances potentially encountered during phlebotomy which can interfere in analysis of blood constituents.
19.07	Define and utilize correct medical terminology and metric measurement needed for specimen collection.
20.0	Demonstrate skills and knowledge necessary to perform phlebotomy. – The student will be able to:
20.01	Follow approved procedure for completing a laboratory requisition form.
20.02	Recognize a properly completed requisition.
20.03	Demonstrate knowledge of established protocol for patient and specimen identification.
20.04	Discuss appropriate methods for facilitating and preparing the patient for capillary and venipuncture collection.
20.05	List appropriate antiseptic agents useful in preparing sites for capillary and venipuncture.
20.06	Perform venipuncture by evacuated tube, butterfly, and syringe systems, demonstrating appropriate use of supplies, proper handling of equipment and specimens, and appropriate patient care.
20.07	Describe the correct order of draw.
20.08	Describe the use of barcoding systems used for specimen collection.
20.09	Perform a capillary puncture using appropriate supplies and techniques for both adults and pediatric patients.
20.10	Describe the most common complications associated with capillary and venipuncture, their causes, prevention and treatment.
20.11	Recognize and respond to possible adverse patient reactions such as allergies, convulsions, syncope, light headedness, vomiting, and nerve involvement.
20.12	Perform appropriate procedures for disposing of used or contaminated capillary and venipuncture supplies.

	20.13 Perform appropriate techniques for making a peripheral blood smear for hematologic evaluation.
	20.14 Demonstrate the proper procedure for collecting blood cultures.
	20.15 Discuss the effects of hemolysis and methods of prevention.
	20.16 Demonstrate a working understanding of how age and weight of patients impacts the maximum amount of blood that can be safely drawn.
21.0	Practice infection control following standard precautions. – The student will be able to:
	21.01 Define the term hospital acquired infection.
	21.02 Describe and practice procedures for infection prevention including hand washing skills.
	21.03 Discuss transmission based precautions.
	21.04 Identify potential routes of infection and their complications.
22.0	Practice accepted procedures of transporting, accessioning and processing specimens. – The student will be able to:
	22.01 Demonstrate good laboratory practice for preparation and processing (e.g. centrifugation, separation, aliquoting, labeling, and storage) of serum, plasma, urine, sputum, stool, and wound culture specimens.
	22.02 Demonstrate knowledge of accessioning procedures.
	22.03 Describe the significance of time constraints for specimen collection and delivery.
	22.04 Describe routine procedures for transporting and processing specimens including DOT packaging requirements.
	22.05 Follow protocol for accepting verbal test orders and explain procedure for obtaining signature or other form of authentication of verbal orders.
23.0	Practice quality assurance and safety. – The student will be able to:
	23.01 Distinguish and perform procedures which ensure reliability of test results when collecting blood specimens.
	23.02 Practice appropriate patient safety.
	23.03 Practice safety in accordance with OSHA (state & federal guidelines) for chemical, biological, and PPE established procedures including proper disposal of sharps and biohazardous materials.
	23.04 Follow documentation procedures for work related accidents.
	23.05 Implement appropriate Joint Commission patient safety goals and other accrediting/regulatory agency guidelines.
24.0	Describe the role of a medical assistant with intravenous therapy in oncology and dialysis. – The student will be able to:
	24.01 Outline the principles of intravenous therapy.

	24.02 Understand intravenous terminology, practices, and equipment.
	24.03 Describe the dangers of intravenous treatment.
	24.04 Describe the role of the medical assistant in assisting with intravenous therapy.

Course Number: MEA0543 **Occupational Completion Point: D** **EKG Aide, MA – 75 Hours – SOC Code 31-9099**	
25.0	Describe the cardiovascular system. – The student will be able to:
	25.01 Locate the heart and surrounding structures.
	25.02 Diagram and label the parts of the heart and list the functions of each labeled part.
	25.03 Trace the flow of blood through the cardiopulmonary system.
26.0	Identify legal and ethical responsibilities of an EKG aide. – The student will be able to:
	26.01 Recognize and practice legal and ethical responsibilities as they relate to an EKG aide.
	26.02 Maintain a safe and efficient work environment.
	26.03 Maintain EKG equipment so it will be safe and accurate.
27.0	Perform patient care techniques in the health care facility. – The student will be able to:
	27.01 Describe the physical preparation of the patient for EKG testing.
	27.02 Identify patient and verify the requisition order.
	27.03 Prepare patient for EKG testing.
	27.04 State precautions required when performing an EKG.
28.0	Demonstrate knowledge of, apply and use medical instrumentation modalities. – The student will be able to:
	28.01 Calibrate and maintain EKG equipment in the work environment.
	28.02 Identify three types of lead systems (standard/limb, augmented, and precordial/chest).
	28.03 State Einthoven's triangle.
	28.04 Demonstrate proper lead placement including lead placement with special consideration for various patients with special needs.

28.05	Demonstrate knowledge of the application of a Holter Monitor and provide patient education of its use.
28.06	Identify artifacts and mechanical problems.
28.07	Perform a 12 lead EKG.
28.08	Perform a rhythm strip.
28.09	Recognize normal sinus rhythm.
28.10	Report any dysrhythmias that are not normal sinus rhythm.
28.11	Recognize a cardiac emergency as seen on the EKG.
28.12	Use documentation skills to identify electrocardiographs.

Course Number: MEA0581 **Occupational Completion Point: E** **Clinical Assisting – 230 Hours – SOC Code 31-9092**	
29.0	Demonstrate basic office examination procedures. – The student will be able to:
29.01	Prepare patients for and assist the physician with physical examinations including, but not limited to, pre and post-natal, male and female reproductive, rectal, and pediatric.
29.02	Measure and record vital signs, recognizing abnormalities and danger signs.
29.03	Measure and record a pulse pressure
29.04	Measure and record an apical pulse.
29.05	Measure and record a orthostatic blood pressure
29.06	Record patient data.
29.07	Instruct patient on breast and testicular self-examinations.
29.08	Assist with pediatric procedures, including, but not limited to, weighing, measuring, and collecting specimens.
29.09	Instruct patients regarding health care and wellness practices including but not limited to dietary guidelines necessary for common diseases.
29.10	Create a patient teaching plan which addresses dietary guidelines and special needs.
29.11	Explore and utilize the U.S. Department of Agricultures “My Plate” Food Guide.

	29.12 Prepare patients for diagnostic procedures.
30.0	Demonstrate knowledge of the fundamentals of microbial control and use aseptic techniques. – The student will be able to:
	30.01 Demonstrate competence in sanitation, disinfection, and sterilization.
	30.02 Identify common instruments.
	30.03 Sterilize and maintain instruments and supplies.
	30.04 Sanitize instruments.
	30.05 Wrap articles for autoclave.
	30.06 Sterilize articles in autoclave.
	30.07 Chemically disinfect articles.
	30.08 Practice infection control and contamination prevention.
	30.09 Safely handle contaminated equipment and supplies.
	30.10 Create and maintain sterile fields for dressings and minor surgery.
	30.11 Prepare for minor surgical procedures including surgical hand wash and applying sterile gloves.
	30.12 Remove sutures and staples.
	30.13 Correctly dispose of contaminated materials.
31.0	Demonstrate minor treatments. – The student will be able to:
	31.01 Perform minor treatments as directed by the physician including hot and cold therapy, (which includes, but is not limited to the following: hot water bag, heating pad, hot soaks and compresses, ice bag, cold compresses and packs).
	31.02 Assist the physician with examination, treatment, and/or minor surgery.
	31.03 Organize examination and treatment areas before, during, and after patient care.
	31.04 Perform orthopedic procedures, including but not limited to the following: crutch measurements and instruction in use of canes, crutches, walkers, and wheelchairs.
	31.05 Demonstrate the knowledge of casting procedures and supplies.
	31.06 Apply all types of roller bandages using turns as appropriate.
	31.07 Perform eye irrigations and instillations.

	31.08 Perform ear irrigations and instillations.
32.0	Demonstrate knowledge of basic diagnostic medical assisting procedures. – The student will be able to:
	32.01 Perform visual and auditory screening.
	32.02 Perform spirometry.
	32.03 Perform oximetry.
	32.04 Assist in the performance of a pap and pelvic exam.
33.0	Demonstrate basic radiologic procedures. – The student will be able to:
	33.01 Describe the basic operation of radiology equipment and accessories.
	33.02 Describe how to maintain x-ray film files.
	33.03 Describe computed and digital radiography systems.
	33.04 Educate patients in preparation for radiological exams.
	33.05 Demonstrate knowledge of ultrasound treatment.

Course Number: MEA0530 Occupational Completion Point: E Pharmacology for Medical Assisting – 90 Hours – SOC Code 31-9092	
34.0	Demonstrate knowledge of pharmaceutical principles and administer medications. – The student will be able to:
	34.01 Identify commonly administered drugs, their uses, and effects.
	34.02 Identify the major classifications of medications for each body system including, indications for use, side effects, and adverse reactions.
	34.03 Use correct pharmaceutical abbreviations and terminology.
	34.04 Identify various methods and routes of drug administration.
	34.05 Instruct patients regarding self-administration of medications.
	34.06 Calculate dosage and administer pharmaceuticals to correct anatomical sites, to correct patient, by correct route of administration, at the correct time, and document correctly.
	34.07 Demonstrate knowledge of the legal and ethical standards related to the administration and the dispensing of drugs in the office setting under the doctor's supervision.

34.08	Demonstrate knowledge of emergency medications for first aid.
34.09	Identify the dangers and complications associated with drug administration
34.10	Recognize and report medication errors.
34.11	Demonstrate appropriate techniques to:
34.11.01	Prepare and administer non-parenteral medications (solid, liquids, and inhalers).
34.11.02	Prepare and administer parenteral medications.
34.11.03	Reconstitute powdered drugs.
34.11.04	Prepare injections from ampules and vials.
34.11.05	Apply the Seven Rights of Drug Administration

Course Number: MEA0573 **Occupational Completion Point: E** **Laboratory Procedures – 125 Hours – SOC Code 31-9092**	
35.0	Perform CLIA-waived diagnostic clinical laboratory procedures. -- The students will be able to:
35.01	Comply with safety signs, symbols, and labels.
35.02	Recognize signs and symptoms that may indicate to the physician a need for laboratory testing.
35.03	Describe the criteria used by Food and Drug Administration (FDA) to classify a test as “CLIA waived” and the regulatory constraints on test performance.
35.04	Explain the methods of quality control for CLIA-waived testing, identify acceptable and unacceptable control results, and describe specific corrective action required when results are unacceptable.
35.05	Demonstrate proper technique for the collection of urine, capillary whole blood (finger/heel stick), culture material (throat/nasal swab) and other specimen types required for CLIA-waived tests.
35.06	Instruct patients in the proper collection of urine (clean catch, mid-stream), sputum, and stool specimens.
35.07	Perform CLIA-waived occult blood tests.
35.08	Perform CLIA-waived urinalysis testing including color and turbidity assessment and reagent test strips.
35.09	Perform CLIA-waived hematology tests (e.g. - hemoglobin, hematocrit).
35.10	Perform CLIA-waived chemistry tests (e.g. - glucose, cholesterol).

	35.11 Perform CLIA-waived pregnancy tests.
	35.12 Perform CLIA-waived infectious disease testing (e.g. – strep screen, mono test, influenza A/B).
36.0	Demonstrate knowledge of emergency preparedness and protective practices. -- The student will be able to:
	36.01 Maintain and operate emergency equipment and supplies.
	36.02 Participate in a mock environmental exposure event and document steps taken.
	36.03 Explain an evacuation plan for a physician's office.
	36.04 Maintain a current list of community resources for emergency preparedness.

Course Number: MEA0506 **Occupational Completion Point: E** **Administrative Office Procedures– 90 Hours – SOC Code 31-9092**	
37.0	Perform administrative office duties. – The student will be able to:
	37.01 Execute data management using Electronic Health Record (EHR) including, but not limited to, patient registration, appointment scheduling, charting, billing and insurance processing, procedure and diagnostic coding, ordering and monitoring patient testing, medication and prescription orders, keyboarding and correspondence, and performing an office inventory.
	37.02 Execute non EHR data management including, but not limited to, selecting appropriate procedure and diagnostic codes, process insurance data and claims, develop and maintain billing and collection systems.
	37.03 Perform various financial procedures, including, but not limited to, billing and collection procedures, payroll procedures, and checkbook procedures.
	37.04 Demonstrate knowledge of management in a medical office including but not limited to personnel records, interviewing, various management styles, risk management, and conflict resolution.

Course Number: MEA0942
Occupational Completion Point: E
Practicum Experience – 200 Hours – SOC Code 31-9092

This "Practicum" experience is a supervised, unpaid activity of **a total of 200 hours** of which 160 contact hours must be in an ambulatory health care setting and no more than 40 hours in a simulated laboratory setting performing administrative and clinical procedures and must be completed prior to graduation. Students ready for the Practicum experience have completed all other program requirements and are eligible for this final phase in the program.

The program should ensure that the experience and instruction of students are meaningful and parallel in content and concept with the material presented in lecture and laboratory sessions. Sites should be selected so that each student is afforded a variety of experiences, while at the same time all students are provided consistent learning opportunities.

This experience provides an opportunity for students to utilize both administrative and clinical skills learned in the Medical Assistant classroom and clinical environment in a local clinic, physician's office, or other health care facility. The students Practicum should be performed in a professional environment under conditions of strict supervision and guidance of a licensed physician and clinical coordinator. An individual who has knowledge of the medical assisting profession must provide on-site supervision of the student. When performed in the stimulated laboratory all activities must be under the supervision of the medical assisting program/practicum coordinator or faculty. The content for any simulated laboratory activity will be at the discretion of each individual learning institution to best meet the need of its students. The actual hands-on experiences will tie-in all the educational components based on theory and competency based instruction that the student learned in the laboratory and classroom setting. This course is set to assess the student in their ability to utilize all critical thinking applications learned during the program and to apply these critical thinking skills during the Practicum experience. The healthcare facility and the learning college/institute will expect the student to utilize good work ethics, show excellent civic responsibilities, and further learn to both embrace and respect cultural diversity.
38.0 Perform administrative and general skills. – The student will be able to:
38.01 Understand proper and professional telephone technique.
38.02 Recognize and respond to verbal communication.
38.03 Recognize and respond to non-verbal communication.
38.04 Maintain confidentiality and adhere to HIPAA regulations.
38.05 Understand how to document manually and electronically appropriately.
38.06 Understand how to schedule appointments manually and electronically accurately.
38.07 Understand how to schedule inpatient and/or outpatient procedures accurately.
38.08 Greet patients courteously and professionally.
38.09 Demonstrate safety and quality assurance in the workplace.
39.0 Perform clinical and general skills. – The student will be able to:
39.01 Demonstrate aseptic hand washing technique.
39.02 Dispose of bio-hazardous waste in appropriate containers.
39.03 Adhere to sterilization techniques according to standards.

	39.04 Practice standard precautions.
	39.05 Stage patients and obtain vital signs.
	39.06 Obtain patient histories.
	39.07 Prepare and maintain examination and treatment area(s).
	39.08 Prepare patient for examinations and/or minor office procedures.
	39.09 Assist with examinations and/or minor office procedures.
	39.10 Provide and document patient education.
40.0	Display professional work habits integral to medical assisting. – The student will be able to:
	40.01 Communicate appropriately in healthcare settings by listening, writing, speaking and presenting with professional demeanor.
	40.02 Collaborate, communicate and interact professionally with other healthcare professionals utilizing technology.
	40.03 Contribute to team efforts by fulfilling responsibilities and valuing diversity.
	40.04 Exercise proper judgment and critical thinking skills in decision making.
	40.05 Adapt to changing organizational environments with flexibility.
	40.06 Report as expected, on time, appropriately dressed and groomed and ready to work.
	40.07 Model acceptable work habits as defined by company policy.
	40.08 Complete and follow through on tasks using time management skills and take initiative as warranted.
	40.09 Respond appropriately and quickly to patient's needs and concerns.
	40.10 Practice etiquette and social sensitivity in face to face interaction, on the telephone and the Internet.
	40.11 Actively adhere to policies and procedures that protect the patient's confidentiality and privacy.
	40.12 Understand resources related to patients' healthcare needs.

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

Although it is not required, it is strongly recommended that the programs meet the Standards and Guidelines of an Accredited Educational Program for the Medical Assistant adopted by the American Association of Medical Assistants and the Commission on Accreditation of Allied Health Education Programs (CAAHEP) or the American Medical Technologist and the Accrediting Bureau of Health Education Schools (ABHES).

For further information contact:

Commission on Accreditation of Allied Health Education Programs (CAAHEP)
1361 Park Street
Clearwater, FL 33756
Phone: 727-210-2350
Fax: 727-210-2354

Accrediting Bureau of Health Education Schools (ABHES)
777 Leesburg Pike, Suite 312
N. Falls, VA 22043
(703) 917-9503

This Program Will Also Be In Accordance With Florida Statute Medical Assistants, 458.3485 F.S.

This program meets the Department of Health's education requirements for HIV/AIDS, Domestic Violence and Prevention of Medical Errors. Although not a requirement for initial licensure, it is a requirement for renewal, therefore the instructor may provide a certificate for renewal purposes to the student verifying these requirements have been met.

If students in this program are seeking a licensure, certificate or registration through the Department of Health, please refer to 456.0635 F.S. for more information on disqualification for a license, certificate, or registration through the Department of Health.

Program completers of a CAAHEP or ABHES accredited program are eligible to take the American Association of Medical Assistants' Certification Examination (CMA) or the American Medical Technologists' Certification Examination (RMA). For further information contact:

American Association of Medical Assistants (AAMA)
20 North Wacker Drive, Suite 1575
Chicago, Illinois 60606 (312/899-1500)
Or
American Medical Technologist (AMT)
10700 West Higgins Road, Suite 150
Rosemont, Illinois 60018 (800 275-1268)

Outcomes 01-11 are referred to as the Health Science Core and do not have to be completed if the student has previously completed the Core in another health occupations program at any level. The Core should be taken first or concurrently with the first course in the program. Following the successful completion of the core, the student is eligible to take the National Health Care Foundation Skill Standards Assessment with instructor approval and the completion of a portfolio.

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)

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.

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.

Basic Skills

In a Career Certificate Program offered for 450 hours or more, in accordance with Rule 6A-10.040, F.A.C., the minimum basic skills grade levels required for postsecondary adult career and technical students to complete this program are: Mathematics 10, Language 10, and Reading 10. These grade level numbers correspond to a grade equivalent score obtained on a state designated basic skills examination.

Adult students with disabilities, as defined in Section 1004.02(7), Florida Statutes, may be exempted from meeting the Basic Skills requirements (Rule 6A-10.040). Students served in exceptional student education (except gifted) as defined in s. 1003.01(3) (a), F.S., may also be exempted from meeting the Basic Skills requirement. Each school district and Florida College must adopt a policy addressing procedures for exempting eligible students with disabilities from the Basic Skills requirement as permitted in Section 1004.91(3), F.S.

Students who possess a college degree at the Associate of Applied Science level or higher; who have completed or are exempt from the college entry-level examination; or who have passed a state, national, or industry licensure exam are exempt from meeting the Basic Skills requirement

(Rule 6A-10.040, F.A.C.) Exemptions from state, national or industry licensure are limited to the certifications listed on the Basic Skills and Licensure Exemption List which may be accessed from the CTE Program Resources page.

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: **Medical Coder/Biller**
Program Type: **Career Preparatory**
Career Cluster: **Health Science**

Career Certificate Program	
Program Number	H170529
CIP Number	0351070716
Grade Level	30, 31
Standard Length	1110 hours
Teacher Certification	Refer to the **Program Structure** section.
CTSO	HOSA: Future Health Professionals
SOC Codes (all applicable)	29-2071 Medical Records and Health Information Technicians 29-2099 Health Technologists and Technicians, All Other
Basic Skills Level	Mathematics: 9 Language: 11 Reading: 11

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 Health Science 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 Health Science career cluster.

The program is designed to prepare students for employment in a variety of health care settings as entry level coder, medical record coder, coding technician, or coding clerks, or medical coder/biller or SOC Code 29-2071(Medical Records and Health Information Technicians).

The content includes but is not limited to medical terminology, anatomy and physiology, coding systems, fundamentals of disease process including pharmacology, health care delivery systems, basics of medical records services, ethical and legal responsibilities, safety/security procedures, basic data processing, and employability 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 a planned sequence of instruction consisting of 2 occupational completion points.

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	HIM0009	Introduction to Health Information Technology	CER COD SP 7 G MED RECTEC 7G MED ASST 7G MED TRANS 7G	90 hours	29-2099
B	HIM0091	Medical Coder/Biller I		350 hours	29-2071
	HIM0092	Medical Coder/Biller II		350 hours	
	HIM0093	Medical Coder/Biller III		320 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 an understanding of healthcare organizations and health occupations.
02.0 Demonstrate the ability to communicate and use interpersonal skills effectively.
03.0 Explore health informatics as an allied health profession.
04.0 Demonstrate an understanding of health data concepts.
05.0 Identify the functions of a health record.
06.0 Demonstrate an understanding of Health Information Technology.
07.0 Discuss classification systems, clinical vocabularies and terminologies.
08.0 Evaluate ethical issues in Health Information Professions.
09.0 Demonstrate compliance with laws, regulations, and standards that impact healthcare.
10.0 Apply policies, regulations, and standards to the management of information associated with treatment, payment, and operations (TPO).
11.0 Demonstrate computer knowledge and skills.
12.0 Demonstrate employability skills.
13.0 Describe the anatomy and physiology of the human body.
14.0 Demonstrate proficiency in the application of medical terminology.
15.0 Demonstrate an understanding of the fundamentals of disease process in relationship to the human body, including pharmacology.
16.0 Demonstrate proficiency in the use of ICD and HCPCS/CPT coding systems, both manual and automated.
17.0 Perform coding complexities proficiently.
18.0 Explain the significance of health information services as it relates to the medical coder/biller.
19.0 Demonstrate professional and ethical behavior of a medical coder/biller.
20.0 Perform healthcare revenue cycle management processes.

Florida Department of Education
Student Performance Standards

Program Title: Medical Coder/Biller
Career Certificate Program Number: H170529

Course Number: HIM0009 **Occupational Completion Point: A** **Introduction to Health Information Technology – 90 Hours – SOC Code 29-2099**	
01.0	Demonstrate an understanding of the healthcare organizations and health occupations. – The student will be able to:
01.01	Discuss the evolution of healthcare.
01.02	Demonstrate an understanding of the infrastructure of healthcare in the United States.
01.03	Discuss healthcare regulatory agencies and organizations.
01.04	Recognize levels of education, credentialing requirements, employment opportunities, workplace environments, and career growth potential.
01.05	Differentiate the roles of various providers and disciplines throughout the continuum of healthcare and respond to their information needs.
02.0	Demonstrate the ability to communicate and use interpersonal skills effectively. – The student will be able to:
02.01	Develop basic speaking and active listening skills with meaningful feedback.
02.02	Develop basic observational skills and related documentation strategies in written and oral form.
02.03	Identify characteristics of successful and unsuccessful communication including barriers.
02.04	Respond to verbal and non-verbal cues.
02.05	Compose written communication including emails using correct spelling, grammar, formatting and confidentiality.
02.06	Demonstrate ability to create professional correspondence using appropriate email practices and etiquette.
02.07	Use appropriate medical terminology and abbreviations.
02.08	Model the importance of courtesy and respect for patients and other healthcare workers and maintain good interpersonal relationships.
02.09	Provide health information education to internal/external stakeholders.
02.10	Adapt communication skills to varied levels of understanding and cultural orientation including diverse age, cultural, economic,

	ethnic, and religious groups.
02.11	Distinguish between and identify subjective and objective information.
03.0	Explore health information as an allied health profession. – The student will be able to:
03.01	Discuss the history of health information management.
03.02	Discuss the professional opportunities within the health information professions.
03.03	Demonstrate knowledge of professional associations applicable to the field of health information.
04.0	Demonstrate an understanding of health data concepts. – The student will be able to:
04.01	Describe the various uses of primary and secondary health data and data sets.
04.02	Identify various characteristics of health data quality and standards.
05.0	Identify the functions of a health record. – The student will be able to:
05.01	Demonstrate an understanding of the various formats of the health record.
05.02	Explain the various uses of a health information as it relates to treatment, payment, and operations (TPO).
06.0	Demonstrate an understanding of Health Information Technology. – The student will be able to:
06.01	Discuss how changing regulations and technology impact the health information field.
06.02	Interpret information from health information systems and applications in healthcare.
06.03	Demonstrate an understanding of creation, use, storage, retrieval, and exchange of health data.
07.0	Discuss classification systems, clinical vocabularies and terminologies. – The student will be able to:
07.01	Explain the use of classification systems, clinical vocabularies, and terminologies as they relate to Health Information Management and nomenclatures.
08.0	Evaluate ethical issues in Health Information Professions. – The student will be able to:
08.01	Describe the code of ethics consistent with healthcare occupations.
08.02	Analyze ethical issues related to health information.
08.03	Manage ethical issues related to coding and billing/ healthcare documentation.
09.0	Demonstrate compliance with laws, regulations, and standards that impact healthcare. – The student will be able to:

	09.01 Promote the importance of maintaining ethical and legal standards in compilation and usage of health information.
	09.02 Identify all laws and standards that impact health information including the Health Insurance Portability and Accountability Act (HIPAA).
	09.03 Explain the composition of the legal health record.
	09.04 Apply health information policies and procedures for privacy, confidentiality, and security.
	09.05 Articulate legal terms and processes that impact healthcare.
10.0	Apply policies, regulations, and standards to the management of information associated with treatment, payment, and operations (TPO). – The student will be able to:
	10.01 Describe how to adapt workflow necessitated by regulatory change.
	10.02 Demonstrate knowledge of policies and procedures for access and disclosure of protected health information to authorized users.
	10.03 Adhere to appropriate and applicable accrediting agency guidelines.
11.0	Demonstrate computer knowledge and skills. – The student will be able to:
	11.01 Demonstrate the ability to create, manage, organize, attach, and retrieve files.
	11.02 Demonstrate ability to connect to and perform research on the internet by identifying reliable reputable websites.
	11.03 Demonstrate proficiency in word processing, spreadsheets, and presentation software.
	11.04 Demonstrate the ability to install software programs.
	11.05 Demonstrate knowledge of safe computer practices and security procedures including but not limited to encryption, passwords and biometrics.
12.0	Demonstrate employability skills. – The student will be able to:
	12.01 Identify and exemplify personal traits or attitudes desirable in a member of the healthcare team.
	12.02 Model professional standards of healthcare workers as they apply to hygiene, dress, language, confidentiality and behavior (i.e. courtesy and self-introductions).
	12.03 Identify documents that may be required when applying for a job.
	12.04 Perform the process to obtain employment: job search, cover letter, resume, application, and thank you letter.
Course Number: HIM HIM0091 Occupational Completion Point: B Medical Coder/Biller I – 350 Hours – SOC Code 29-2071	
13.0	Describe the anatomy and physiology of the human body. – The student will be able to:

	13.01 Describe the structure and function of the respiratory system.
	13.02 Describe the structure and function of the circulatory system.
	13.03 Describe the structure and function of the musculoskeletal & connective tissue system.
	13.04 Describe the structure and function of nervous and sensory systems.
	13.05 Describe the structure and function of the reproductive system.
	13.06 Describe the structure and function of the urinary system.
	13.07 Describe the structure and function of the digestive system.
	13.08 Describe the structure and function of the endocrine system.
	13.09 Describe the structure and function of the integumentary system.
	13.10 Describe major psychiatric disorders.
14.0	Demonstrate proficiency in the application of medical terminology. – The student will be able to:
	14.01 Identify word parts of medical terminology in daily use.
	14.02 Build, spell and pronounce correctly, appropriate terms from word parts learned and be able to give the meaning of the word.
	14.03 Identify word parts and be able to build, spell and understand new words with those parts.
	14.04 Spell and use medical abbreviations.
	14.05 Identify terminology specific to healthcare settings including surgical, medical, and therapeutic.
	14.06 Apply medical reference sources.
15.0	Demonstrate an understanding of the fundamentals of disease process in relationship to the human body, including pharmacology. – The student will be able to:
	15.01 Demonstrate an understanding of the predisposing factors and direct causes of disease as they relate to the human body.
	15.02 Demonstrate an understanding of the general pathogenesis and morphology of disease and its role in the disease process.
	15.03 Demonstrate an understanding of pharmacological agents, uses, treatments, and utilizing drug reference sources.
	15.04 Identify and use diagnostic test terminology.

Course Number: HIM HIM0092
Occupational Completion Point: B
Medical Coder/Biller II – 350 Hours – SOC Code 29-2071

16.0	Demonstrate proficiency in use of ICD and HCPCS/CPT coding systems, both manual and automated. – The student will be able to:
16.01	Apply conventions and guidelines used in coding.
16.02	Describe the process to update coding resources.
16.03	Assign and/or verify diagnosis, procedure, HCPCS level II codes, and applicable modifiers and groupings in accordance with official guidelines.
16.04	Utilize ICD-CM, ICD-PCS, CPT (all sections), and HCPSC Level II code sets to assign diagnosis and procedure codes to intermediate and advanced case studies and authentic health records/abstracts.
16.05	Describe components of revenue cycle management and clinical documentation improvement including quality indicators as it relates to coding.
16.06	Identify any discrepancies, incomplete information, and/or poor documentation practices in relation to coding while following appropriate departmental policies for correcting errors or improving documentation practices.
17.0	Perform coding complexities proficiently. – The student will be able to:
17.01	Apply advanced coding concepts to complex authentic health records/abstracts and/or case studies across the continuum of care.
17.02	Analyze case-mix, severity of illness systems, and coding quality monitors and reporting.
17.03	Utilize a variety of simulated patient records from across the continuum of care, interpret data, and assign and/or verify codes.
17.04	Analyze the various classification systems.
18.0	Explain the significance of health information services as it relates to the medical coder/biller. – The student will be able to:
18.01	Describe the functions of a health information management department and how this department interacts with the medical coder/biller.
18.02	Describe the development of the health record to include all types used in the current industry.
18.03	Explain the importance of the health record in relation to state and federal agencies, including compliance area.
Course Number: HIM HIM0093 Occupational Completion Point: B Medical Coder/Biller III – 320 Hours – SOC Code 29-2071	
19.0	Demonstrate professional and ethical behavior of a medical coder/biller. – The student will be able to:
19.01	Explain the scope of work of the Medical Coder/Biller.
19.02	Demonstrate ethical coding practices as outlined by professional associations.
20.0	Perform healthcare revenue cycle management processes. – The student will be able to:
20.01	Prepare and submit applicable payer claims.

20.02	Analyze various payer types.
20.03	Perform patient accounting functions including claims, denials, rejections, appeals, collections, and payment resubmission using applicable software.
20.04	Describe characteristics of reimbursement methodology systems across the continuum of care.
20.05	Analyze charge master and superbill maintenance.
20.06	Understand compliance strategies and reporting as well as regulatory guidelines.

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

Students should be encouraged to become members and participate in the activities of the professional organizations: American Health Information Management Association and/or American Academy of Procedural Coders.

About AHIMA Credentials:
Completers of the Medical Biller Coder program may take the Certified Coding Associate (CCA) credential exam as the first step in their coding career. The CCA is an entry-level credential that distinguishes new coders in the job market. Individuals with a CCA credential:

- Exhibit a level of commitment, competency, and professional capability usually absent in a newcomer to the field
- Demonstrate a commitment to the coding profession
- Distinguish themselves from non-credentialed coders and those holding credentials from other organizations less demanding of the higher level of expertise required to earn AHIMA certification.

The CCA should be viewed as the starting point for an individual entering a career as a coder. The AHIMA CCS and CCS-P exams demonstrate mastery level skills in coding. Most individuals challenge the CCS or CCS-P exams after two or more years of work experience in coding.
American Health Information Management Association
919 North Michigan Ave. Suite 2150
Chicago, IL. 60611-5519
312/233-1100

The American Academy of Professional Coders (AAPC) sponsors a certification exam for coders with expertise in physician-based settings which leads to the title of Certified Professional Coder (CPC) or Certified Professional Coder Hospital (CPC-H).

American Academy of Professional Coders
309 West 700 South
Salt Lake City, UT. 84101
1-800-626-2633

or

The National Healthcare Association also offers a national certification examination for a Certified Billing and Coding Specialist (CBCS).

National Healthcareer Association
7500 West 160th Street
Stilwell, Kansas 66085
800-499-9092

Outcomes 01- 12 are referred to as the Health Information Technology core and do not have to be completed if the students has previously completed the core in another program at any level. The Core should be taken first or concurrently with the first course in the program.

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)

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.

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.

Basic Skills

In a Career Certificate Program offered for 450 hours or more, in accordance with Rule 6A-10.040, F.A.C., the minimum basic skills grade levels required for postsecondary adult career and technical students to complete this program are: Mathematics 9, Language 11, and Reading 11. These grade level numbers correspond to a grade equivalent score obtained on a state designated basic skills examination.

Adult students with disabilities, as defined in Section 1004.02(7), Florida Statutes, may be exempted from meeting the Basic Skills requirements (Rule 6A-10.040). Students served in exceptional student education (except gifted) as defined in s. 1003.01(3) (a), F.S., may also be exempted from meeting the Basic Skills requirement. Each school district and Florida College must adopt a policy addressing procedures for exempting eligible students with disabilities from the Basic Skills requirement as permitted in Section 1004.91(3), F.S.

Students who possess a college degree at the Associate of Applied Science level or higher; who have completed or are exempt from the college entry-level examination; or who have passed a state, national, or industry licensure exam are exempt from meeting the Basic Skills requirement (Rule 6A-10.040, F.A.C.) Exemptions from state, national or industry licensure are limited to the certifications listed on the Basic Skills and Licensure Exemption List which may be accessed from the CTE Program Resources page.

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: **Nursing Assistant (Long-Term Care)**
Program Type: **Career Preparatory**
Career Cluster: **Health Science**

Career Certificate Program	
Program Number	H170602
CIP Number	0351390200
Grade Level	30, 31
Standard Length	120 hours
Teacher Certification	Refer to the **Program Structure** section.
CTSO	HOSA: Future Health Professionals
SOC Codes (all applicable)	31-1014 Nursing Assistants
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 the Health Science 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 Health Science career cluster.

This program is designed to prepare students for employment as nursing assistants, nursing aides, and orderlies, nurse aides in nursing homes or SOC Code 31-1014 Nursing Assistants
The content includes, but is not limited to, interpersonal skills, medical terminology, legal and ethical responsibilities, safe and efficient work, gerontology, nutrition, pet-facilitated therapy, health and safety including Cardio-pulmonary Resuscitation (CPR) – heart saver level, and employability 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 a planned sequence of instruction consisting of 1 occupational completion points.

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	PRN0090	Nurse Aide and Orderly	REG NURSE 7 G LPN 7 G* PRAC NURSE @7 %7%G *(Must be a Registered Nurse)	120 hours	31-1014

* The LPN 7 G district issued certification is a practical nurse. A practical nurse can only be utilized as an instructor of the CNA training program when they are supervised by the program coordinator which must be a registered nurse. Please refer to F.A.C. 64B9-15.005 for requirements.

Regulated Programs

Successful completion of this program from an approved school prepares the student for certification for employment as a Nursing Assistant in a nursing home, in accordance with Chapter 464.203, Florida Statutes. To be approved, this program must be supervised by a registered nurse and have follow the faculty qualifications set forth in 64B9-15.005 (3) (a) F.A.C.

New programs must be approved by the Board of Nursing, Department of Health prior to enrolling students.

Those students who satisfactorily complete an approved course are eligible to apply to take the national nursing assistant examination being utilized in Florida, in accordance with Chapter 464.203, F.S. This program includes both Acute and Long Term Care.

In accordance with 64B9-15.005 F.A.C., students will perform nursing skills in the clinical and simulated laboratory settings under the supervision of a qualified instructor. The recommended teacher/student ratio in the clinical area is 1 to 12, but the maximum is 1 to 15.

In accordance with 64B9-15.006 F.A.C., Clinical and simulated laboratory learning experiences must correlate with 80 hours of didactic instruction In addition, a minimum of 40 hours clinical experiences must be obtained. Simulated labs are not a substitute for clinical experience. The clinical instruction shall include at least 20 hours of long term care clinical instruction in a licensed nursing home or licensed long term care facility.

In addition, Students must have a minimum of 16 hours of training in communication and interpersonal skills, infection control, safety/emergency procedures, promoting residents' independence, and respecting residents' rights prior to any direct contact with a resident.

According to Section 400.211, F.S., persons who are enrolled in, or have completed, a state approved nursing assistant training program may be employed by a licensed nursing facility for a period of four months. However, the certification requirements must be met within four months of such initial employment.

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 mathematics and science knowledge and skills.
02.0 Demonstrate the ability to communicate and use interpersonal skills effectively.
03.0 Demonstrate legal and ethical responsibilities specific to nurse assisting.
04.0 Use information technology tools.
05.0 Recognize and practice safety and security procedures.
06.0 Demonstrate employability skills.
07.0 Provide emergency care.
08.0 Describe the anatomy and physiology of the human body.
09.0 Perform physical comfort and safety functions specific to nurse assisting.
10.0 Provide personal patient care.
11.0 Perform patient care procedures.
12.0 Apply principles of nutrition.
13.0 Provide care for geriatric patients.
14.0 Apply the principles of infection control specific to nursing assisting.
15.0 Provide biological, psychological, and social support.
16.0 Perform organizational skills following the patient plan of care.
17.0 Assist with restorative (rehabilitative) activities.
18.0 Demonstrate knowledge of blood borne diseases, including HIV/AIDS
19.0 Perform skills related to the hospital setting. (optional)

Florida Department of Education
Student Performance Standards

Program Title: Nursing Assistant (Long Term Care)
Career Certificate Program Number: H170602

Course Number: PRN0090 **Occupational Completion Point: A** **Nursing Aides, Orderlies and Attendants –120 hours – SOC Code 31-1014**	
01.0	Demonstrate mathematics and science knowledge and skills. -- The students will be able to:
01.01	Draw, read, and report on graphs, charts and tables.
01.02	Measure time, temperature, distance, capacity, and mass/weight.
01.03	Make, use and convert using both traditional and metric units.
01.04	Make estimations and approximations and judge the reasonableness of the result.
01.05	Convert from regular to 24 hour time.
01.06	Demonstrate ability to evaluate and draw conclusions.
01.07	Organize and communicate the results obtained by observation and experimentation.
01.08	Ask appropriate scientific questions and recognize what is involved in experimental approaches to the solution of such questions.
01.09	Calculate ratios.
02.0	Demonstrate the ability to communicate and use interpersonal skills effectively. -- The student will be able to:
02.01	Distinguish between factual reports and personal opinion.
02.02	Identify barriers to communication.
02.03	Use basic medical terminology and approved abbreviations.
02.04	Demonstrate effective interpersonal relationships.
02.05	Receive and give oral reports of a patient's status.
02.06	Report and record objective, pertinent observations, in written or oral form, observing legal guidelines.

	02.07 Maintain current documentation.
	02.08 Obtain specified data from patient and family.
	02.09 Utilize verbal and written information to assist with the patient's plan of care.
	02.10 Demonstrate use of the communication system.
	02.11 Adapt communication skills to varied levels of understanding and cultural orientation.
	02.12 Read and discuss technical material.
03.0	Demonstrate legal and ethical responsibilities specific to nurse assisting. – The student will be able to:
	03.01 Demonstrate legal and ethical behavior within the role and scope of nursing assistant responsibilities.
	03.02 Describe the purpose of the chain of communication (i.e., to resolve patient or employee problems).
	03.03 Follow policies and procedures affecting the health, safety, and well-being of patients.
	03.04 Recognize and report signs of substance abuse.
	03.05 Demonstrate the understanding of vulnerable population abuse and reporting procedures per agency.
	03.06 Follow legal guidelines in documentation.
	03.07 Demonstrate methods regarding risk management including prevention and quality of care.
	03.08 Exhibit behavior supporting and promoting patients’ and/or residents' rights.
	03.09 Recognize that a C.N.A. must self-report any crimes they’ve been involved in within 30 days of the offense in accordance with (FS 456.0727(1) w).
	03.10 Discuss Florida certified nursing assistant rules including role limitations.
	03.11 Recognize potential for and prevention of medical errors.
	03.12 Discuss proper procedures to follow regarding medical errors.
04.0	Use information technology tools. -- The students will be able to:
	04.01 Employ computer operations applications to access, create, manage, integrate, and store information.
05.0	Recognize and practice safety and security procedures. -- The students will be able to:
	05.01 Recognize safe and unsafe working conditions and report safety hazards.

	05.02 Demonstrate the safe use of medical equipment.
	05.03 Explain and apply the theory of root- cause analysis.
	05.04 Identify and describe methods in medical error reduction and prevention in the various healthcare settings.
	05.05 Identify and practice security procedures for medical supplies and equipment.
	05.06 Demonstrate personal safety procedures based on Occupations Safety and Health Administration (OSHA) and Centers for Disease Control (CDC) regulations (including standard precautions).
	05.07 Recognize Materials Data Safety Sheets (MSDS) and comply with safety signs, symbols, and labels.
	05.08 Demonstrate proper body mechanics and ergonomics.
	05.09 Demonstrate the procedure for properly identifying patients.
	05.10 Demonstrate procedures for the safe transport and transfer of patients.
	05.11 Describe fire, safety, disaster and evacuations procedures.
	05.12 Discuss The Joint Commission patient safety goals.
06.0	Demonstrate employability skills. -- The students will be able to:
	06.01 Conduct a job search and secure information about a job.
	06.02 Identify documents that may be required when applying for a job.
	06.03 Complete a job application.
	06.04 Demonstrate competence in job-interview techniques.
	06.05 Identify or demonstrate appropriate responses to criticism from employer, supervisor, or other persons.
	06.06 Demonstrate knowledge of how to make job changes appropriately.
	06.07 Demonstrate acceptable employee health habits.
07.0	Provide emergency care. -- The student will be able to:
	07.01 Obtain and maintain training or certification in cardiopulmonary resuscitation (CPR), automated external defibrillator (AED), foreign body airway obstruction (FBAO), and first aid for infant, child and adult.
	07.02 Identify emergency evacuation procedures.
08.0	Describe the anatomy and physiology of the human body. -- The student will be able to:

	08.01	Describe the basic structure and function of body systems.
	08.02	Describe the relationships of body systems in providing patient care.
	08.03	Recognize abnormal signs and symptoms of common diseases and condition.
09.0	Perform physical comfort and safety functions specific to nurse assisting. – The student will be able to:	
	09.01	Maintain patient units and equipment.
	09.02	Maintain service areas on the units including supplies and equipment.
	09.03	Observe, report, and record changes in the patient's behavior daily, including mental awareness.
	09.04	Adjust bed and side-rails.
	09.05	Lift, hold, and transfer patients including the use of the various assistive devices and equipment, utilizing proper body mechanics and patient safety measures.
	09.06	Turn and position patient.
	09.07	Demonstrate the proper use of a gait belt in both transfer and ambulation.
	09.08	Transfer patient to stretcher.
	09.09	Apply protective devices as directed (e.g., vest and belt).
	09.10	Apply comfort devices as directed (e.g., foot-board, over bed cradle, alternating pressure mattress).
	09.11	Assist patient to dangle.
	09.12	Assist patient in ambulation, including the use of crutch, cane, or walker.
	09.13	Assist patient in using wheelchair.
	09.14	Assist patient with care and use of prosthetic/orthotic devices.
	09.15	Describe emergency procedures utilized in the clinical area(s).
	09.16	Implement appropriate regulatory and accrediting agency patient safety guidelines.
10.0	Provide personal patient care. -- The student will be able to:	
	10.01	Give bed bath; observe and report changes in patient including skin and level of consciousness.
	10.02	Administer back rub.

10.03	Assist with shower or tub bath, including the use of specialty tubs.
10.04	Assist patient with sink, tub, shower, or bed shampoo.
10.05	Demonstrate the use of a safety and/or electric razor to shave the patient.
10.06	Groom patient, including hair, skin, foot, hand, and nail care.
10.07	Assist with and/or administer oral hygiene including denture care.
10.08	Assist patient with toileting using various types of restorative and rehabilitative equipment.
10.09	Assist patient to dress.
10.10	Assist patient with meals.
10.11	Assist with bowel and bladder training.
10.12	Assist and/ or provide perineal care.
10.13	Empty, measure and record urinary output and/or drainage.
10.14	Assist patient with both donning and doffing prosthesis and brace.
10.15	Demonstrate application and use of a leg bag, leg strap and dignity bag.
10.16	Monitor and assist with the drainage of urostomy bags and colostomy bags.
11.0	Perform patient care procedures. – The student will be able to:
11.01	Demonstrate ability to accurately measure, record and report vital signs.
11.02	Assist with the admission of a patient and/or resident.
11.03	Assist with transfer of patient.
11.04	Assist with discharge of patient.
11.05	Make unoccupied/occupied bed.
11.06	Measure and record patient's height and weight.
11.07	Assist patient in passive range-of-motion exercises.
11.08	Apply anti-embolic hose and sequential compression devices.

	11.09 Collect, strain, and/or test routine urine specimen.
	11.10 Collect timed urine specimen.
	11.11 Collect clean-catch (midstream-voided) urine specimen.
	11.12 Record fluid intake and output (I&O).
	11.13 Observe, record, and report patient's emesis.
	11.14 Monitor and provide with care of urinary catheters and drainage systems for both males and females.
	11.15 Assist with ostomy care including emptying or changing ostomy bags that do not adhere to the skin.
	11.16 Collect stool specimen.
	11.17 Perform postmortem care.
	11.18 Maintain patient-belongings list.
	11.19 Assist the nurse with care of the patient with complex medical needs.
	11.20 Assist with the collection of a sputum specimen.
12.0	Apply principles of nutrition. – The student will be able to:
	12.01 Identify nutrients and food groups.
	12.02 Explain regional, cultural, and religious food references.
	12.03 Describe special diets.
	12.04 Prepare a basic food plan.
	12.05 Check patient's diet tray for accuracy.
	12.06 Demonstrate knowledge of the need for thickened liquids and fluid consistency.
	12.07 Identify methods of maintaining fluid balance including forcing and restricting fluids.
	12.08 Monitor and document Nutritional Intake.
13.0	Provide care for geriatric patients. – The student will be able to:
	13.01 Identify methods and procedures to prevent pressure ulcers.

13.02	Identify methods to prevent falls in the elderly.
13.03	Identify safety principles as related to the elderly.
13.04	Describe general characteristics, particular needs, and problems of the elderly.
13.05	Identify attitudes and living habits that promote positive mental and physical health for the elderly.
13.06	Distinguish between fact and fallacy about the aging process.
13.07	Identify the need for community resources and services available to the elderly and their family.
13.08	Apply reality orientation techniques and validation therapy unless it is contraindicated by the patient diagnosis (Alzheimer's or Dementia).
13.09	Provide and involve patients in diversional activities.
13.10	Identify common alterations in elderly patient behavior.
13.11	Provide care for patients with special needs (e.g., impaired hearing, impaired vision, immobility, impaired body functions, cognitively impaired (dementia)).
13.12	Recognize and respond appropriately to symptoms of common diseases, including dementia, depression/suicide and Alzheimer's.
13.13	Demonstrate awareness of common behaviors in drug use and abuse in the elderly.
13.14	Report concerns to the nurse related to drug use and abuse in the elderly patient.
13.15	Identify components of the grief process.
13.16	Demonstrate an understanding of end of life care, hospice, and palliative care.
14.0	Apply the principles of infection control specific to nursing assisting. – The student will be able to:
14.01	Provide care for patients with infectious diseases applying the principles of "Standard Precautions" utilized with all patients as well as special procedures required.
14.02	Set up isolation unit using proper personal protective equipment (PPE) for all types of isolation including donning and removing PPE appropriately.
14.03	Follow isolation procedure with food tray, garments, and other materials.
14.04	Collect specimen from patient in isolation.
15.0	Provide biological, psychological, and social support. – The student will be able to:
15.01	Discuss family roles and their significance to health.
15.02	Respond to patient and family emotional needs.

16.0	Perform supervised organizational functions, following the patient plan of care. – The student will be able to:
	16.01 Organize patient-care assignments.
	16.02 Complete assignments accurately and in a timely manner.
17.0	Assist with restorative (rehabilitative) activities. – The student will be able to:
	17.01 List the purposes of restorative (rehabilitation) program.
	17.02 Assist patient with specified restorative (rehabilitation) needs.
	17.03 Assist patients/residents to reach the optimum level of independence.
18.0	Demonstrate knowledge of blood borne diseases, including HIV/AIDS. -- The student will be able to:
	18.01 Distinguish between fact and fallacy about the transmission and treatment of diseases caused by blood borne pathogens.
	18.02 Identify community resources and services available to individuals with diseases caused by blood borne pathogens.
	18.03 Identify "at risk" behaviors that promote the spread of aids and the public education needed to combat the spread of diseases caused by blood borne pathogens.
	18.04 Apply infection control techniques designed to prevent the spread of diseases caused by blood borne pathogens to the care of all patients following center for disease control (CDC) guidelines.
	18.05 Demonstrate knowledge of the legal aspects of aids, including testing.
19.0	Perform skills related to the hospital setting. (optional) – The student will be able to:
	19.01 Care for hospital equipment and supplies.
	19.02 Transfer patient to stretcher.
	19.03 Assist patient to apply binders.
	19.04 Care for patient in skin and skeletal traction.
	19.05 Assist with pre-operative and post-operative patient care.
	19.06 Reinforce dressings under the supervision of the RN/LPN.
	19.07 Obtain and record an apical pulse.
	19.08 Obtain and record an apical-radial pulse.
	19.09 Obtain and record pedal pulse.

19.10 Provide cast care and/or pin care.
19.11 Provide care for eye glasses, artificial eyes, and contact lens.

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

This program focuses on broad, transferable skills and stresses understanding and demonstration of the following elements of the health care industry; planning, management, finance, technical and production skills, underlying principles of technology, labor issues, community issues and health, safety, and environmental issues.

The length of this program is 120 hours. Completion of this program should enable the postsecondary student to be given advanced standing in the Patient Care Technician program but will require additional evaluation and competencies to enter at the level of OCP A.

This program meets the Department of Health's education requirements for HIV/AIDS, Domestic Violence and Prevention of Medical Errors. Although not a requirement for initial licensure, it is a requirement for renewal, therefore the instructor may provide a certificate for renewal purposes to the student verifying these requirements have been met.

If students in this program are seeking a licensure, certificate or registration through the Department of Health, please refer to 456.0635 F.S. for more information on disqualification for a license, certificate, or registration through the Department of Health.

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)

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.

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: **Home Health Aide**
Program Type: **Career Preparatory**
Career Cluster: **Health Science**

Career Certificate Program	
Program Number	H170604
CIP Number	0351260200
Grade Level	30, 31
Standard Length	165 hours
Teacher Certification	Refer to the **Program Structure** section.
CTSO	HOSA: Future Health Professionals
SOC Codes (all applicable)	31-1011 Home Health Aides 31-9099 Healthcare Support Workers, All Other
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 the Health Science 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 Health Science career cluster.

This program is designed to prepare students for employment as a home attendant, or home health aide (SOC Code 31-1011) or to provide supplemental training for persons previously or currently employed in these occupations.

The content includes, but is not limited to, instruction in those supportive services that are required to provide and maintain bodily and emotional comfort and to assist the patient toward independent living in a safe environment, as stated in Rules of the Department of Health - Minimum Standards for Home Health Agencies. Additional content areas to be included are: legal and ethical responsibilities; communication skills; basic human needs; a safe, clean, and healthy home environment; the developmental process; nutritional needs; emergency care; personal care; special care and rehabilitation needs of the client; household management; record-keeping; pet facilitated therapy; and employability 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 a planned sequence of instruction consisting of 2 occupational completion points.

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	HSC0003	Basic Healthcare Worker	REG NURSE 7 G PRAC NURSE @7 %7%G *(Must be a Registered Nurse)	90 hours	31-9099
B	HCP0330	Home Health Aide		75 hours	31-1011

Regulated Programs

Basic infection control, first aid, cardio- pulmonary resuscitation (CPR) heart saver level, vital signs, home-care skills and client care skills are integral parts of this program. Clinical experiences, where the student may practice, demonstrate and perform the procedures associated with bedside client care, are an appropriate part of this program.

Please refer to 42CFR§484.36 for the clinical requirements for the Home Health Aide program.

Section 59A-8.0095Home Health Aide, Administrative Rules, Department of Health and Rehabilitative Services contain much valuable information for program planning. These rules require that if the Home Health Aide receives training through a vocational school where professional standards have been established in accordance with the State Board of Education, a certificate of successful completion shall be on file with the employer.

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 of the healthcare delivery system and health occupations.
02.0 Demonstrate the ability to communicate and use interpersonal skills effectively.
03.0 Demonstrate legal and ethical responsibilities.
04.0 Demonstrate an understanding of and apply wellness and disease concepts.
05.0 Recognize and practice safety and security procedures.
06.0 Recognize and respond to emergency situations.
07.0 Recognize and practice infection control procedures.
08.0 Demonstrate an understanding of information technology applications in healthcare.
09.0 Demonstrate employability skills.
10.0 Demonstrate knowledge of blood borne diseases, including HIV/AIDS.
11.0 Apply basic math and science skills.
12.0 Use verbal and written communications specific to Home Health Aide.
13.0 Demonstrate legal and ethical responsibilities specific to Home Health Aide.
14.0 Perform physical comfort and safety functions specific to Home Health Aide.
15.0 Provide personal patient care.
16.0 Perform patient care procedures.
17.0 Apply principles of nutrition.
18.0 Provide care for geriatric patients.
19.0 Apply the principles of infection control specific to Home Health Aide.
20.0 Provide bio-psycho-social support.
21.0 Perform supervised organizational functions, following the patient plan of care.
22.0 Assist with rehabilitative activities.
23.0 Perform home health-care services.

Florida Department of Education
Student Performance Standards

Program Title: Home Health Aide
Career Certificate Program Number: H170404

The **Basic Health Care Worker (HSC0003)** is referred to as the **Health Science Core** and is the first OCP in the majority of the Career Certificate Program health science programs. Secondary and Postsecondary students completing the health science core will not have to repeat the core in any other health science program in which it is a part. When the recommended sequence is followed, the structure allows students to complete at specified points for employment or remain for advanced training or cross-training.

Career Certificate Program Course Number: HSC0003
Occupational Completion Point: A
Basic Healthcare Worker – 90 Hours – SOC Code 31-9099

To ensure consistency whenever these courses are offered, the health science core standards (1-11) have been placed in a separate document.

Course Number: HCP0330
Occupational Completion Point: B
Home Health Aide – 75 Hours – SOC Code 31-1011

12.0	Use verbal and written communications specific to home health aide. – The student will be able to:
12.01	Obtain specified data from patient and family.
12.02	Utilize verbal and written information to assist with the patient's plan of care.
13.0	Demonstrate legal and ethical responsibilities specific to home health aide. – The student will be able to:
13.01	Demonstrate legal and ethical behavior within the role and scope of home health aide responsibilities.
13.02	Follow policies and procedures concerning care as directed by the employer affecting the health, safety, and well-being of patients in the home setting.
13.03	Recognize and report signs of substance abuse.
13.04	Follow legal guidelines in charting.
13.05	Exhibit behavior supporting and promoting residents' rights.
13.06	Recognizes and follows limits if job restrictions.
14.0	Perform physical comfort and safety functions specific to home health aide. – The student will be able to:

14.01	Maintain a clean and safe home environment for the patient.
14.02	Adjust bed and side-rails.
14.03	Transfer patient with mechanical lifters using proper body mechanics and patient safety measures.
14.04	Turn and position patient.
14.05	Apply protective devices as directed (e.g. vest or belt).
14.06	Apply comfort devices as directed (e.g. foot-board, over-bed cradle, alternating pressure mattress).
14.07	Assist patient to dangle.
14.08	Assist patient in ambulation, including the use of crutch, cane, or walker.
14.09	Assist patient in using wheelchair.
14.10	Assist patient with care and use of prosthetic/orthotic devices.
14.11	Administer back rub.
14.12	Identify emergency evacuation procedures with adaptations to the home setting.
14.13	Implement appropriate joint commission patient safety goals.
15.0	Provide personal patient care. – The student will be able to:
15.01	Give bed bath; observe and report changes in patient.
15.02	Practice procedures for safety in the bathroom including the use of adaptive shower equipment such as shower chairs, long handled bath sponge, grab bars, extended shower hose, rubber mat in tub or shower, and rubber based rug outside the shower.
15.03	Assist with shower or tub bath, including use of specialty tubs.
15.04	Assist patient with sink, tub, shower, or bed shampoo.
15.05	Shave patient.
15.06	Groom patient, including hair, skin, foot, and nail care.
15.07	Assist with and/or administer oral hygiene.
15.08	Assist patient with toileting.
15.09	Assist patient to dress.

	15.10 Assist patient with meals.
16.0	Perform patient care procedures. – The student will be able to:
	16.01 Make unoccupied/occupied bed.
	16.02 Assist patient in passive range-of-motion exercises.
	16.03 Apply anti-embolic hose and sequential compression devices.
	16.04 Collect, strain, and/or test routine urine specimen.
	16.05 Monitor catheter drainage system.
	16.06 Monitor fluid intake and output (I&O), including forcing and restricting fluids.
	16.07 Observe, record, and report patient's emesis.
	16.08 Assist patient with moist and dry heat applications to include the sitz bath.
	16.09 Assist with ostomy care.
	16.10 Collect stool specimen.
	16.11 Care for patients receiving oxygen therapy.
17.0	Apply principles of nutrition. – The student will be able to:
	17.01 Identify nutrients and food groups.
	17.02 Explain regional, cultural, and religious food preferences.
	17.03 Describe special diets.
	17.04 List factors that must be considered when purchasing food.
	17.05 Prepare a basic food plan.
	17.06 List factors that must be considered when storing food.
	17.07 Identify methods of maintaining fluid balance.
	17.08 Identify methods of food preparation.
	17.09 Discuss preparation and serving of trays in the home.

18.0	Provide care for geriatric patients. – The student will be able to:
	18.01 Identify safety principles as related to the elderly.
	18.02 Describe general characteristics, particular needs, and problems of the elderly.
	18.03 Identify attitudes and living habits that promote positive mental and physical health for the elderly.
	18.04 Distinguish between fact and fallacy about the aging process.
	18.05 Identify community resources and services available to the elderly.
	18.06 Apply reality orientation techniques and validation therapy.
	18.07 Provide and involve patients in diversional activities.
	18.08 Identify common alterations in elderly patient behavior or health status and follow up within the home health aide scope of performance.
	18.09 Provide care for patients with special needs (e.g., impaired hearing, impaired vision, immobility, impaired body functions).
19.0	Apply the principles of infection control specific to home health aide. – The student will be able to:
	19.01 Provide care for patients with infectious diseases in the home.
	19.02 Follow isolation procedures with food tray, garments, and other materials in the home.
	19.03 Utilize standard precautions in all home care.
20.0	Provide bio-psycho-social support. – The student will be able to:
	20.01 Discuss family roles and their significance to health.
	20.02 Respond to patient and family emotional needs.
21.0	Perform supervised management functions, following the patient plan of care. – The student will be able to:
	21.01 Organize patient-care assignments.
	21.02 Complete assignments accurately and in a timely manner.
22.0	Assist with rehabilitative activities. – The student will be able to:
	22.01 List the purposes of restorative (rehabilitation) programs.
	22.02 Assist patient with specified restorative (rehabilitation) needs.

	22.03 Assist patients/residents to reach the optimum level of independence.
23.0	Perform home health-care services. – The student will be able to:
	23.01 Follow an established work plan with the patient and family.
	23.02 Perform patient-related cleaning tasks and laundry.
	23.03 Identify methods for medication storage.
	23.04 Assist patient with taking self-administered prescribed medication in the home, and identify possible side effects and emergency procedures for adverse reactions in accordance with F.A.C. 59A-8.0095.
	23.05 Demonstrate how to utilize equipment and supplies in the home.

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

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.

This program meets the Department of Health's education requirements for HIV/AIDS, Domestic Violence and Prevention of Medical Errors. Although not a requirement for initial licensure, it is a requirement for renewal, therefore the instructor may provide a certificate for renewal purposes to the student verifying these requirements have been met.

Outcomes 01-11 are referred to as the Health Science Core and do not have to be completed if the student has previously completed the Core in another health occupations program at any level. The Core should be taken first or concurrently with the first course in the program. Following the successful completion of the core, the student is eligible to take the National Health Care Foundation Skill Standards Assessment with instructor approval and the completion of a portfolio.

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)

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.

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: **Practical Nursing**
Program Type: **Career Preparatory**
Career Cluster: **Health Science**

Career Certificate Program	
Program Number	H170607
CIP Number	0351390101
Grade Level	30, 31
Standard Length	1350 hours
Teacher Certification	Refer to the **Program Structure** section.
CTSO	HOSA: Future Health Professionals
SOC Codes (all applicable)	29-2061 Licensed Practical and Licensed Vocational Nurses 31-1014 Nursing Assistants
Basic Skills Level	Mathematics: 11 Language: 11 Reading: 11

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 Health Science 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 Health Science career cluster.

This program is designed to prepare students for employment as licensed practical nurses (SOC 29-2061). The program must be approved by the Florida State Board of Nursing in order for graduates to may apply to take the examination to practice as a Licensed Practical Nurse.

The content includes, but is not limited to, theoretical instruction and clinical experience in medical, surgical, obstetric, pediatric, and geriatric nursing; theoretical instruction and clinical experience in acute, care, long term care and community settings; theoretical instruction and clinical application of vocational role and function; personal, family and community health concepts; nutrition; human growth and development over the life span; body structure and function; interpersonal relationship skills, mental health concepts; pharmacology and administration of medications; legal aspects of practice; and current issues in nursing.

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 2 occupational completion points.

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	PRN0098	Practical Nursing Foundations 1	REG NURSE 7 G LPN 7 G * PRAC NURSE @7 *(Must be a Registered Nurse)	300 hours	31-1014
B	PRN0099	Practical Nursing Foundation 2	REG NURSE 7 G PRAC NURSE @7 *(Must be a Registered Nurse)	300 hours	29-2061
	PRN0290	Medical Surgical Nursing 1		300 hours	29-2061
	PRN0291	Medical Surgical Nursing 2		300 hours	29-2061
	PRN0690	Comprehensive Nursing and Transitional Skills		150 hours	29-2061

**** The LPN 7 G district issued certification is a practical nurse. This certification can only be utilized in the PRN0098 course when the program is an approved nursing assistant program with the Florida Board of Nursing to teach concepts, skills and experiences solely at the Certified Nursing Assistant level and scope. A practical nurse can only be utilized as an instructor of the CNA training program when they are supervised by the program coordinator which must be a registered nurse. Please refer to F.A.C. 64B9-15.005 for requirements.***

Regulated Programs

Please refer to Florida Statute 464.019 (1) (b) for faculty credential requirements to teach this program.

Students are eligible to apply to take the national licensing examination after satisfactory completion of an approved program. Licensure Examination for Practical Nurses, CAT NCLEX-PN is a computer-administered examination that the nursing graduate must take and pass in order to practice as a Licensed Practical Nurse.

Program must comply with the State Board of Nursing rules, including faculty qualifications. For questions regarding this process, please contact: Board of Nursing, 4052 Bald Cypress Way, Tallahassee, FL 32399-3752.

An approved licensed practical nurse supervisory education course can only be taken following completion of this program, and after licensure. The Graduate must have 6 months clinical experience before supervising as well as meeting all other criteria listed in 64B9-16.002.

A Licensed Practical Nurse working in a nursing home shall qualify to supervise by meeting all of the requirements in 64B9-16.002 (FS). The Supervisory course applicant must have no less than six months clinical nursing experience as an LPN. The supervisory course must be approved by the board of nursing, and must be a minimum of 30 hours in length.

Clinical instruction of nursing students will meet the requirements of Florida Statute 464.019. Clinical experience must make up or least 50% of the total program. Simulated practice and clinical experiences are included as an integral part of this program. Clinical Simulation may be used for no more than 50% of the total clinical experience.

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 of the healthcare delivery system and health occupations.
02.0 Recognize and practice safety, security and emergency procedures.
03.0 Demonstrate knowledge of blood borne diseases, including HIV/AIDS.
04.0 Perform patient and personal care as it pertains to the practical nurse.
05.0 Provide patient-centered care for the geriatric population.
06.0 Assist with restorative (rehabilitative) activities.
07.0 Demonstrate organizational functions, following the patient plan of care.
08.0 Demonstrate computer literacy as related to nursing functions.
09.0 Use appropriate verbal and written communications in the performance of nursing functions.
10.0 Demonstrate legal and ethical responsibilities specific to the nursing profession.
11.0 Apply the principles of infection control, utilizing nursing principles.
12.0 Perform aseptic techniques.
13.0 Describe the structure and function of the human body.
14.0 Apply principles of nutrition as it relates to Practical Nursing Scope of Practice.
15.0 Describe human growth and development across the lifespan.
16.0 Demonstrate the performance of nursing procedures.
17.0 Demonstrate how to administer medication.
18.0 Demonstrate how to provide bio-psycho-social support.
19.0 Demonstrate healthy lifestyle responsibility specific to personal health maintenance.
20.0 Implement education and resources for family wellness.
21.0 Participate in Community Health Awareness Forums.
22.0 Demonstrate how to care for the surgical patient with a Cardiovascular, Respiratory, Lymphatic, Musculoskeletal, Endocrine or Integumentary disease/disorder.
23.0 Demonstrate how to care for pre-operative and post-operative patients, utilizing nursing principles.
24.0 Demonstrate how to care for the surgical patient with a Gastrointestinal, Neurological, Urinary, Reproductive or Oncologic disease/disorder.
25.0 Demonstrate how to care for maternal/newborn patients, utilizing nursing principles.
26.0 Demonstrate knowledge of SIDS/ SUIDS as it relates to the practical nursing role.
27.0 Demonstrate how to care for pediatric patients, utilizing nursing principles.
28.0 Develop transitional skills.
29.0 Demonstrate employability skills specific to practical nursing.

Please Note: The following outcomes can only be taken by Practical nurses who have graduated from their practical nursing program. The LPN/IV education must be sponsored by a provider of continuing education courses approved by the Board pursuant to Rule 64B9. To be qualified to teach this module, the instructor must be a currently Florida licensed Registered nurse with teaching experience and nursing experience which includes IV therapy. The provider will be responsible for issuing a certificate verifying the requisite number of hours and course content.

In accordance with Rule 64B9 12.005, the module cannot be less than 30 hours post-graduate level. These outcomes must be followed by supervised clinical practice as needed to demonstrate clinical competence. Verification of competence shall be the responsibility of each employing institution. Such verification shall be given through a signed statement of a Florida licensed registered nurse.

LPN/IV

01.0 Explain the legal aspects of IV administration by practical nurses to include the policies and procedures of the institution and appropriate documentation.
02.0 Demonstrate knowledge of the peripheral veins used for venipuncture.
03.0 Perform a venipuncture.
04.0 Discuss the effect of IV therapy on the body.
05.0 Recognize and respond to adverse reactions to IV therapy.
06.0 Recognize and use various types of IV equipment.
07.0 Administer drugs intravenously.
08.0 Care for patients receiving IV drug therapy, blood and blood components, and/or parenteral nutrition.
09.0 Describe and utilize the principles of infection control in IV therapy.
10.0 Manage special IV therapy procedures.
11.0 Recognize terminology pertinent to IV therapy.
12.0 Care for the patient receiving IV therapy via central lines.

Florida Department of Education
Student Performance Standards

Program Title: Practical Nursing
Career Certificate Program Number: H170607

Career Certificate Program Course Number: PRN0098 **Occupational Completion Point: A** **Practical Nursing Foundations 1 – 300 Hours – SOC Code 31-1014**	
01.0	Demonstrate knowledge of the healthcare delivery system and health occupations. – The student will be able to:
01.01	Identify the basic components of the healthcare delivery system including public, private, government and non-profit.
01.02	Identify common methods of payment for healthcare services.
01.03	Describe the various types of healthcare providers and the range of services available including resources to victims of domestic violence.
01.04	Describe the composition and functions of a healthcare team.
01.05	Identify the general roles and responsibilities of the individual members of the healthcare team.
01.06	Identify the roles and responsibilities of the consumer within the healthcare delivery system.
01.07	Identify characteristics of effective teams.
01.08	Recognize methods for building positive team relationships.
01.09	Analyze attributes and attitudes of an effective leader.
01.10	Recognize factors and situations that may lead to conflict.
01.11	Demonstrate effective techniques for managing team conflict.
01.12	Describe factors that influence the current delivery system of healthcare.
01.13	Explain the impact of emerging issues including technology, epidemiology, bioethics and socioeconomics on healthcare delivery systems.
02.0	Recognize and practice safety, security and emergency procedures. – The student will be able to:
02.01	Recognize safe and unsafe working conditions and report safety hazards.
02.02	Demonstrate the safe use of medical equipment.

	02.03	Explain and apply the theory of root- cause analysis.
	02.04	Identify and describe methods in medical error reduction and prevention in the various healthcare settings.
	02.05	Identify and practice security procedures for medical supplies and equipment.
	02.06	Demonstrate personal safety procedures based on Occupations Safety and Health Administration (OSHA) and Centers for Disease Control (CDC) regulations including standard precautions.
	02.07	Recognize Safety Data Sheets (SDS) and comply with safety signs, symbols and labels.
	02.08	Demonstrate proper body mechanics and ergonomics.
	02.09	Demonstrate the procedure for properly identifying patients.
	02.10	Demonstrate procedures for the safe transport and transfer of patients.
	02.11	Describe fire, safety, disaster, and evacuations procedures.
	02.12	Discuss The Joint commission patient safety goals and any other applicable accrediting/regulatory agency guidelines.
	02.13	Describe legal parameters relating to the administration of emergency care.
	02.14	Obtain and maintain training or certification on cardiopulmonary resuscitation (CPR), automated external defibrillator (AED), foreign body airway obstruction (FBAO), and first aid.
03.0	Demonstrate knowledge of blood borne diseases, including HIV/AIDS. – The student will be able to:	
	03.01	Recognize emerging diseases and disorders.
	03.02	Distinguish between fact and fallacy about the transmission and treatment of diseases caused by blood borne pathogens including Hepatitis B.
	03.03	Identify community resources and services available to the individuals with diseases caused by blood borne pathogens.
	03.04	Identify “at risk” behaviors which promote the spread of diseases caused by blood borne pathogens and the public education necessary to combat the spread of these diseases.
	03.05	Apply infection control techniques designed to prevent the spread of diseases caused by blood borne pathogens to the care of all patients following Centers for Disease Control (CDC) guidelines.
	03.06	Demonstrate knowledge of the legal aspects of HIV/AIDS, including testing.
04.0	Perform patient and personal care as it pertains to the practical nurse. -- The student will be able to:	
	04.01	Demonstrate ability to accurately measure, record and report vital signs.
	04.02	Lift, hold, and transfer patients including the use of the various assistive devices and equipment, utilizing proper body mechanics and patient safety measures.

04.03	Provide primary nursing care.
04.04	Perform patient hygiene care.
04.05	Assist patient with activities of Daily Living (ADL) including: 04.05.01 Dressing 04.05.02 Meals 04.05.03 Bowel and bladder training 04.05.04 Perineal care 04.05.05 Make unoccupied/occupied bed 04.05.06 Passive range of motion exercises
04.06	Assist patient with both donning and doffing prosthesis and brace.
04.07	Provide care for eye glasses, prosthetic eyes, and contact lens.
05.0	Provide patient-centered care for the geriatric population. -- The student will be able to:
05.01	Incorporate professional attitudes, values, and expectations about physical and mental aging in the provision of patient-centered care for older adults and their families.
05.02	Identify barriers for older adults in receiving, understanding, and giving of information.
05.03	Use valid and reliable assessment made by registered nurse to guide nursing practice for older adults.
05.04	Recognize living environments as it relates to functional, physical, cognitive, psychological, and social needs of older adults.
05.05	Assist older adults and their support network to achieve personal goals, based on the analysis of the living environment and availability of community resources made by registered nurse.
05.06	Identify actual or potential mistreatment (physical, mental or financial abuse, and/or self-neglect) in older adults and refer appropriately.
05.07	Implement strategies and use online guidelines to prevent and/or identify and manage geriatric syndromes.
05.08	Recognize and respect the variations of care, the increased complexity, and the increased use of healthcare resources inherent in caring for older adults.
05.09	Recognize the complex interaction of acute and chronic co-morbid physical and mental conditions and associated treatments common to older adults.
05.10	Discuss models of care that promote safe, quality physical and mental health care for older adults such as PACE, NICHE, Guided Care, Culture Change, and Transitional Care Models.
05.11	Facilitate ethical, non-coercive decision making by older adults and/or families/caregivers for maintaining everyday living, receiving treatment, initiating advance directives, and implementing end-of-life care.
05.12	Assist registered nurse to promote adherence to the evidence-based practice of providing restraint-free care (both physical and chemical restraints).
05.13	Demonstrate leadership and communication techniques that foster discussion and reflection on the extent to which diversity (among nurses, nurse assistive personnel, therapists, physicians, and patients) has the potential to impact the care of older adults.

	05.14 Facilitate safe and effective transitions across levels of care, including acute, community-based, and long-term care (e.g., home, assisted living, hospice, nursing homes) for older adults and their families.
	05.15 Provide patient-centered care with consideration for mental and physical health and well-being of informal and formal caregivers of older adults.
	05.16 Advocate for timely and appropriate palliative and hospice care for older adults with physical and cognitive impairments.
	05.17 Implement and monitor strategies to prevent risk and promote quality and safety (e.g., falls, medication mismanagement, pressure ulcers) in the nursing care of older adults with physical and cognitive needs.
	05.18 Utilize resources/programs to promote functional, physical, and mental wellness in older adults.
	05.19 Identify relevant theories and concepts related to the delivery of patient-centered care for older adults.
	05.20 Apply reality orientation techniques and validation therapy unless it is contraindicated by the patient diagnosis (Alzheimer's or dementia).
	05.21 Recognize and respond appropriately to symptoms of common diseases, including dementia, depression/suicide and Alzheimer's.
	05.22 Provide care for patients with special needs (e.g., impaired hearing, impaired vision, immobility, impaired body functions, cognitively impaired (dementia)).
	05.23 Demonstrate awareness of common behaviors in drug use and abuse in the elderly.
	05.24 Report concerns to the nurse related to drug use and abuse in the elderly patient.
	05.25 Identify components of the grief process as it relates the geriatric patient.
06.0	Assist with restorative (rehabilitative) activities. – The student will be able to:
	06.01 List the purposes of restorative (rehabilitation) program.
	06.02 Assist patient with specified restorative (rehabilitation) needs.
	06.03 Assist patients/residents to reach the optimum level of independence.
07.0	Demonstrate organizational functions, following the patient plan of care. – The student will be able to:
	07.01 Organize patient-care assignments.
	07.02 Complete assignments accurately and in a timely manner.
08.0	Demonstrate computer literacy as related to nursing functions. – The student will be able to:
	08.01 Demonstrate effective use of technology, including use of electronic medical records and email relevant to job requirements for a Licensed Practical Nurse.
	08.02 Identify computer skills utilized for each clinical rotation and apply, as appropriate.

	08.03 Identify methods of communication to access and distribute data such as fax, e-mail, and internet.
09.0	Use appropriate verbal and written communications in the performance of nursing functions. – The student will be able to:
	09.01 Identify characteristics of successful and unsuccessful communication including communication styles and barriers.
	09.02 Respond to verbal and non-verbal cues.
	09.03 Use appropriate medical terminology and abbreviations.
	09.04 Recognize the importance of courtesy and respect for patients and other healthcare workers and maintain good interpersonal relationships.
	09.05 Receive and give oral report of patient's status.
	09.06 Report and record objective and subjective pertinent observations.
	09.07 Maintain current documentation.
	09.08 Document changes in patient behavior and mental awareness.
	09.09 Obtain specified data from patient and family.
	09.10 Define and explain the steps in the nursing process and the role of the licensed practical nurse in that process.
	09.11 Utilize nursing principles to assist with the patient's plan of care.
10.0	Demonstrate legal and ethical responsibilities specific to the nursing profession. – The student will be able to:
	10.01 Explain the “Patient’s Bill of Rights”.
	10.02 Identify standards of the Health Insurance Portability and Accountability Act (HIPAA).
	10.03 Describe advance directives.
	10.04 Describe informed consent.
	10.05 Recognize and report abuse including domestic violence and neglect.
	10.06 Identify the components of the Nurse Practice Act.
	10.07 Practice within the role and scope of the job description.
	10.08 Discuss medical errors related to the practical nurse.
	10.09 Define legal aspects and code of ethics related to nursing.

	10.10 Describe the practical nurses role in delegation of duties.
	10.11 Follow policies and procedures affecting the health, safety, and well-being of patients.
	10.12 Follow legal guidelines in charting, including use of electronic medical records
11.0	Apply the principles of infection control, utilizing nursing principles. – The student will be able to:
	11.01 Provide care for patients with infectious diseases applying the principles of “standard precautions” utilized with all patients as well as special procedures required.
	11.02 Set up isolation unit using proper personal protective equipment (PPE) for all types of isolation including donning and removing PPE appropriately.
	11.03 Follow isolation procedure with food tray, garments, and other materials.
	11.04 Collect specimen from patient in isolation.
	11.05 Identify common nosocomial infections and their prevention and treatment.
	11.06 Identify emergent communicable diseases and their prevention and treatment.
	11.07 Apply interventions to break each chain of infection.
	11.08 Discuss immunity and the role of immunizations.
	11.09 Discuss nursing responsibilities related to biological exposures.
12.0	Perform aseptic techniques. – The student will be able to:
	12.01 Apply principles of medical and surgical asepsis.
	12.02 Apply and remove sterile gloves and gown.
	12.03 Apply sterile dressing.
	12.04 Open sterile equipment and supplies.
	12.05 Maintain sterile field.
	12.06 Clean and disinfect equipment.
13.0	Describe the structure and function of the human body. – The student will be able to:
	13.01 Describe the relationships of body systems in providing patient care.
	13.02 Describe the structure and function of the respiratory system.

	13.03 Describe the structure and function of the cardio-vascular system including lymph and immune response.
	13.04 Describe the structure and function of the muscular-skeletal system.
	13.05 Describe the structure and function of the nervous, skin, and sensory systems.
	13.06 Describe the structure and function of the reproductive system.
	13.07 Describe the structure and function of the urinary system.
	13.08 Describe the structure and function of the digestive system.
	13.09 Describe the structure and function of the endocrine system.
14.0	Apply principles of nutrition as it relates to practical nursing scope of practice. – The student will be able to:
	14.01 Explore and utilize the U.S. Department of Agriculture's MyPlate food guide.
	14.02 Explain regional, cultural, and religious food references.
	14.03 Prepare a basic food plan.
	14.04 Demonstrate knowledge of the need for thickened liquids and fluid consistency.
	14.05 Identify methods of maintaining fluid balance including forcing and restricting fluids.
	14.06 Monitor and document nutritional intake.
	14.07 Assist patient with and maintain therapeutic diets.
	14.08 Describe the nutrients, their sources and significance in promoting health.
	14.09 List factors which must be considered when purchasing food.
	14.10 List factors which must be considered when storing food safely.
	14.11 Identify methods of safe food preparation.

Career Certificate Program Course Number: PRN0099 **Occupational Completion Point: B** **Practical Nursing Foundations 2 – 300 Hours – SOC Code 29-2061**	
15.0	Describe human growth and development across the lifespan. – The student will be able to:
	15.01 Describe characteristics of growth and development from conception to birth.

15.02	Describe characteristics of growth and development from birth through preschool.
15.03	Describe characteristics of growth and development from school age through adolescence.
15.04	Describe characteristics of growth and development of the adult through the life span.
15.05	Identify components of the grief process across the lifespan.
16.0	Demonstrate the performance of nursing procedures (which can be accomplished through a combination of simulation, laboratory and clinical settings in accordance with F.S.464.019). – The student will be able to:
16.01	Perform data collection.
16.02	Apply hot and cold applications.
16.03	Assist patient with sitz bath.
16.04	Describe and demonstrate how to monitor patient's pre and post special procedures (e.g. I.V.P., myelogram, MRI, CAT scan).
16.05	Apply bandage.
16.06	Perform clean and sterile dressing changing procedures.
16.07	Insert urinary catheter.
16.08	Obtain specimen from patient with indwelling catheter.
16.09	Remove retention catheter.
16.10	Demonstrate how to assist with physical examination.
16.11	Assist patient with diagnostic procedures.
16.12	Irrigate wound.
16.13	Apply pelvic belt for traction.
16.14	Apply cervical collar.
16.15	Apply orthopedic devices including binders, braces and splints.
16.16	Apply anti-embolic hose and sequential compression devices.
16.17	Care for patient in skin, skeletal traction and external fixators.
16.18	Clean tong/pin site.

16.19 Describe and demonstrate how to monitor chest drainage system.
16.20 Perform naso-oral suction.
16.21 Perform tracheostomy care.
16.22 Demonstrate how to instruct patient in breathing exercises.
16.23 Set up vaporizer/humidifier.
16.24 Administer and maintain oxygen.
16.25 Collect timed urine specimen.
16.26 Collect clean-catch (midstream-voided) urine specimen.
16.27 Test urine using point of care testing procedures.
16.28 Irrigate urinary catheter.
16.29 Demonstrate how to maintain continuous urinary bladder irrigation.
16.30 Change ostomy appliance.
16.31 Connect nasogastric tube to suction machine.
16.32 Remove nasogastric tube.
16.33 Administer enteral feeding.
16.34 Give enema.
16.35 Test stool for occult blood.
16.36 Irrigate nasogastric tube.
16.37 Irrigate oral cavity.
16.38 Irrigate colostomy.
16.39 Demonstrate how to maintain enteral feeding tubes.
16.40 Perform neurological checks.
16.41 Logroll patient.

	16.42 Irrigate ear.
	16.43 Irrigate eye.
	16.44 Irrigate vaginal canal.
	16.45 Obtain and test a drop of blood for glucose monitoring.
	16.46 Perform calculation and adjust IV flow rate.
	16.47 Observe intravenous infusion and report signs of adverse reactions.
	16.48 Inspect insertion site, change dressing, and remove IV needle or catheter from peripheral veins.
	16.49 Hang bags or bottles of hydrating fluid.
17.0	Demonstrate how to administer medication (which can be accomplished through a combination of simulation, laboratory, and clinical settings in accordance with F.S.464.019). – The student will be able to:
	17.01 Identify controlled substances and associated legal and safety issues.
	17.02 Demonstrate accurate dosage calculation.
	17.03 Demonstrate the six rights of administering medication.
	17.04 Demonstrate how to observe and respond to patient's need for medication.
	17.05 Demonstrate how to administer topical medication.
	17.06 Administer inhalants.
	17.07 Administer oral medication.
	17.08 Administer sublingual medication.
	17.09 Administer rectal medication.
	17.10 Administer vaginal medication.
	17.11 Administer eye medications.
	17.12 Administer ear drops.
	17.13 Administer nose drops.
	17.14 Administer intramuscular injection (including Z-tract).

17.15	Administer intradermal injection.
17.16	Administer subcutaneous injection.
17.17	Properly obtain, monitor and document use of controlled substances.
17.18	Instill bladder medication.
17.19	Care for equipment and supplies used to administer medications.
17.20	Assist the patient with self-administration of medications; reinforce teaching by the RN on the patient's medication, their expected effects and potential side effects.
17.21	Observe and communicate effects of medications to the patient’s assigned nurse.
17.22	Document administration of medication and patient's response on medical record.
17.23	Store medications properly according to facility policy and procedures.
17.24	Demonstrate use of medication resources.
18.0	Demonstrate how to provide bio-psycho-social support (which can be accomplished through a combination of simulation, laboratory, and clinical settings in accordance with F.S.464.019). -- The student will be able to:
18.01	Discuss family roles and their significance to health.
18.02	Respond to emotional needs of patient and family.
18.03	Demonstrate therapeutic communication.
18.04	Discuss coping mechanisms as seen in the performance of healthcare.
18.05	Differentiate between mental health and mental illness.
18.06	Recognize signs and symptoms of the various mental health disorders.
18.07	Discuss treatment modalities for the various mental health disorders.
18.08	Recognize the signs and symptoms for potential suicide and homicidal ideations in the patient and initiate appropriate interventions.
18.09	Describe treatments and resources for the addicted client.
18.10	Describe drug seeking behaviors and resources for potential risk of addiction.
18.11	Identify an individual in crisis and describe appropriate interventions.
18.12	Describe the common personality traits in mental health disorders including addictive behaviors.

	18.13 Correlate common psychological and developmental theories with both bio-, psycho-social components of health.
19.0	Demonstrate healthy lifestyle responsibility specific to personal health maintenance. – The student will be able to:
	19.01 Identify psychological reactions to illness including defense mechanisms.
	19.02 Identify complementary and alternative health practices.
	19.03 Discuss the adverse effects of the use of alcohol, tobacco, and both legal and illegal drugs on the human body and apply safety practices related to these and other high risk behaviors.
	19.04 Explain the basic concepts of positive self-image, wellness, and stress.
	19.05 Develop a wellness and stress control plan that can be used in personal and professional life.
	19.06 Discuss annual medical screenings.
	19.07 Define dental health and self-care practices.
	19.08 Provide education in warning signs and risk factors for mental health issues.
	19.09 Apply cultural diversity related to spirituality.
	19.10 Identify education level.
	19.11 Discuss occupation ability.
	19.12 Provide resources financial safety and security.
20.0	Implement education and resources for family wellness. – The student will be able to:
	20.01 Discuss risk factors in communicable diseases.
	20.02 Provide provider community resources for prenatal care.
	20.03 Apply knowledge into healthy parenting styles.
	20.04 Provide current immunization practices.
	20.05 Discuss healthy nutrition options and resources.
	20.06 Define abuse and neglect in relationships.
	20.07 Apply insight into safe housing environments/communities.
	20.08 Discuss school and family collaboration in education.

21.0	Participate in Community Health Awareness Forums. – The student will be able to:
	21.01 Perform basic medical screenings such as vital signs, weight, glucose, cholesterol, and body mass index.
	21.02 Discuss risk factors, screenings and resources for cancer.
	21.03 Identify and provide resources for mental health conditions including suicide and substance abuse.
	21.04 Discuss social and financial risk factors related to the aging adult.
	21.05 Define safe housing strategies for senior living.
	21.06 Discuss collaborative community strategies from healthcare providers, law enforcement agencies, religious affiliates, education systems, and legislative offices.

Career Certificate Program Course Number: PRN0290 **Occupational Completion Point: B** **Medical/Surgical Nursing 1 – 300 Hours – SOC Code 29-2061**	
22.0	Demonstrate how to care for the surgical patient with a cardiovascular, respiratory, lymphatic, musculoskeletal, endocrine, or integumentary disease/disorder (which can be accomplished through a combination of simulation, laboratory, and clinical settings in accordance with F.S.464.019). – The student will be able to:
	22.01 Identify signs and symptoms of disease/disorders of the body systems.
	22.02 Identify diagnostic tests used in the treatment of diseases/disorders of the body systems.
	22.03 Identify medications used in the treatment of diseases/disorders of the body systems.
	22.04 Identify nutritional needs of patients with diseases/disorders of the body systems.
	22.05 Identify the symptoms of acute/chronic psychological distress.
	22.06 Care for the patient with a: 22.06.01 Cardiovascular/Circulatory disease/disorder 22.06.02 Respiratory disease/disorder 22.06.03 Lymphatic/Immune disease/disorder 22.06.04 Musculoskeletal disease/disorder 22.06.05 Endocrine disease/disorder 22.06.06 Integumentary/Sensory disease/disorder
23.0	Demonstrate how to care for pre-operative and post-operative patients, utilizing nursing principles (which can be accomplished through a combination of simulation, laboratory, and clinical settings in accordance with F.S.464.019). – The student will be able to:
	23.01 Assist the RN with pre-operative and post-operative teaching.
	23.02 Perform a surgical prep.

23.03	Prepare patient for operating room.
23.04	Provide post-operative care.
23.05	Reinforce post-operative discharge teaching provided by the RN.

Career Certificate Program Course Number: PRN0291 **Occupational Completion Point: B** **Medical/Surgical Nursing 2 – 300 Hours – SOC Code 29-2061**	
24.0	Demonstrate how to care for the surgical patient with a gastrointestinal, neurological, urinary, reproductive, or oncologic disease/disorder. (which can be accomplished through a combination of simulation, laboratory, and clinical settings in accordance with F.S.464.019). – The student will be able to:
24.01	Identify signs and symptoms of disease/disorders of the body systems.
24.02	Identify diagnostic tests used in the treatment of diseases/disorders of the body systems.
24.03	Identify medications used in the treatment of diseases/disorders of the body systems.
24.04	Identify nutritional needs of patients with diseases/disorders of the body systems.
24.05	Identify the symptoms of acute/chronic psychological distress.
24.06	Care for the patient with a: 24.06.01 Gastrointestinal disease/disorder 24.06.02 Neurological disease/disorder 24.06.03 Urinary disease/disorder 24.06.04 Reproductive disease/disorder 24.06.05 Oncologic disease/disorder

Career Certificate Program Course Number: PRN0690 **Occupational Completion Point: B** **Comprehensive Nursing – 150 Hours – SOC Code 29-2061**	
25.0	Demonstrate how to care for maternal/newborn patients, utilizing nursing principles (which can be accomplished through a combination of simulation, laboratory, and clinical settings in accordance with F.S.464.019). – The student will be able to:
25.01	Describe prenatal care and normal development of the fetus.
25.02	Identity complications and interventions during pregnancy.
25.03	Describe how to assist the RN with admitting the patient to labor and delivery.
25.04	Describe the stages of the labor process and nursing responsibilities.

	25.05 Describe the importance of monitoring contractions.
	25.06 Recognize the importance of monitoring fetal heart rate.
	25.07 Recognize signs/symptoms of fetal distress.
	25.08 Describe signs of complications during labor and delivery and nursing interventions.
	25.09 Demonstrate how to assist the RN with preparing the patient for caesarean.
	25.10 Describe and demonstrate care during delivery process.
	25.11 Describe Apgar score.
	25.12 Demonstrate how to suction infant's respiratory passage with bulb syringe.
	25.13 Demonstrate how to identify infant using mother's bracelet.
	25.14 Demonstrate how to weigh and measure infant.
	25.15 Demonstrate how to bathe infant.
	25.16 Demonstrate how to carry infant.
	25.17 Demonstrate how to feed infant.
	25.18 Demonstrate how to collect urine specimen from infant.
	25.19 Describe post- partum care.
	25.20 Demonstrate perineal care.
	25.21 Describe breast care for both breast feeding and bottle feeding mothers.
	25.22 Assist mother with infant care.
	25.23 Describe the care required for an infant with a circumcision.
	25.24 Demonstrate perineal care and diapering technique.
	25.25 Describe the discharge process of the postpartum and infant patient.
26.0	Demonstrate knowledge of SIDS/ SUIDS as it relates to the practical nursing role. – The student will be able to:
	26.01 Define SIDS and Sudden Unexpected Infant Death (SUID).

	26.02 Identify the critical SIDS/SUID risk-reduction methods for parents and caregivers.
	26.03 Demonstrate an understanding of the benefits of back sleeping for newborns and infants.
	26.04 Describe the LPN's key role as educators to parents and caregivers about SIDS/SUID.
27.0	Demonstrate how to care for pediatric patients, utilizing nursing principles (which can be accomplished through a combination of simulation, laboratory, and clinical settings in accordance with F.S.464.019). – The student will be able to:
	27.01 Describe how to adapt nursing care for the pediatric patient.
	27.02 Describe how to apply safety principles for the pediatric patient.
	27.03 Describe general characteristics, particular needs, and problems of pediatric patients.
	27.04 Demonstrate how to prepare patient and family for the hospital experience.
	27.05 Identify signs and symptoms of common disorders/diseases.
	27.06 Demonstrate how to implement prescribed nutritional requirement.
	27.07 Demonstrate how to provide diversion and recreational activities.
28.0	Develop transitional skills. -- The student will be able to:
	28.01 Organize complex patient care assignments with multiple clients.
	28.02 Discuss F.S. 464 and the corresponding Rules.
	28.03 Discuss the scope of practice of a Licensed Practical Nurse in a leadership/supervisory role.
	28.04 Describe the role of the LPN in delegation to unlicensed personnel.
	28.05 Describe the Florida Board of Nursing requirements for licensure renewal.
	28.06 Demonstrate an understanding of licensure by examination and by endorsement.
	28.07 Complete application for licensure by examination.
	28.08 Discuss current legislation pertinent to the Florida Board of Nursing and its effect on your nursing practice.
	28.09 Determine how to apply for membership in a professional organization.
	28.10 Discuss benefits and responsibilities of the LPN in membership in a professional organization.
29.0	Demonstrate employability skills specific to practical nursing. -- The student will be able to:

29.01	Identify personal traits or attitudes desirable in a member of the healthcare team.
29.02	Exemplify basic professional standards of healthcare workers as they apply to hygiene, dress, language, confidentiality and behavior (i.e. telephone etiquette, courtesy and self-introductions).
29.03	Recognize the potential for stress in the practice of nursing and develop methods of managing stress.
29.04	Recognize the potential for violence in the workplace and describe methods of reducing that potential.
29.05	Identify employment opportunities for licensed practical nurses.
29.06	Participate in interview skill development activities.
29.07	Complete letters of job application and resignation.
29.08	Complete a professional portfolio, including a resume.

IV Therapy: The following intended outcomes 01-12 can ONLY be taken by graduate Practical Nurses who have completed their practical nursing program.	
01.0	Explain the legal aspects of IV administration by practical nurses. – The student will be able to:
01.01	Explain the Nurse Practice Act and the Florida Administrative Code as it relates to IV therapy by LPNs.
01.02	Describe the policies and procedures of employing agencies as they relate to IV therapy by LPNs.
01.03	Chart IV therapy including all principles of charting necessary for legal documentation.
01.04	List the aspects of intravenous therapy that can only be given under the direct supervision of the registered professional nurse.
02.0	Demonstrate knowledge of the peripheral veins used for venipuncture. – The student will be able to:
02.01	Locate and identify the peripheral veins used for venipuncture.
02.02	List preference of peripheral vein location used for venipuncture.
03.0	Perform a venipuncture. – The student will be able to:
03.01	Prepare and support the patient psychologically.
03.02	Prepare and support the patient's family and/or visitors psychologically.
03.03	Prepare and support the patient physically.

	03.04 Choose equipment appropriately.
	03.05 Choose and properly prepare appropriate site(s).
	03.06 Palpate the vein(s) adequately.
	03.07 Insert equipment into the vein maintaining the safety of both the patient and the nurse.
04.0	Discuss the effect of IV therapy on the body. – The student will be able to:
	04.01 Describe the relationship between intravenous therapy and the body's homeostatic and regulatory functions.
	04.02 Discuss clinical manifestations of fluid and electrolyte imbalance.
05.0	Recognize and respond to adverse reactions to IV therapy. – The student will be able to:
	05.01 Recognize the signs and symptoms of local complications to IV therapy.
	05.02 Recognize the signs and symptoms of systemic complications to IV therapy.
	05.03 Discuss preventive measures for both local and systemic complications.
	05.04 Describe appropriate treatment measures for both local and systemic complications.
06.0	Recognize and use various types of IV equipment. – The student will be able to:
	06.01 Identify various types of equipment used in administering IV therapy.
	06.02 Discuss the criteria for the use of each type of equipment.
	06.03 Describe how to troubleshoot for malfunction of various types of equipment.
07.0	Administer drugs intravenously. – The student will be able to:
	07.01 List formulas and calculate fluid and drug administration rate.
	07.02 List methods of administering drugs intravenously, including the advantages and disadvantages of each.
	07.03 Utilize the principles of compatibility and incompatibility of drugs and solutions in preparing for administration.
	07.04 Administer IV drugs incorporating the "six rights" of medication administration.
08.0	Care for patients receiving IV drug therapy, blood and blood components, and/or parenteral nutrition. – The student will be able to:
	08.01 Utilize the principles of chemotherapy, including protocols, actions, and side effects when caring for patients receiving drug therapy.

	08.02 Manage the care of the patient receiving parenteral nutrition, including the principles of metabolism, potential complications, physical and psychological measures to ensure the desired therapeutic effect.
	08.03 Manage the care of the patient receiving blood and blood components, following institutional protocols, including indications and contraindications for use and identification of adverse reactions.
09.0	Describe and utilize the principles of infection control in IV therapy. – The student will be able to:
	09.01 Use aseptic technique as related to IV therapy.
	09.02 Describe ways to prevent iatrogenic infection.
	09.03 Describe treatment for iatrogenic infections.
10.0	Care for the patient receiving special IV therapy procedures. – The student will be able to:
	10.01 Describe and utilize the nursing management necessary for heparin locks.
	10.02 Describe and utilize the nursing management necessary for central lines.
	10.03 Describe and utilize the nursing management necessary for arterial lines.
11.0	Recognize terminology pertinent to IV therapy. – The student will be able to:
	11.01 Define terms common to IV therapy.
	11.02 Interpret written IV terms and abbreviations correctly.
	11.03 Use correct IV terminology in all written and oral communications.
12.0	Care for the patient receiving IV therapy via central lines. – The student will be able to:
	12.01 Describe the location of central lines and the purpose of this IV therapy.
	12.02 Administer fluids and medications via central lines.
	12.03 Demonstrate blood drawing via central lines.
	12.04 List central line complications and interventions appropriate to correct them.
	12.05 Describe and perform central line dressings, cap changes, and flushing, noting the adverse effects and remediation.

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

This program meets the Department of Health's education requirements for HIV/AIDS, Domestic Violence and Prevention of Medical Errors. Although not a requirement for initial licensure, it is a requirement for renewal, therefore the instructor may provide a certificate for renewal purposes to the student verifying these requirements have been met.

If students in this program are seeking a licensure, certificate or registration through the Department of Health, please refer to 456.0635 F.S. for more information on disqualification for a license, certificate, or registration through the Department of Health.

This program focuses on broad, transferable skills and stresses understanding and demonstration of the following elements of the health care industry; planning, management, finance, technical and production skills, underlying principles of technology, labor issues, community issues and health, safety, and environmental issues.

This program H170605 has a statewide articulation agreement approved by the Florida State Board of Education:

Nursing R.N. AS (1351380100) – 10 credit hours

The following industry certifications have been approved by the Florida State Board of Education for statewide articulation credit into the Nursing R.N. (1351380100) AS degree.

Licensed Practical Nurse (FDMQA017) – 10 credits

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)

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.

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.

Basic Skills

In a Career Certificate Program offered for 450 hours or more, in accordance with Rule 6A-10.040, F.A.C., the minimum basic skills grade levels required for postsecondary adult career and technical students to complete this program are: Mathematics 11, Language 11, and Reading 11. These grade level numbers correspond to a grade equivalent score obtained on a state designated basic skills examination.

Adult students with disabilities, as defined in Section 1004.02(7), Florida Statutes, may be exempted from meeting the Basic Skills requirements (Rule 6A-10.040). Students served in exceptional student education (except gifted) as defined in s. 1003.01(3) (a), F.S., may also be exempted from meeting the Basic Skills requirement. Each school district and Florida College must adopt a policy addressing procedures for exempting eligible students with disabilities from the Basic Skills requirement as permitted in Section 1004.91(3), F.S.

Students who possess a college degree at the Associate of Applied Science level or higher; who have completed or are exempt from the college entry-level examination; or who have passed a state, national, or industry licensure exam are exempt from meeting the Basic Skills requirement (Rule 6A-10.040, F.A.C.) Exemptions from state, national or industry licensure are limited to the certifications listed on the Basic Skills and Licensure Exemption List which may be accessed from the CTE Program Resources page.

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: **Nursing Assistant (Articulated)**
Program Type: **Career Preparatory**
Career Cluster: **Health Science**

Career Certificate Program	
Program Number	H170690
CIP Number	0351390203
Grade Level	30, 31
Standard Length	165 hours
Teacher Certification	Refer to the **Program Structure** section.
CTSO	HOSA: Future Health Professionals
SOC Codes (all applicable)	31-1014 Nursing Assistants 31-9099 Healthcare Support Workers, All Other
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 the Health Science 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 Health Science career cluster.

This program is designed to prepare students for employment as nursing assistants (SOC 31-1014 Nursing Assistants).

The content includes but is not limited to interpersonal skills, medical terminology, legal and ethical responsibilities, safe and efficient work, gerontology, nutrition, pet-facilitated therapy, health and safety including Cardio-pulmonary Resuscitation (CPR) – heart saver level, and employability 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 a planned sequence of instruction consisting of 2 occupational completion points.

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	HSC0003	Basic Healthcare Worker	REG NURSE 7 G LPN 7 G* PRAC NURSE @7 %7%G *(Must be a Registered Nurse)	90 hours	31-9099
B	HCP0121	Nurse Aide and Orderly (Articulated)		75 hours	31-1014

**** The LPN 7 G district issued certification is a practical nurse. A practical nurse can only be utilized as an instructor of the CNA training program when they are supervised by the program coordinator which must be a registered nurse. Please refer to F.A.C. 64B9-15.005 for requirements.***

Regulated Programs

Successful completion of this program from an approved school prepares the student for certification for employment as a Nursing Assistant in a nursing home, in accordance with Chapter 464.203, Florida Statutes. To be approved, this program must be supervised by a registered nurse and follow the faculty qualifications set forth in 64B9-15.005 (3) (a) F.A.C.

New programs must be approved by the Board of Nursing, Department of Health prior to enrolling students.

Those students who satisfactorily complete an approved course are eligible to apply to take the national nursing assistant examination being utilized in Florida, in accordance with Chapter 464.203, F.S. This program includes both Acute and Long Term Care.

In accordance with 64B9-15.005 F.A.C., students will perform nursing skills in the clinical and simulated laboratory settings under the supervision of a qualified instructor. The recommended teacher/student ratio in the clinical area is 1 to 12, but the maximum is 1 to 15.

In accordance with 64B9-15.006 F.A.C., Clinical and simulated laboratory learning experiences must correlate with 80 hours of didactic instruction In addition, a minimum of 40 hours clinical experiences must be obtained. Simulated labs are not a substitute for clinical experience. The clinical instruction shall include at least 20 hours of long term care clinical instruction in a licensed nursing home or licensed long term care facility.

In addition, Students must have a minimum of 16 hours of training in communication and interpersonal skills, infection control, safety/emergency procedures, promoting residents' independence, and respecting residents' rights prior to any direct contact with a resident.

According to Section 400.211, F.S., persons who are enrolled in, or have completed, a state approved nursing assistant training program may be employed by a licensed nursing facility for a period of four months. However, the certification requirements must be met within four months of such initial employment.

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 of the healthcare delivery system and health occupations.
02.0 Demonstrate the ability to communicate and use interpersonal skills effectively.
03.0 Demonstrate legal and ethical responsibilities.
04.0 Demonstrate an understanding of and apply wellness and disease concepts.
05.0 Recognize and practice safety and security procedures.
06.0 Recognize and respond to emergency situations.
07.0 Recognize and practice infection control procedures.
08.0 Demonstrate an understanding of information technology applications in healthcare.
09.0 Demonstrate employability skills.
10.0 Demonstrate knowledge of blood borne diseases, including HIV/AIDS.
11.0 Apply basic math and science skills.
12.0 Use verbal and written communications specific to nurse assisting.
13.0 Demonstrate legal and ethical responsibilities specific to nurse assisting.
14.0 Perform physical comfort and safety functions specific to nurse assisting.
15.0 Provide personal patient care.
16.0 Perform patient care procedures.
17.0 Apply principles of nutrition.
18.0 Provide care for geriatric patients.
19.0 Apply the principles of infection control specific to nursing assisting.
20.0 Provide biological, psychological, and social support.
21.0 Perform supervised organizational functions, following the patient plan of care.
22.0 Assist with restorative (rehabilitative) activities.
23.0 Perform skills related to the hospital setting. (optional)

Florida Department of Education
Student Performance Standards

Program Title: Nursing Assistant (Articulated)
Career Certificate Program Number: H170690

The **Basic Health Care Worker (HSC0003)** is referred to as the **Health Science Core** and is the first OCP in the majority of the Career Certificate Program health science programs. Secondary and Postsecondary students completing the health science core will not have to repeat the core in any other health science program in which it is a part. When the recommended sequence is followed, the structure allows students to complete at specified points for employment or remain for advanced training or cross-training.

Career Certificate Program Course Number: HSC0003
Occupational Completion Point: A
Basic Healthcare Worker – 90 Hours – SOC Code 31-9099

To ensure consistency whenever these courses are offered, the health science core standards (1-11) have been placed in a separate document.

Course Number: HCP0121 **Occupational Completion Point: B** **Nurse Aide and Orderly (Articulated) – SOC Code 31-1014**	
12.0	Use verbal and written communications specific to nurse assisting. – The student will be able to:
12.01	Obtain specified data from patient and family.
12.02	Utilize verbal and written information to assist with the patient's plan of care.
12.03	Demonstrate use of the communication system.
13.0	Demonstrate legal and ethical responsibilities specific to nurse assisting. – The student will be able to:
13.01	Demonstrate legal and ethical behavior within the role and scope of nursing assistant responsibilities.
13.02	Describe the purpose of the chain of communication (i.e., to resolve patient or employee problems).
13.03	Follow policies and procedures affecting the health, safety, and well-being of patients.
13.04	Recognize and report signs of substance abuse.
13.05	Demonstrate the understanding of vulnerable population abuse and reporting procedures per agency.
13.06	Follow legal guidelines in documentation.

13.07	Demonstrate methods regarding risk management including prevention and quality of care.
13.08	Exhibit behavior supporting and promoting patients' and/or residents' rights.
13.09	Recognize that a C.N.A. must self-report any crimes they've been involved in within 30 days of the offense in accordance with (FS 456.0727(1) w).
13.10	Discuss Florida certified nursing assistant rules including role limitations.
13.11	Recognize potential for and prevention of medical errors.
13.12	Discuss proper procedures to follow regarding medical errors.
14.0	Perform physical comfort and safety functions specific to nurse assisting. – The student will be able to:
14.01	Maintain patient units and equipment.
14.02	Maintain service areas on the units including supplies and equipment.
14.03	Observe, report, and record changes in the patient's behavior daily, including mental awareness.
14.04	Adjust bed and side-rails.
14.05	Lift, hold, and transfer patients including the use of the various assistive devices and equipment, utilizing proper body mechanics and patient safety measures.
14.06	Turn and position patient.
14.07	Demonstrate the proper use of a gait belt in both transfer and ambulation.
14.08	Transfer patient to stretcher.
14.09	Apply protective devices as directed (e.g., vest and belt).
14.10	Apply comfort devices as directed (e.g., foot-board, over-bed cradle, alternating pressure mattress).
14.11	Assist patient to dangle.
14.12	Assist patient in ambulation, including the use of crutch, cane, or walker.
14.13	Assist patient in using wheelchair.
14.14	Assist patient with care and use of prosthetic/orthotic devices.
14.15	Describe emergency procedures utilized in the clinical area(s).
14.16	Implement appropriate regulatory and accrediting agency patient safety guidelines.

15.0	Provide personal patient care. -- The student will be able to:
	15.01 Give bed bath; observe and report changes in patient including skin and level of consciousness.
	15.02 Administer back rub.
	15.03 Assist with shower or tub bath, including the use of specialty tubs.
	15.04 Assist patient with sink, tub, shower, or bed shampoo.
	15.05 Demonstrate the use of a safety and/or electric razor to shave the patient.
	15.06 Groom patient, including hair, skin, foot, hand, and nail care.
	15.07 Assist with and/or administer oral hygiene including denture care.
	15.08 Assist patient with toileting using various types of restorative and rehabilitative equipment.
	15.09 Assist patient to dress.
	15.10 Assist patient with meals.
	15.11 Assist with bowel and bladder training.
	15.12 Assist and/ or provide perineal care.
	15.13 Empty, measure and record urinary output and/or drainage.
	15.14 Assist patient with both donning and doffing prosthesis and brace.
	15.15 Demonstrate application and use of a leg bag, leg strap, and dignity bag.
	15.16 Monitor and assist with the drainage of urostomy bags and colostomy bags.
16.0	Perform patient care procedures. – The student will be able to:
	16.01 Demonstrate ability to accurately measure, record and report vital signs.
	16.02 Assist with the admission of a patient and/or resident.
	16.03 Assist with transfer of patient.
	16.04 Assist with discharge of patient.
	16.05 Make unoccupied/occupied bed.

16.06	Measure and record patient's height and weight.
16.07	Assist patient in passive range-of-motion exercises.
16.08	Apply anti-embolic hose and sequential compression devices.
16.09	Collect, strain, and/or test routine urine specimen.
16.10	Collect timed urine specimen.
16.11	Collect clean-catch (midstream-voided) urine specimen.
16.12	Record fluid intake and output (I&O).
16.13	Observe, record, and report patient's emesis.
16.14	Monitor and provide with care of urinary catheters and drainage systems for both males and females.
16.15	Assist with ostomy care including emptying or changing ostomy bags that do not adhere to the skin.
16.16	Collect stool specimen.
16.17	Perform postmortem care.
16.18	Maintain patient-belongings list.
16.19	Assist the nurse with care of the patient with complex medical needs.
16.20	Assist with the collection of a sputum specimen.
17.0	Apply principles of nutrition. – The student will be able to:
17.01	Identify nutrients and food groups.
17.02	Explain regional, cultural, and religious food references.
17.03	Describe special diets.
17.04	Prepare a basic food plan.
17.05	Check patient's diet tray for accuracy.
17.06	Demonstrate knowledge of the need for thickened liquids and fluid consistency.
17.07	Identify methods of maintaining fluid balance including forcing and restricting fluids.

	17.08 Monitor and document nutritional intake.
18.0	Provide care for geriatric patients. – The student will be able to:
	18.01 Identify methods and procedures to prevent pressure ulcers.
	18.02 Identify methods to prevent falls in the elderly.
	18.03 Identify safety principles as related to the elderly.
	18.04 Describe general characteristics, particular needs, and problems of the elderly.
	18.05 Identify attitudes and living habits that promote positive mental and physical health for the elderly.
	18.06 Distinguish between fact and fallacy about the aging process.
	18.07 Identify the need for community resources and services available to the elderly and their family.
	18.08 Apply reality orientation techniques and validation therapy unless it is contraindicated by the patient diagnosis (Alzheimer's or dementia).
	18.09 Provide and involve patients in diversional activities.
	18.10 Identify common alterations in elderly patient behavior.
	18.11 Provide care for patients with special needs (e.g., impaired hearing, impaired vision, immobility, impaired body functions, cognitively impaired (dementia)).
	18.12 Recognize and respond appropriately to symptoms of common diseases, including dementia, depression/suicide and Alzheimer's.
	18.13 Demonstrate awareness of common behaviors in drug use and abuse in the elderly.
	18.14 Report concerns to the nurse related to drug use and abuse in the elderly patient.
	18.15 Identify components of the grief process.
	18.16 Demonstrate an understanding of end of life care, hospice and palliative care.
19.0	Apply the principles of infection control specific to nursing assisting. – The student will be able to:
	19.01 Provide care for patients with infectious diseases applying the principles of "Standard Precautions" utilized with all patients as well as special procedures required.
	19.02 Set up isolation unit using proper personal protective equipment (PPE) for all types of isolation including donning and removing PPE appropriately.
	19.03 Follow isolation procedure with food tray, garments, and other materials.
	19.04 Collect specimen from patient in isolation.

20.0	Provide biological, psychological, and social support. – The student will be able to:
	20.01 Discuss family roles and their significance to health.
	20.02 Respond to patient and family emotional needs.
21.0	Perform supervised organizational functions, following the patient plan of care. – The student will be able to:
	21.01 Organize patient-care assignments.
	21.02 Complete assignments accurately and in a timely manner.
22.0	Assist with restorative (rehabilitative) activities. – The student will be able to:
	22.01 List the purposes of restorative (rehabilitation) program.
	22.02 Assist patient with specified restorative (rehabilitation) needs.
	22.03 Assist patients/residents to reach the optimum level of independence.
23.0	Perform skills related to the hospital setting. (optional) – The student will be able to:
	23.01 Care for hospital equipment and supplies.
	23.02 Transfer patient to stretcher.
	23.03 Assist patient to apply binders.
	23.04 Care for patient in skin and skeletal traction.
	23.05 Assist with pre-operative and post-operative patient care.
	23.06 Reinforce dressings under the supervision of the RN/LPN.
	23.07 Obtain and record an apical pulse.
	23.08 Obtain and record an apical-radial pulse.
	23.09 Obtain and record pedal pulse.
	23.10 Provide cast care and/or pin care.
	23.11 Provide care for eye glasses, artificial eyes, and contact lens.

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 program focuses on broad, transferable skills and stresses understanding and demonstration of the following elements of the health care industry; planning, management, finance, technical and production skills, underlying principles of technology, labor issues, community issues and health, safety, and environmental issues.

This program meets the Department of Health's education requirements for HIV/AIDS, Domestic Violence and Prevention of Medical Errors. Although not a requirement for initial licensure, it is a requirement for renewal, therefore the instructor may provide a certificate for renewal purposes to the student verifying these requirements have been met.

If students in this program are seeking a licensure, certificate or registration through the Department of Health, please refer to 456.0635 F.S. for more information on disqualification for a license, certificate, or registration through the Department of Health.

The length of this program is 165 hours. Completion of this program should enable the postsecondary student to be given advanced standing in the Patient Care Technician and Patient Care Assistant programs.

Outcomes 01-11 are referred to as the Health Science Core and do not have to be completed if the student has previously completed the Core in another health occupations program at any level. The Core should be taken first or concurrently with the first course in the program. Following the successful completion of the core, the student is eligible to take the National Health Care Foundation Skill Standards Assessment with instructor approval and the completion of a portfolio.

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)

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.

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: **Patient Care Assistant**
Program Type: **Career Preparatory**
Career Cluster: **Health Science**

Career Certificate Program	
Program Number	H170692
CIP Number	0351390202
Grade Level	30, 31
Standard Length	290 hours
Teacher Certification	Refer to the **Program Structure** section.
CTSO	HOSA: Future Health Professionals
SOC Codes (all applicable)	31-1014 Nursing Assistants 31-1011 Home Health Aides 31-9099 Healthcare Support Workers, All Other
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 the Health Science 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 Health Science career cluster.

This program is designed to prepare students for employment as cross trained nursing assistants (SOC 31-1014 Nursing Assistants). All others, Patient Care Assistants, Nursing Aides and Orderlies, or Home Health Aides. This program offers a broad foundation of knowledge and skills, expanding the traditional role of the nursing assistant, for both acute and long term care settings.

The program focuses on broad, transferable skills and stresses understanding and demonstration of the following elements of the health care industry; planning, management, finance, technical and production skills, underlying principles of technology, labor issues, community issues and health, safety, and environmental issues

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 4 occupational completion points.

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	HSC0003	Basic Healthcare Worker	REG NURSE 7 G LPN 7 G* PRAC NURSE @7 %7%G *(Must be a Registered Nurse)	90 hours	31-9099
B	HCP0121	Nurse Aide and Orderly (Articulated)		75 hours	31-1014
C	HCP0332	Advanced Home Health Aide	REG NURSE 7 G PRAC NURSE @7 %7%G *(Must be a Registered Nurse)	50 hours	31-1011
D	HCP0020	Patient Care Assistant		75 hours	31-9099

**** The LPN 7 G district issued certification is a practical nurse. A practical nurse can only be utilized as an instructor of the CNA training program when they are supervised by the program coordinator which must be a registered nurse. Please refer to F.A.C. 64B9-15.005 for requirements.***

Regulated Programs

Successful completion of this program from an approved school prepares the student for certification for employment as a Nursing Assistant in a nursing home, in accordance with Chapter 464.203, Florida Statutes. To be approved, this program must be supervised by a registered nurse and have follow the faculty qualifications set forth in 64B9-15.005 (3) (a) F.A.C.

New programs must be approved by the Board of Nursing, Department of Health prior to enrolling students.

Those students who satisfactorily complete an approved course are eligible to apply to take the national nursing assistant examination being utilized in Florida, in accordance with Chapter 464.203, F.S. This program includes both Acute and Long Term Care.

In accordance with 64B9-15.005 F.A.C., students will perform nursing skills in the clinical and simulated laboratory settings under the supervision of a qualified instructor. The recommended teacher/student ratio in the clinical area is 1 to 12, but the maximum is 1 to 15.

In accordance with 64B9-15.006 F.A.C., Clinical and simulated laboratory learning experiences must correlate with 80 hours of didactic instruction In addition, a minimum of 40 hours clinical experiences must be obtained. Simulated labs are not a substitute for clinical experience. The clinical instruction shall include at least 20 hours of long term care clinical instruction in a licensed nursing home or licensed long term care facility.

In addition, Students must have a minimum of 16 hours of training in communication and interpersonal skills, infection control, safety/emergency procedures, promoting residents' independence, and respecting residents' rights prior to any direct contact with a resident.

According to Section 400.211, F.S., persons who are enrolled in, or have completed, a state approved nursing assistant training program may be employed by a licensed nursing facility for a period of four months. However, the certification requirements must be met within four months of such initial employment.

Students must have a minimum of 16 hours of training in communication and interpersonal skills, infection control, safety/emergency procedures, promoting residents' independence, and respecting residents' rights prior to any direct contact with a resident.

Please refer to 42CFR§484.36 for the clinical requirements for the Home Health Aide program.

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 of the healthcare delivery system and health occupations.
02.0 Demonstrate the ability to communicate and use interpersonal skills effectively.
03.0 Demonstrate legal and ethical responsibilities.
04.0 Demonstrate an understanding of and apply wellness and disease concepts.
05.0 Recognize and practice safety and security procedures.
06.0 Recognize and respond to emergency situations.
07.0 Recognize and practice infection control procedures.
08.0 Demonstrate an understanding of information technology applications in healthcare.
09.0 Demonstrate employability skills.
10.0 Demonstrate knowledge of blood borne diseases, including HIV/AIDS.
11.0 Apply basic math and science skills.
12.0 Use verbal and written communications specific to the nursing assistant.
13.0 Demonstrate legal and ethical responsibilities specific to the nursing assistant.
14.0 Perform physical comfort and safety functions specific to the nursing assistant.
15.0 Provide personal patient care.
16.0 Perform patient care procedures.
17.0 Apply principles of nutrition.
18.0 Provide care for geriatric patients.
19.0 Apply the principles of infection control specific to the nursing assistant.
20.0 Provide biological, psychological, and social support.
21.0 Perform supervised organizational functions, following the patient plan of care.
22.0 Assist with restorative (rehabilitative) activities.
23.0 Perform skills related to the hospital setting. (optional)
24.0 Use verbal and written communications specific to home health aide.
25.0 Demonstrate legal and ethical responsibilities specific to home health aide.
26.0 Perform physical comfort and safety functions specific to home health aide.
27.0 Apply principles of nutrition specific to home health aide.
28.0 Apply the principles of infection control specific to home health aide.
29.0 Perform home health-care services.
30.0 Perform nursing assistant skills related to the hospital setting.
31.0 Provide nursing assistant care for the adult patient.

Florida Department of Education
Student Performance Standards

Program Title: Patient Care Assistant
Career Certificate Program Number: H170692

The **Basic Health Care Worker (HSC0003)** is referred to as the **Health Science Core** and is the first OCP in the majority of the Career Certificate Program health science programs. Secondary and Postsecondary students completing the health science core will not have to repeat the core in any other health science program in which it is a part. When the recommended sequence is followed, the structure allows students to complete at specified points for employment or remain for advanced training or cross-training.

Career Certificate Program Course Number: HSC0003
Occupational Completion Point: A
Basic Healthcare Worker – 90 Hours – SOC Code 31-9099

To ensure consistency whenever these courses are offered, the health science core standards (1-11) have been placed in a separate document.

Course Number: HCP0121 **Occupational Completion Point: B** **Nurse Aide and Orderly (Articulated) – SOC Code 31-1014**	
The following intended outcomes 12-23 should be taught together as a module to achieve the occupational completion point of Articulated Nursing Assistant. The average achieving student should be able to complete the module in 75 clock hours. The standard length for the Nursing Assistant (Articulated) program including the core is 165 hours but cannot be less than 120 hours.	
12.0	Use verbal and written communications specific to nurse assisting. – The student will be able to:
	12.01 Obtain specified data from patient and family.
	12.02 Utilize verbal and written information to assist with the patient's plan of care.
	12.03 Demonstrate use of the communication system.
13.0	Demonstrate legal and ethical responsibilities specific to nurse assisting. – The student will be able to:
	13.01 Demonstrate legal and ethical behavior within the role and scope of nursing assistant responsibilities.
	13.02 Describe the purpose of the chain of communication (i.e., to resolve patient or employee problems).
	13.03 Follow policies and procedures affecting the health, safety, and well-being of patients.
	13.04 Recognize and report signs of substance abuse.

13.05	Demonstrate the understanding of vulnerable population abuse and reporting procedures per agency.
13.06	Follow legal guidelines in documentation.
13.07	Demonstrate methods regarding risk management including prevention and quality of care.
13.08	Exhibit behavior supporting and promoting patients' and/or residents' rights.
13.09	Recognize that a C.N.A. must self-report any crimes they've been involved in within 30 days of the offense in accordance with (FS 456.0727(1) w).
13.10	Discuss Florida certified nursing assistant rules including role limitations.
13.11	Recognize potential for and prevention of medical errors.
13.12	Discuss proper procedures to follow regarding medical errors.
14.0	Perform physical comfort and safety functions specific to nurse assisting. – The student will be able to:
14.01	Maintain patient units and equipment.
14.02	Maintain service areas on the units including supplies and equipment.
14.03	Observe, report, and record changes in the patient's behavior daily, including mental awareness.
14.04	Adjust bed and side-rails.
14.05	Lift, hold, and transfer patients including the use of the various assistive devices and equipment, utilizing proper body mechanics and patient safety measures.
14.06	Turn and position patient.
14.07	Demonstrate the proper use of a gait belt in both transfer and ambulation.
14.08	Transfer patient to stretcher.
14.09	Apply protective devices as directed (e.g., vest and belt).
14.10	Apply comfort devices as directed (e.g., foot-board, over-bed cradle, alternating pressure mattress).
14.11	Assist patient to dangle.
14.12	Assist patient in ambulation, including the use of crutch, cane, or walker.
14.13	Assist patient in using wheelchair.
14.14	Assist patient with care and use of prosthetic/orthotic devices.

	14.15 Describe emergency procedures utilized in the clinical area(s).
	14.16 Implement appropriate regulatory and accrediting agency patient safety guidelines.
15.0	Provide personal patient care. -- The student will be able to:
	15.01 Give bed bath; observe and report changes in patient including skin and level of consciousness.
	15.02 Administer back rub.
	15.03 Assist with shower or tub bath, including the use of specialty tubs.
	15.04 Assist patient with sink, tub, shower, or bed shampoo.
	15.05 Demonstrate the use of a safety and/or electric razor to shave the patient.
	15.06 Groom patient, including hair, skin, foot, hand, and nail care.
	15.07 Assist with and/or administer oral hygiene including denture care.
	15.08 Assist patient with toileting using various types of restorative and rehabilitative equipment.
	15.09 Assist patient to dress.
	15.10 Assist patient with meals.
	15.11 Assist with bowel and bladder training.
	15.12 Assist and/ or provide perineal care.
	15.13 Empty, measure and record urinary output and/or drainage.
	15.14 Assist patient with both donning and doffing prosthesis and brace.
	15.15 Demonstrate application and use of a leg bag, leg strap and dignity bag.
	15.16 Monitor and assist with the drainage of urostomy bags and colostomy bags.
16.0	Perform patient care procedures. – The student will be able to:
	16.01 Demonstrate ability to accurately measure, record, and report vital signs.
	16.02 Assist with the admission of a patient and/or resident.
	16.03 Assist with transfer of patient.

16.04	Assist with discharge of patient.
16.05	Make unoccupied/occupied bed.
16.06	Measure and record patient's height and weight.
16.07	Assist patient in passive range-of-motion exercises.
16.08	Apply anti-embolic hose and sequential compression devices.
16.09	Collect, strain, and/or test routine urine specimen.
16.10	Collect timed urine specimen.
16.11	Collect clean-catch (midstream-voided) urine specimen.
16.12	Record fluid intake and output (I&O).
16.13	Observe, record, and report patient's emesis.
16.14	Monitor and provide with care of urinary catheters and drainage systems for both males and females.
16.15	Assist with ostomy care including emptying or changing ostomy bags that do not adhere to the skin.
16.16	Collect stool specimen.
16.17	Perform postmortem care.
16.18	Maintain patient-belongings list.
16.19	Assist the nurse with care of the patient with complex medical needs.
16.20	Assist with the collection of a sputum specimen.
17.0	Apply principles of nutrition. – The student will be able to:
17.01	Identify nutrients and food groups.
17.02	Explain regional, cultural, and religious food references.
17.03	Describe special diets.
17.04	Prepare a basic food plan.
17.05	Check patient's diet tray for accuracy.

	17.06 Demonstrate knowledge of the need for thickened liquids and fluid consistency.
	17.07 Identify methods of maintaining fluid balance including forcing and restricting fluids.
	17.08 Monitor and document nutritional intake.
18.0	Provide care for geriatric patients. – The student will be able to:
	18.01 Identify methods and procedures to prevent pressure ulcers.
	18.02 Identify methods to prevent falls in the elderly.
	18.03 Identify safety principles as related to the elderly.
	18.04 Describe general characteristics, particular needs, and problems of the elderly.
	18.05 Identify attitudes and living habits that promote positive mental and physical health for the elderly.
	18.06 Distinguish between fact and fallacy about the aging process.
	18.07 Identify the need for community resources and services available to the elderly and their family.
	18.08 Apply reality orientation techniques and validation therapy unless it is contraindicated by the patient diagnosis (Alzheimer's or dementia).
	18.09 Provide and involve patients in diversional activities.
	18.10 Identify common alterations in elderly patient behavior.
	18.11 Provide care for patients with special needs (e.g., impaired hearing, impaired vision, immobility, impaired body functions, cognitively impaired (dementia)).
	18.12 Recognize and respond appropriately to symptoms of common diseases, including dementia, depression/suicide and Alzheimer's.
	18.13 Demonstrate awareness of common behaviors in drug use and abuse in the elderly.
	18.14 Report concerns to the nurse related to drug use and abuse in the elderly patient.
	18.15 Identify components of the grief process.
	18.16 Demonstrate an understanding of end of life care, hospice, and palliative care.
19.0	Apply the principles of infection control specific to nursing assisting. – The student will be able to:
	19.01 Provide care for patients with infectious diseases applying the principles of "Standard Precautions" utilized with all patients as well as special procedures required.
	19.02 Set up isolation unit using proper personal protective equipment (PPE) for all types of isolation including donning and removing PPE appropriately.

	19.03 Follow isolation procedure with food tray, garments, and other materials.
	19.04 Collect specimen from patient in isolation.
20.0	Provide biological, psychological, and social support. – The student will be able to:
	20.01 Discuss family roles and their significance to health.
	20.02 Respond to patient and family emotional needs.
21.0	Perform supervised organizational functions, following the patient plan of care. – The student will be able to:
	21.01 Organize patient-care assignments.
	21.02 Complete assignments accurately and in a timely manner.
22.0	Assist with restorative (rehabilitative) activities. – The student will be able to:
	22.01 List the purposes of restorative (rehabilitation) program.
	22.02 Assist patient with specified restorative (rehabilitation) needs.
	22.03 Assist patients/residents to reach the optimum level of independence.
23.0	Perform skills related to the hospital setting. (optional) – The student will be able to:
	23.01 Care for hospital equipment and supplies.
	23.02 Transfer patient to stretcher.
	23.03 Assist patient to apply binders.
	23.04 Care for patient in skin and skeletal traction.
	23.05 Assist with pre-operative and post-operative patient care.
	23.06 Reinforce dressings under the supervision of the RN/LPN.
	23.07 Obtain and record an apical pulse.
	23.08 Obtain and record an apical-radial pulse.
	23.09 Obtain and record pedal pulse.
	23.10 Provide cast care and/or pin care.

	23.11 Provide care for eye glasses, artificial eyes, and contact lens.

Course number: HCP0332
Occupational completion point: C
Advanced Home Health Aide – 50 hours – SOC Code 31-1011

Students in this module have already completed a Nursing Assistant program. After completing this module, the student will have achieved the occupational completion point of Advanced Home Health Aide (a home health aide who is also a nursing assistant). This program also meets the requirements of Home Health Aide as stated in Rules of the Department of Health and Rehabilitative services, Division of Health, Chapter 10D-68 - Minimum Standards for Home Health Agencies.

Please refer to 42CFR§484.36 for the clinical and faculty requirements for the Home Health Aide course.

The recommended length of instruction for this module is 50 clock hours but no less than 20. Beginning 1995-96, secondary students who have completed the course 8417210 Nursing Assistant should take this module to become a home health aide.

24.0	Use verbal and written communications specific to home health aide. -- The student will be able to:
	24.01 Obtain specified data from patient and family/significant others.
	24.02 Utilize verbal and written information to contribute to the patient's plan of care.
	24.03 Recognizes cultural differences in family.
25.0	Demonstrate legal and ethical responsibilities specific to home health aide. -- The student will be able to:
	25.01 Demonstrate legal and ethical behavior within the role and scope of home health aide responsibilities.
	25.02 Follow policies and procedures affecting the health, safety, and well-being of patients in the home setting.
26.0	Perform physical comfort and safety functions specific to home health aide. -- The student will be able to:
	26.01 Maintain a clean and safe home environment for the patient.
	26.02 Identify emergency evacuation procedures with adaptations to the home setting.
27.0	Apply principles of nutrition specific to home health aide. -- The student will be able to:
	27.01 List factors that must be considered when purchasing food.
	27.02 List factors that must be considered when storing food.
	27.03 Discuss preparation and serving of trays in the home.
28.0	Apply the principles of infection control specific to home health aide. -- The student will be able to:

	28.01 Provide care for patients with infectious diseases in the home.
	28.02 Follow isolation procedures with food tray, garments, and other materials in the home.
	28.03 Utilize standard precautions in all home care.
29.0	Perform home health-care services. -- The student will be able to:
	29.01 Follow an established work plan with the patient and family.
	29.02 Perform patient-related cleaning tasks and laundry.
	29.03 Identify methods for medication storage.
	29.04 Assist patient with taking self-administered prescribed medication in the home and identify possible side effects and emergency procedures for adverse reactions in accordance with F.A.C. 59A-8.0095.
	29.05 Demonstrate how to utilize specified equipment and supplies in the home.

Course Number: HCP0020
Occupational Completion Point: D
Patient Care Assistant – 75 Hours – SOC Code 31-9099

Students enrolled in this module have previously completed a Nursing Assistant and Home Health Aide program and are adding these skills to work in a health care facility other than a nursing home. The average achieving student should complete this module in 75 clock hours. The occupational completion point Patient Care Assistant can only be achieved when this module is completed plus the modules/or credentials for Home Health Aide and Nursing Assistant are satisfied.

30.0	Perform nursing assistant skills related to the hospital setting. -- The student will be able to:
	30.01 Care for hospital equipment and supplies.
	30.02 Transfer patient to stretcher.
	30.03 Prepare hot and cold applications for nurse to apply them.
	30.04 Assist patient to apply binders.
	30.05 Care for patient in skin and skeletal traction.
	30.06 Assist with pre-operative and post-operative patient care.
	30.07 Reinforce dressings.
	30.08 Practice nursing procedures from the nursing assistant module in the hospital setting.
31.0	Provide nursing assistant care for the adult patient. -- The student will be able to:

31.01	Assist with physical examination.
31.02	Care for patients receiving oxygen therapy.
31.03	Change an unsterile dressing.
31.04	Take an apical pulse.
31.05	Measure for an apical-radial pulse deficit.
31.06	Take pedal pulse.
31.07	Give cast care and/or pin care.
31.08	Give artificial eye/contact lens care.
31.09	Demonstrate understanding and knowledge of needs of patients with specific common health problems.
31.10	Measure pulse oximetry and report decreasing levels of O_2 saturation.

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

This program also meets the requirements of home health aide as stated in rules of the department of health and rehabilitative services, division of health, chapter 10d-68 - minimum standards for home health agencies.

Please refer to 42CFR§484.36 for the clinical and faculty requirements for the Home Health Aide course.

This program meets the Department of Health's education requirements for HIV/AIDS, Domestic Violence and Prevention of Medical Errors. Although not a requirement for initial licensure, it is a requirement for renewal, therefore the instructor may provide a certificate for renewal purposes to the student verifying these requirements have been met.

If students in this program are seeking a licensure, certificate or registration through the Department of Health, please refer to 456.0635 F.S. for more information on disqualification for a license, certificate, or registration through the Department of Health.

Students who have completed the Health Science Core may articulate to this program. For teacher certification requirements for the remaining modules please check the certification diagram and/or the individual module.

Completion of this program should enable the postsecondary student to be given advanced standing in the Practical Nursing program H170607 as well as the ability to enter the Patient Care Technician program at OCP E.

Outcomes 01-11 are referred to as the Health Science Core and do not have to be completed if the student has previously completed the Core in another health occupations program at any level. The Core should be taken first or concurrently with the first course in the program. Following the successful completion of the core, the student is eligible to take the National Health Care Foundation Skill Standards Assessment with instructor approval and the completion of a portfolio.

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)

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.

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: **Patient Care Technician**
Program Type: **Career Preparatory**
Career Cluster: **Health Science**

Career Certificate Program	
Program Number	H170694
CIP Number	0351390205
Grade Level	30, 31
Standard Length	600 hours
Teacher Certification	Refer to the **Program Structure** section.
CTSO	HOSA: Future Health Professionals
SOC Codes (all applicable)	31-1014 Nursing Assistants 31-1011 Home Health Aides 31-9099 Healthcare Support Workers, All Other 29-2099 Health Technologists and Technicians, All Other
Basic Skills Level	Mathematics: 10 Language: 10 Reading: 10

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 Health Science 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 Health Science career cluster.

This program is designed to prepare students for employment as advanced cross trained nursing assistants (patient care technicians), SOC Code 29-2099.00 (Health Technologists and Technicians), Health Care Technicians, Patient Care Assistants, Nursing Aides and Orderlies (66008439), Home Health Aides (66011456), or Allied Health Assistants. This program offers a broad foundation of knowledge and skills, expanding the traditional role of the nursing assistant, for both acute and long term care settings.

The program focuses on broad, transferable skills and stresses understanding and demonstration of the following elements of the health care industry; planning, management, finance, technical and production skills, underlying principles of technology, labor issues, community issues and health, safety, and environmental issues.

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 7 occupational completion points.

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	HSC0003	Basic Healthcare Worker	REG NURSE 7 G LPN 7 G* PRAC NURSE @7 %7%G *(Must be a Registered Nurse)	90 hours	31-9099
B	HCP0121	Nurse Aide and Orderly (Articulated)		75 hours	31-1014
C	HCP0332	Advanced Home Health Aide	REG NURSE 7 G PRAC NURSE @7 %7%G *(Must be a Registered Nurse)	50 hours	31-1011
D	HCP0020	Patient Care Assistant		75 hours	31-9099
E	HSC0016	Allied Health Assistant		150 hours	31-9099
F	MEA0580	Advanced Allied Health Assistant		100 hours	31-9099
G	PRN0094	Patient Care Technician		60 hours	31-9099

**** The LPN 7 G district issued certification is a practical nurse. A practical nurse can only be utilized as an instructor of the CNA training program when they are supervised by the program coordinator which must be a registered nurse. Please refer to F.A.C. 64B9-15.005 for requirements.***

Regulated Programs

Successful completion of this program from an approved school prepares the student for certification for employment as a Nursing Assistant in a nursing home, in accordance with Chapter 464.203, Florida Statutes. To be approved, this program must be supervised by a registered nurse and have follow the faculty qualifications set forth in 64B9-15.005 (3) (a) F.A.C.

New programs must be approved by the Board of Nursing, Department of Health prior to enrolling students.

Those students who satisfactorily complete an approved course are eligible to apply to take the national nursing assistant examination being utilized in Florida, in accordance with Chapter 464.203, F.S. This program includes both Acute and Long Term Care.

In accordance with 64B9-15.005 F.A.C., students will perform nursing skills in the clinical and simulated laboratory settings under the supervision of a qualified instructor. The recommended teacher/student ratio in the clinical area is 1 to 12, but the maximum is 1 to 15.

In accordance with 64B9-15.006 F.A.C., Clinical and simulated laboratory learning experiences must correlate with 80 hours of didactic instruction In addition, a minimum of 40 hours clinical experiences must be obtained. Simulated labs are not a substitute for clinical experience. The clinical instruction shall include at least 20 hours of long term care clinical instruction in a licensed nursing home or licensed long term care facility.

In addition, Students must have a minimum of 16 hours of training in communication and interpersonal skills, infection control, safety/emergency procedures, promoting residents' independence, and respecting residents' rights prior to any direct contact with a resident.

According to Section 400.211, F.S., persons who are enrolled in, or have completed, a state approved nursing assistant training program may be employed by a licensed nursing facility for a period of four months. However, the certification requirements must be met within four months of such initial employment.

Students must have a minimum of 16 hours of training in communication and interpersonal skills, infection control, safety/emergency procedures, promoting residents' independence, and respecting residents' rights prior to any direct contact with a resident.

Please refer to 42CFR§484.36 for the clinical requirements for the Home Health Aide program.

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 of the healthcare delivery system and health occupations.
02.0 Demonstrate the ability to communicate and use interpersonal skills effectively.
03.0 Demonstrate legal and ethical responsibilities.
04.0 Demonstrate an understanding of and apply wellness and disease concepts.
05.0 Recognize and practice safety and security procedures.
06.0 Recognize and respond to emergency situations.
07.0 Recognize and practice infection control procedures.
08.0 Demonstrate an understanding of information technology applications in healthcare.
09.0 Demonstrate employability skills.
10.0 Demonstrate knowledge of blood borne diseases, including HIV/AIDS.
11.0 Apply basic math and science skills.
12.0 Use verbal and written communications specific to the nursing assistant.
13.0 Demonstrate legal and ethical responsibilities specific to the nursing assistant.
14.0 Perform physical comfort and safety functions specific to the nursing assistant.
15.0 Provide personal patient care.
16.0 Perform patient care procedures.
17.0 Apply principles of nutrition.
18.0 Provide care for geriatric patients.
19.0 Apply the principles of infection control specific to the nursing assistant.
20.0 Provide biological, psychological, and social support.
21.0 Perform supervised organizational functions, following the patient plan of care.
22.0 Assist with restorative (rehabilitative) activities.
23.0 Perform skills related to the hospital setting. (optional)
24.0 Use verbal and written communications specific to home health aide.
25.0 Demonstrate legal and ethical responsibilities specific to home health aide.
26.0 Perform physical comfort and safety functions specific to home health aide.
27.0 Apply principles of nutrition specific to home health aide.
28.0 Apply the principles of infection control specific to home health aide.
29.0 Perform home health-care services.
30.0 Perform nursing assistant skills related to the hospital setting.
31.0 Provide nursing assistant care for the adult patient.
32.0 Perform skills representative of 1-3 major allied health areas as determined by local labor market demand.
33.0 Successfully complete a clinical rotation in the selected major allied health areas.
34.0 Perform additional skills from the previous module which are in the aide level and do not go beyond the scope of practice of unlicensed assistive personnel.
35.0 Successfully complete a clinical rotation in the selected major allied health areas.
36.0 Demonstrate knowledge of organizational and effective team member skills.
37.0 Practice organizational and effective team member skills in a clinical setting.

Florida Department of Education
Student Performance Standards

Program Title: Patient Care Technician
Career Certificate Program Number: H170694

The **Basic Health Care Worker (HSC0003)** is referred to as the **Health Science Core** and is the first OCP in the majority of the Career Certificate Program health science programs. Secondary and Postsecondary students completing the health science core will not have to repeat the core in any other health science program in which it is a part. When the recommended sequence is followed, the structure allows students to complete at specified points for employment or remain for advanced training or cross-training.

Career Certificate Program Course Number: HSC0003
Occupational Completion Point: A
Basic Healthcare Worker – 90 Hours – SOC Code 31-9099

To ensure consistency whenever these courses are offered, the health science core standards (1-11) have been placed in a separate document.

Course Number: HCP0121 **Occupational Completion Point: B** **Nurse Aide and Orderly (Articulated) – SOC Code 31-1014**	
The following intended outcomes 12-23 should be taught together as a module to achieve the occupational completion point of Articulated Nursing Assistant. The average achieving student should be able to complete the module in 75 clock hours. The standard length for the Nursing Assistant (Articulated) program including the core is 165 hours but cannot be less than 120 hours.	
12.0	Use verbal and written communications specific to nurse assisting. – The student will be able to:
	12.01 Obtain specified data from patient and family.
	12.02 Utilize verbal and written information to assist with the patient's plan of care.
	12.03 Demonstrate use of the communication system.
13.0	Demonstrate legal and ethical responsibilities specific to nurse assisting. – The student will be able to:
	13.01 Demonstrate legal and ethical behavior within the role and scope of nursing assistant responsibilities.
	13.02 Describe the purpose of the chain of communication (i.e., to resolve patient or employee problems).
	13.03 Follow policies and procedures affecting the health, safety, and well-being of patients.
	13.04 Recognize and report signs of substance abuse.

13.05	Demonstrate the understanding of vulnerable population abuse and reporting procedures per agency.
13.06	Follow legal guidelines in documentation.
13.07	Demonstrate methods regarding risk management including prevention and quality of care.
13.08	Exhibit behavior supporting and promoting patients' and/or residents' rights.
13.09	Recognize that a C.N.A. must self-report any crimes they've been involved in within 30 days of the offense in accordance with (FS 456.0727(1) w).
13.10	Discuss Florida certified nursing assistant rules including role limitations.
13.11	Recognize potential for and prevention of medical errors.
13.12	Discuss proper procedures to follow regarding medical errors.
14.0	Perform physical comfort and safety functions specific to nurse assisting. – The student will be able to:
14.01	Maintain patient units and equipment.
14.02	Maintain service areas on the units including supplies and equipment.
14.03	Observe, report, and record changes in the patient's behavior daily, including mental awareness.
14.04	Adjust bed and side-rails.
14.05	Lift, hold, and transfer patients including the use of the various assistive devices and equipment, utilizing proper body mechanics and patient safety measures.
14.06	Turn and position patient.
14.07	Demonstrate the proper use of a gait belt in both transfer and ambulation.
14.08	Transfer patient to stretcher.
14.09	Apply protective devices as directed (e.g., vest and belt).
14.10	Apply comfort devices as directed (e.g., foot-board, over-bed cradle, alternating pressure mattress).
14.11	Assist patient to dangle.
14.12	Assist patient in ambulation, including the use of crutch, cane, or walker.
14.13	Assist patient in using wheelchair.
14.14	Assist patient with care and use of prosthetic/orthotic devices.

	14.15 Describe emergency procedures utilized in the clinical area(s).
	14.16 Implement appropriate regulatory and accrediting agency patient safety guidelines.
15.0	Provide personal patient care. -- The student will be able to:
	15.01 Give bed bath; observe and report changes in patient including skin and level of consciousness.
	15.02 Administer back rub.
	15.03 Assist with shower or tub bath, including the use of specialty tubs.
	15.04 Assist patient with sink, tub, shower, or bed shampoo.
	15.05 Demonstrate the use of a safety and/or electric razor to shave the patient.
	15.06 Groom patient, including hair, skin, foot, hand and nail care.
	15.07 Assist with and/or administer oral hygiene including denture care.
	15.08 Assist patient with toileting using various types of restorative and rehabilitative equipment.
	15.09 Assist patient to dress.
	15.10 Assist patient with meals.
	15.11 Assist with bowel and bladder training.
	15.12 Assist and/ or provide perineal care.
	15.13 Empty, measure and record urinary output and/or drainage.
	15.14 Assist patient with both donning and doffing prosthesis and brace.
	15.15 Demonstrate application and use of a leg bag, leg strap, and dignity bag.
	15.16 Monitor and assist with the drainage of urostomy bags and colostomy bags.
16.0	Perform patient care procedures. – The student will be able to:
	16.01 Demonstrate ability to accurately measure, record and report vital signs.
	16.02 Assist with the admission of a patient and/or resident.
	16.03 Assist with transfer of patient.

16.04	Assist with discharge of patient.
16.05	Make unoccupied/occupied bed.
16.06	Measure and record patient's height and weight.
16.07	Assist patient in passive range-of-motion exercises.
16.08	Apply anti-embolic hose and sequential compression devices.
16.09	Collect, strain, and/or test routine urine specimen.
16.10	Collect timed urine specimen.
16.11	Collect clean-catch (midstream-voided) urine specimen.
16.12	Record fluid intake and output (I&O).
16.13	Observe, record, and report patient's emesis.
16.14	Monitor and provide with care of urinary catheters and drainage systems for both males and females.
16.15	Assist with ostomy care including emptying or changing ostomy bags that do not adhere to the skin.
16.16	Collect stool specimen.
16.17	Perform postmortem care.
16.18	Maintain patient-belongings list.
16.19	Assist the nurse with care of the patient with complex medical needs.
16.20	Assist with the collection of a sputum specimen.
17.0	Apply principles of nutrition. – The student will be able to:
17.01	Identify nutrients and food groups.
17.02	Explain regional, cultural, and religious food references.
17.03	Describe special diets.
17.04	Prepare a basic food plan.
17.05	Check patient's diet tray for accuracy.

	17.06 Demonstrate knowledge of the need for thickened liquids and fluid consistency.
	17.07 Identify methods of maintaining fluid balance including forcing and restricting fluids.
	17.08 Monitor and document Nutritional Intake.
18.0	Provide care for geriatric patients. – The student will be able to:
	18.01 Identify methods and procedures to prevent pressure ulcers.
	18.02 Identify methods to prevent falls in the elderly.
	18.03 Identify safety principles as related to the elderly.
	18.04 Describe general characteristics, particular needs, and problems of the elderly.
	18.05 Identify attitudes and living habits that promote positive mental and physical health for the elderly.
	18.06 Distinguish between fact and fallacy about the aging process.
	18.07 Identify the need for community resources and services available to the elderly and their family.
	18.08 Apply reality orientation techniques and validation therapy unless it is contraindicated by the patient diagnosis (Alzheimer's or dementia).
	18.09 Provide and involve patients in diversional activities.
	18.10 Identify common alterations in elderly patient behavior.
	18.11 Provide care for patients with special needs (e.g., impaired hearing, impaired vision, immobility, impaired body functions, cognitively impaired (dementia)).
	18.12 Recognize and respond appropriately to symptoms of common diseases, including dementia, depression/suicide and Alzheimer's.
	18.13 Demonstrate awareness of common behaviors in drug use and abuse in the elderly.
	18.14 Report concerns to the nurse related to drug use and abuse in the elderly patient.
	18.15 Identify components of the grief process.
	18.16 Demonstrate an understanding of end of life care, hospice and palliative care.
19.0	Apply the principles of infection control specific to nursing assisting. – The student will be able to:
	19.01 Provide care for patients with infectious diseases applying the principles of "Standard Precautions" utilized with all patients as well as special procedures required.
	19.02 Set up isolation unit using proper personal protective equipment (PPE) for all types of isolation including donning and removing PPE appropriately.

	19.03 Follow isolation procedure with food tray, garments, and other materials.
	19.04 Collect specimen from patient in isolation.
20.0	Provide biological, psychological, and social support. – The student will be able to:
	20.01 Discuss family roles and their significance to health.
	20.02 Respond to patient and family emotional needs.
21.0	Perform supervised organizational functions, following the patient plan of care. – The student will be able to:
	21.01 Organize patient-care assignments.
	21.02 Complete assignments accurately and in a timely manner.
22.0	Assist with restorative (rehabilitative) activities. – The student will be able to:
	22.01 List the purposes of restorative (rehabilitation) program.
	22.02 Assist patient with specified restorative (rehabilitation) needs.
	22.03 Assist patients/residents to reach the optimum level of independence.
23.0	Perform skills related to the hospital setting. (optional) – The student will be able to:
	23.01 Care for hospital equipment and supplies.
	23.02 Transfer patient to stretcher.
	23.03 Assist patient to apply binders.
	23.04 Care for patient in skin and skeletal traction.
	23.05 Assist with pre-operative and post-operative patient care.
	23.06 Reinforce dressings under the supervision of the RN/LPN.
	23.07 Obtain and record an apical pulse.
	23.08 Obtain and record an apical-radial pulse.
	23.09 Obtain and record pedal pulse.
	23.10 Provide cast care and/or pin care.

	23.11 Provide care for eye glasses, artificial eyes, and contact lens.

Course Number: HCP0332
Occupational Completion Point: C
Advanced Home Health Aide – 50 Hours – SOC Code 31-1011

Students in this module have already completed a Nursing Assistant program. After completing this module, the student will have achieved the occupational completion point of Advanced Home Health Aide (a home health aide who is also a nursing assistant). This program also meets the requirements of Home Health Aide as stated in Rules of the Department of Health and Rehabilitative services, Division of Health, Chapter 10D-68 - Minimum Standards for Home Health Agencies.

Please refer to 42CFR§484.36 for the clinical and faculty requirements for the Home Health Aide course.

The recommended length of instruction for this module is 50 clock hours but no less than 20. Beginning 1995-96, secondary students who have completed the course 8417210 Nursing Assistant should take this module to become a home health aide.

24.0	Use verbal and written communications specific to home health aide. -- The student will be able to:
	24.01 Obtain specified data from patient and family/significant others.
	24.02 Utilize verbal and written information to contribute to the patient's plan of care.
	24.03 Recognizes cultural differences in family.
25.0	Demonstrate legal and ethical responsibilities specific to home health aide. -- The student will be able to:
	25.01 Demonstrate legal and ethical behavior within the role and scope of home health aide responsibilities.
	25.02 Follow policies and procedures affecting the health, safety, and well-being of patients in the home setting.
26.0	Perform physical comfort and safety functions specific to home health aide. -- The student will be able to:
	26.01 Maintain a clean and safe home environment for the patient.
	26.02 Identify emergency evacuation procedures with adaptations to the home setting.
27.0	Apply principles of nutrition specific to home health aide. -- The student will be able to:
	27.01 List factors that must be considered when purchasing food.
	27.02 List factors that must be considered when storing food.
	27.03 Discuss preparation and serving of trays in the home.
28.0	Apply the principles of infection control specific to home health aide. -- The student will be able to:

	28.01 Provide care for patients with infectious diseases in the home.
	28.02 Follow isolation procedures with food tray, garments, and other materials in the home.
	28.03 Utilize standard precautions in all home care.
29.0	Perform home health-care services. -- The student will be able to:
	29.01 Follow an established work plan with the patient and family.
	29.02 Perform patient-related cleaning tasks and laundry.
	29.03 Identify methods for medication storage.
	29.04 Assist patient with taking self-administered prescribed medication in the home and identify possible side effects and emergency procedures for adverse reactions in accordance with F.A.C. 59A-8.0095.
	29.05 Demonstrate how to utilize specified equipment and supplies in the home.

Course Number: HCP0020
Occupational Completion Point: D
Patient Care Assistant – 75 Hours – SOC Code 31-9099

Students enrolled in this module have previously completed a Nursing Assistant and Home Health Aide program and are adding these skills to work in a health care facility other than a nursing home. The average achieving student should complete this module in 75 clock hours. The occupational completion point Patient Care Assistant can only be achieved when this module is completed plus the modules/or credentials for Home Health Aide and Nursing Assistant are satisfied.

30.0	Perform nursing assistant skills related to the hospital setting. -- The student will be able to:
	30.01 Care for hospital equipment and supplies.
	30.02 Transfer patient to stretcher.
	30.03 Prepare hot and cold applications for nurse to apply them.
	30.04 Assist patient to apply binders.
	30.05 Care for patient in skin and skeletal traction.
	30.06 Assist with pre-operative and post-operative patient care.
	30.07 Reinforce dressings.
	30.08 Practice nursing procedures from the nursing assistant module in the hospital setting.
31.0	Provide nursing assistant care for the adult patient. -- The student will be able to:

31.01	Assist with physical examination.
31.02	Care for patients receiving oxygen therapy.
31.03	Change an unsterile dressing.
31.04	Take an apical pulse.
31.05	Measure for an apical-radial pulse deficit.
31.06	Take pedal pulse.
31.07	Give cast care and/or pin care.
31.08	Give artificial eye/contact lens care.
31.09	Demonstrate understanding and knowledge of needs of patients with specific common health problems.
31.10	Measure pulse oximetry and report decreasing levels of O_2 saturation.

Course Number: HSC0016
Occupational Completion Point: E
Allied Health Assistant – 150 Hours – SOC Code 31-9099

Students enrolled in this module have completed the Patient Care Assistant competencies and/or are adding these skills to be a multi-skilled worker. Students will perform skills representative of one to three areas of allied health care in the laboratory and clinical settings. Major areas of allied health are defined as physical therapy, emergency, radiation, laboratory and respiratory medicine, and occupational therapy. Other areas of health, medicine, dentistry, or veterinary may be included with instructor provided competencies**. Such teacher made competencies must remain at the aide level and not go beyond the scope of practice of unlicensed assistive personnel. Invasive procedures that fall into the nursing scope of practice are not to be added**. Clinical experience is defined as activities performed in the clinical setting under the supervision of the appropriate health professional. School certificates for this module must be for "Allied Health Assistant". Specific competencies should be listed on the back of the certificate.

32.0	Perform aide level skills representative of 1 to 3 major allied health areas in the school laboratory before beginning the clinical phase. -- The student will be able to:	
32.01	Perform skills related to the body systems.	
32.02	If unlicensed clinical laboratory type skills is one of the selected allied health areas to be taught, only procedures that are exempt from clinical laboratory personnel licensure requirements will be presented and students will:	
	32.02.01.1	Perform waived testing on blood and urine.
	32.02.01.2	Prepare blood slides for differential blood count.
	32.02.01.3	Plate microbiological specimen on appropriate media.

	32.02.01.4	Report urine specific gravity, color, and characteristics.
	32.02.01.5	Perform centrifuge operation and maintenance.
	32.02.01.6	Name (or identify) and explain the use of the common instruments/equipment found in the clinical laboratory.
	32.02.01.7	Demonstrate knowledge of specimen differentiation and procedure interference's.
	32.02.01.8	Perform communication skills specifically related to laboratory science.
	32.02.01.9	Using an artificial arm, perform venipunctures.
	32.02.01.10	Name and discuss the specialty areas within laboratory (hematology, clinical chemistry, microbiology, etc.).
	32.02.01.11	Explain the criteria set forth in CLIA to classify laboratory testing as waived, moderate complexity or high complexity.
	32.02.01.12	Explain the levels and qualifications for testing personnel as set forth in CLIA (complexity based) and as established by state law (licensure categories).
	32.02.01.13	Practice and demonstrate how to properly and safely use a microscope.
32.03	If unlicensed physical restorative type skills are to be taught, students will be able to:	
	32.03.01.1	Describe the functions of bones and muscles as related to the practice of physical therapy.
	32.03.01.2	Define disability and identify types of disabilities.
	32.03.01.3	Name and discuss the avenues of physical therapy practice.
	32.03.01.4	Describe equipment used in physical therapy.
	32.03.01.5	Teach crutch and walker use and care.
	32.03.01.6	Perform safe body mechanics and transfer techniques.
	32.03.01.7	Demonstrate an understanding of the use of modalities (i.e. ultrasound, heat and cold therapeutic massage, E-STEM, wound care, elastic stockings).
	32.03.01.8	Perform hydrotherapy.
	32.03.01.9	Perform communication skills specifically related to physical therapy.
	32.03.01.10	Assist clients to eat using prompting techniques.
	32.03.01.11	Identify, describe, and demonstrate the use of adaptive feeding devices.
	32.03.01.12	Identify augmented communication devices and describe the purpose of each.

32.03.01.13	Demonstrate techniques used in active and passive range of motion exercises.
32.03.01.14	Instruct patients in bed/wheelchair mobility activities.
32.03.01.15	Describe the relationship between long-term and short-term goals.
32.04	If unlicensed occupational restorative type skills are to be taught, students will be able to:
32.04.01.1	Describe equipment used in occupational therapy.
32.04.01.2	Make splints.
32.04.01.3	Perform feeding and dressing skills using adaptive equipment.
32.04.01.4	Perform feeding and dressing skills using one hand.
32.04.01.5	Perform communication skills specifically related to occupational therapy.
32.04.01.6	Perform and instruct range of motion exercises.
32.04.01.7	Name and discuss the avenues of physical therapy practice.
32.04.01.8	Train the client in clothing care skills.
32.04.01.9	Train the client in food preparation skills.
32.04.01.10	Train the client in money management skills.
32.05	If unlicensed respiratory restorative type skills are to be taught, students will be able to:
32.05.01.1	Name and discuss the avenues of Respiratory Care Practice.
32.05.01.2	Describe common respiratory diseases (asthma, emphysema, chronic bronchitis, atelectasis) and common medications used to treat respiratory diseases.
32.05.01.3	Recognize normal breath sounds when auscultating the chest with a stethoscope.
32.05.01.4	Assemble and practice using gas reducing and flow regulating equipment.
32.05.01.5	Demonstrate and discuss the use of incentive spirometers.
32.05.01.6	Differentiate between various oxygen-delivery devices (nasal cannulas, simple and rebreathing masks, oxyhoods, enclosures.
32.05.01.7	Stock shelves with, process, and perform preventative maintenance on respiratory care equipment.
32.05.01.8	Check emergency equipment assigned to respiratory care.

	32.05.01.9	Demonstrate/discuss the use of postural drainage and percussion.
	32.05.01.10	Discuss and practice the use of the pulse oximeter.
	32.05.01.11	Describe the equipment and use of humidity/aerosol.
32.06	If medical administrative assisting type skills is one of the selected allied health areas to be taught, students will:	
	32.06.01.1	Demonstrate an understanding of basic medical terminology e.g. prefixes, suffixes, and root words related to major body systems.
	32.06.01.2	Demonstrate an understanding of straight numerical, alphabetical and terminal digit filing.
	32.06.01.3	Demonstrate computer literacy, keyboarding and retrieval skills.
	32.06.01.4	List procedures for scheduling and referring patients, and handling walk-in emergency patients.
	32.06.01.5	Understand what is required to create and submit a medical bill.
	32.06.01.6	Define a Release of Medical Information, Explanation of Benefit, Assignment of Benefit and Electronic Remittance Advice
	32.06.01.7	Develop and understanding of the term HMO and be able to interpret the information contained on the patient's insurance card.
	32.06.01.8	Understand the financial terms and procedures involved in operating a medical office practice, including Income, Expense, Accounts Receivable, Accounts payable, Cash and Accrual Accounting, Write-off Adjustments.
	32.06.01.9	Demonstrate computer literacy, keyboarding, and retrieval skills.
32.07	If unlicensed radiologic type skills are to be taught, students will:	
	32.07.01.1	Identify the function of a cassette, film, and screen.
	32.07.01.2	Describe how radiation produces an image on film.
	32.07.01.3	Identify the process by which x-ray film is developed.
	32.07.01.4	Process a film through an automatic processor.
	32.07.01.5	Identify anatomical position and terminology related to position (supine, prone, proximal, distal, medial, lateral, superior, inferior, anterior/ventral, and posterior/dorsal).
	32.07.01.6	Identify patient properly (check identification band, etc.).
	32.07.01.7	Explain appropriate exam(s) to the patient.
	32.07.01.8	Perform safe body mechanics and transferring skills of patient onto x-ray table.

32.07.01.9	Position patient for exam(s) (chest, KUB, hand, and foot).
32.07.01.10	Position x-ray tube to simulate exposure for exam(s) (chest, KUB, hand, and foot).
32.07.01.11	Position patient in supine, prone, lateral, oblique, AP, PA of appropriate part.
32.07.01.12	Use an artificial arm to perform venipuncture.
32.08 If unlicensed electrocardiograph aide type skills are to be taught, students will:	
32.08.01.1	Describe the cardiovascular system.
32.08.01.2	Demonstrate knowledge of, apply and use medical instrumentation modalities.
32.08.01.3	Demonstrate knowledge of the use of electrocardiographic equipment on patients who have special needs and considerations.
32.08.01.4	Perform patient care techniques in the health care facility.
32.08.01.5	Demonstrate knowledge of telemetry application,
32.08.01.6	Assist with the patient care of patients undergoing ambulatory monitoring and stress testing.
32.08.01.7	Demonstrate knowledge of patient care of patients with pacemakers and implanted defibrillators.
32.09 If unlicensed phlebotomy aide type skills are to be taught, students will:	
32.09.01.1	Demonstrate accepted professional communication and interpersonal skills of a phlebotomist.
32.09.01.2	Discuss phlebotomy in relation to the health care setting.
32.09.01.3	Identify the anatomic structure and function of body systems in relation to services performed by phlebotomist.
32.09.01.4	Recognize and identify collection reagents, supplies, equipment and interfering chemical substances.
32.09.01.5	Demonstrate skills and knowledge necessary to perform phlebotomy.
32.09.01.6	Practice accepted procedures of transporting, accessioning and processing specimens.
32.09.01.7	Practice quality assurance and safety.
32.10 If unlicensed geriatric type skills are to be taught, (for students completing nurse assisting only) students will:	
32.10.01.1	Recognize types of long term care facilities and levels of care.
32.10.01.2	Be familiar with legislation affecting long term care.

	32.10.01.3	Discuss physical and emotional effects of aging and appropriate ways of dealing with them.
	32.10.01.4	Recognize the stages of dementia and the care of residents in each stage.
	32.10.01.5	Discuss reality orientation, reminiscing, and validation therapy.
	32.10.01.6	Describe the effects of aging on nutritional needs.
	32.10.01.7	Provide for the safety of the elderly and chronically ill patient, including prevention of falls, prevention of infections, provision of a safe environment and prompt attendance to patients' needs.
	32.10.01.8	Check integrity of patient's skin condition and take appropriate actions when needed.
	32.10.01.9	Recognize common chronic illnesses and the special care required.
	32.10.01.10	Provide appropriate end of life care.
	32.10.01.11	Describe common medications taken by the elderly and chronically ill, their effects, and side effects.
32.11	If electrocardiograph monitor technician is to be taught, students will:	
	32.11.01.1	Describe the cardiovascular system.
	32.11.01.2	Identify legal and ethical responsibilities of an EKG/ECG monitor tech.
	32.11.01.3	Demonstrate knowledge of, apply and use medical instrumentation modalities.
	32.11.01.4	Recognize normal and abnormal monitoring.
33.0	Successfully complete a clinical rotation in 1-3 major allied health areas. -- The student will be able to:	
33.01	Demonstrate skills in the clinical setting as outlined in 32.0.	
33.02	Complete clinical rotations under the supervision of a duly licensed/certified allied health care or nursing professional.	
33.03	Exhibit behavior consistent with the professional ethics required of each of the allied health areas being studied.	

Course Number: MEA0580
Occupational Completion Point: F
Advanced Allied Health Assistant – 100 Hours – SOC Code 31-9099

Students enrolled in this module have completed the Patient Care Assistant and Allied Health Assistant competencies and/or are adding these skills to be a more multi-skilled worker. Students will perform skills representative of one to three areas of allied health care in the laboratory and clinical settings. Major areas of allied health are defined as physical therapy, emergency, radiation, laboratory and respiratory medicine, and occupational therapy. Other areas of health, medicine, dentistry, or veterinary may be included with instructor provided competencies**. Such teacher made competencies must remain at the aide level and not go beyond the scope of practice of unlicensed assistive personnel.**

Invasive procedures that fall into the nursing scope of practice are not to be added. Clinical experience is defined as activities performed in the clinical setting under the supervision of the appropriate health professional. School certificates for this module must be for "Advanced Allied Health Assistant". Specific competencies should be listed on the back of the certificate.	
34.0	Perform additional skills from the previous module which are in the aide level and do not go beyond the scope of practice of unlicensed assistive personnel.
35.0	Successfully complete a clinical rotation in the selected major allied health area. -- The student will be able to:
35.01	Demonstrate skills in the clinical setting as outlined in 32.0.
35.02	Complete clinical rotations under the supervision of a duly licensed/certified allied health care or nursing professional.
35.03	Exhibit behavior consistent with the professional ethics required of each of the allied health areas being studied.

Course Number: PRN0094 **Occupational Completion Point: G** **Patient Care Technician – 60 Hours – SOC 31-9099**	
Students enrolled in this module MUST have completed ALL modules in this program. Upon completion they will be prepared as the cross trained unlicensed worker known as the Patient Care Technician (Industry Title).	
36.0	Demonstrate knowledge of organizational and effective team member skills. -- The student will be able to:
36.01	Define terms associated with organizational and time management skills.
36.02	Discuss the role of unlicensed assistive personnel (UAP's) in relation to the terms in 36.01.
36.03	Discuss various situations when a Patient Care Technician would utilize organizational skills.
36.04	List the characteristics of an effective team member.
36.05	Discuss the chain of command and characteristics of team member relationships.
36.06	Perform a self-evaluation.
37.0	Practice organizational and effective team member skills in a clinical setting. -- The student will be able to:
37.01	Demonstrate ways to deal with conflict.
37.02	Demonstrate employability skills specific to patient care technician.
37.03	Demonstrate communication skills that are supportive of team members.
37.04	Demonstrate effective time management skills.
37.05	Give and receive end-of-shift reports to team members.

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

This program also meets the requirements of Home Health Aide as stated in Rules of the Department of Health and Rehabilitative services, Division of Health, Chapter 10D-68 - Minimum Standards for Home Health Agencies.

Please refer to 42CFR§484.36 for the clinical and faculty requirements for the Home Health Aide course.

This program meets the Department of Health's education requirements for HIV/AIDS, Domestic Violence and Prevention of Medical Errors. Although not a requirement for initial licensure, it is a requirement for renewal, therefore the instructor may provide a certificate for renewal purposes to the student verifying these requirements have been met.

If students in this program are seeking a licensure, certificate or registration through the Department of Health, please refer to 456.0635 F.S. for more information on disqualification for a license, certificate, or registration through the Department of Health.

Students who have completed the Health Science Core may articulate to this program. For teacher certification requirements for the remaining modules please check the certification diagram and/or the individual module.

A voluntary Certified Patient Care Technician (CPCT) national Examination is available through the National Healthcare Association:

7500 West 160th Street
Stilwell, Kansas 66085
Phone: 973-605-1881
Toll Free: (800) 499-9092
FAX: (913) 661-6291

Completion of this program should enable the postsecondary student to be given advanced standing in the Practical Nursing program H170607.

Outcomes 01-11 are referred to as the Health Science Core and do not have to be completed if the student has previously completed the core in another program at any level. However, outcomes 01-11 must be completed before the additional modules in this program. The Core should be

taken first or concurrently with the first course in the program. Following the successful completion of the core, the student is eligible to take the National Health Care Foundation Skill Standards Assessment with instructor approval and the completion of a portfolio.

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)

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.

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.

Basic Skills

In a Career Certificate Program offered for 450 hours or more, in accordance with Rule 6A-10.040, F.A.C., the minimum basic skills grade levels required for postsecondary adult career and technical students to complete this program are: Mathematics 10, Language 10, and Reading 10. These grade level numbers correspond to a grade equivalent score obtained on a state designated basic skills examination.

Adult students with disabilities, as defined in Section 1004.02(7), Florida Statutes, may be exempted from meeting the Basic Skills requirements (Rule 6A-10.040). Students served in exceptional student education (except gifted) as defined in s. 1003.01(3) (a), F.S., may also be exempted from meeting the Basic Skills requirement. Each school district and Florida College must adopt a policy addressing procedures for exempting eligible students with disabilities from the Basic Skills requirement as permitted in Section 1004.91(3), F.S.

Students who possess a college degree at the Associate of Applied Science level or higher; who have completed or are exempt from the college entry-level examination; or who have passed a state, national, or industry licensure exam are exempt from meeting the Basic Skills requirement (Rule 6A-10.040, F.A.C.) Exemptions from state, national or industry licensure are limited to the certifications listed on the Basic Skills and Licensure Exemption List which may be accessed from the CTE Program Resources page.

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: **Optometric Assisting**
Program Type: **Career Preparatory**
Career Cluster: **Health Science**

Career Certificate Program	
Program Number	H170705
CIP Number	0351180203
Grade Level	30, 31
Standard Length	1080 hours
Teacher Certification	Refer to the **Program Structure** section.
CTSO	HOSA: Future Health Professionals
SOC Codes (all applicable)	29-2081 Opticians, Dispensing 31-9099 Healthcare Support Workers, All Other
Basic Skills Level	Mathematics: 9 Language: 11 Reading: 11

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 Health Science 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 Health Science career cluster.

The purpose of this program is to prepare students for employment as optometric assistants or SOC 29-2081 Opticians, Dispensing.

The content includes but is not limited to basic instruction in anatomy and physiology, CPR, Heartsaver, office practices and dispensing of visual devices. Because optometrists now deal with certain drugs, students need knowledge of diagnostic and therapeutic drugs under supervision.

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 2 occupational completion points.

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 post-secondary program structure:

OCP	Course Number	Course Title	Teacher Certification	Length	SOC Code
A	OPT0720	Foundations of Vision Care	TEC OPTICS 7G OPTOM ASST 7 G	102 hours	31-9099
	OPT0721	Optometric Assistant 1		336 hours	29-2081
B	OPT0722	Optometric Assistant 2		642 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 knowledge of the healthcare delivery system.
02.0 Demonstrate legal and ethical responsibilities.
03.0 Demonstrate the ability to communicate and use interpersonal skills effectively.
04.0 Demonstrate an understanding of health and vision concepts.
05.0 Demonstrate understanding of a prescription.
06.0 Recognize and practice workplace safety and security procedures.
07.0 Recognize and practice infection control procedures.
08.0 Recognize and respond to emergency situations.
09.0 Apply basic math and science skills.
10.0 Demonstrate an understanding of information technology applications in the vision care office.
11.0 Demonstrate employability skills.
12.0 Demonstrate knowledge of business management techniques.
13.0 Perform delivery of optical devices.
14.0 Demonstrate knowledge of basic ocular anatomy and physiology.
15.0 Report and record patient information.
16.0 Perform and assist in procedures used in visual testing.
17.0 Perform special procedures.
18.0 Demonstrate knowledge of contact lenses.

Florida Department of Education
Student Performance Standards

Program Title: Optometric Assisting
Career Certificate Program Number: H170705

Course Number: OPT0720 **Occupational Completion Point: A** **Foundations of Vision Care – 102 Hours – SOC Code 31-9099**	
01.0	Demonstrate knowledge of the healthcare delivery system. – The student will be able to:
01.01	Recognize social conditions that affect healthcare delivery.
01.02	Recognize victims of various types of abuse and neglect including domestic violence.
01.03	Identify resources to assist victims of abuse and neglect including domestic violence.
02.0	Demonstrate legal and ethical responsibilities. – The student will be able to:
02.01	Differentiate between laws and a code of ethics.
02.02	Describe the composition and scope of practice of the vision care team including OD, MD, COA, LDO, and scribe.
02.03	Discuss the American Optometric Association (AOA) Paraoptometric Code of Ethics.
02.04	Demonstrate knowledge of both doctors' and patients' rights and responsibilities.
02.05	Demonstrate procedures for accurate documentation and record keeping.
02.06	Identify standards of the Health Insurance Portability and Accountability Act (HIPAA).
02.07	Demonstrate the procedure for properly identifying patients.
02.08	Describe informed consent including implied, verbal, written and need for capacity.
02.09	Explain practices that could result in malpractice, liability, negligence, abandonment, false imprisonment, and fraud.
03.0	Demonstrate the ability to communicate and use interpersonal skills effectively. – The student will be able to:
03.01	Identify characteristics of successful and unsuccessful communication including communication styles and barriers.
03.02	Demonstrate basic speaking, active listening skills, and non-verbal skills.

	03.03	Compose written communication using correct spelling, grammar, and formatting.
	03.04	Recognize the importance of courtesy and respect for patients and other healthcare workers including diverse age, cultural, economic, ethnic, and religious groups.
04.0	Demonstrate an understanding of health and vision concepts. – The student will be able to:	
	04.01	Identify the major body systems.
	04.02	Identify the medical conditions that affect eye health.
	04.03	Discuss the adverse effects of alcohol, tobacco, and drug use (legal and illegal) as related to eye health
	04.04	Discuss the adverse effects of poor nutrition and diet as related to eye health.
	04.05	Identify the difference between a vision screening and a comprehensive eye exam.
	04.06	Recognize the importance of a comprehensive eye exam.
	04.07	Demonstrate introductory knowledge of the anatomy and physiology of the eye and the vision system.
	04.08	Recognize the difference between a chief complaint and a HPI (History of Present Illness).
	04.09	Identify signs and symptoms that may be sight-threatening to patients.
	04.10	Identify psychological reactions to vision loss including defense mechanisms and grief.
	04.11	Demonstrate knowledge of prefixes, suffixes, and root words in medical and vision terminology.
05.0	Demonstrate understanding of a prescription. - The student will be able to :	
	05.01	Demonstrate knowledge of introduction to refractive error.
	05.02	Identify the reasons contact lenses and eyewear are prescribed and worn.
	05.03	Identify legal requirements of a prescription.
06.0	Recognize and practice workplace safety and security procedures. – The student will be able to:	
	06.01	Utilize Occupational Safety and Health Administration (OSHA) safety procedures to identify safe and unsafe working conditions.
	06.02	Demonstrate the safe use and security of medical equipment and supplies.
	06.03	Identify and describe methods in medical error reduction and prevention in the various healthcare settings.
	06.04	Demonstrate proper body mechanics to prevent personal injury.

	06.05 Demonstrate fire, safety, disaster and evacuations procedures.
07.0	Recognize and practice infection control procedures. – The student will be able to:
	07.01 Define principles of infection control including standard and transmission-based precautions.
	07.02 Demonstrate knowledge of medical asepsis and practice procedures such as hand-washing to break the chain of infection.
	07.03 Describe how to dispose correctly of biohazardous materials according to appropriate government guidelines such as OSHA.
	07.04 Demonstrate knowledge of blood borne diseases, including HIV/AIDS.
08.0	Recognize and respond to emergency situations. – The student will be able to:
	08.01 Record vital signs.
	08.02 Describe the legal parameters of the “Good Samaritan” law.
	08.03 Obtain and maintain training or certification on cardiopulmonary resuscitation (CPR), automated external defibrillator (AED), and foreign body airway obstruction (FBAO).
09.0	Apply basic math and science skills. – The student will be able to:
	09.01 Interpret data using graphs, charts, and tables.
	09.02 Make, use and convert using both traditional and metric units.
	09.03 Demonstrate basic math skills including addition, subtraction, multiplication, division, percentages, and basic algebraic skills.
10.0	Demonstrate an understanding of information technology applications in the vision care office. – The student will be able to:
	10.01 Describe electronic medical technology applications in vision care and how it can be used in vison care.
	10.02 Demonstrate basic computer skills.
	10.03 Type 25 words per minute.
	10.04 Identify methods of secure communication.
	10.05 Perform administrative office skills including faxing and copying.
11.0	Demonstrate employability skills. – The student will be able to:
	11.01 Identify personal traits or attitudes desirable in a member of the healthcare team.
	11.02 Identify appropriate professional standards of healthcare workers.

11.03	Identify characteristics of effective teams and leaders
11.04	Recognize factors and situations that may lead to conflict, and methods for solutions
11.05	Discuss laws governing harassment, labor, and employment
11.06	Identify documents that may be required when applying for a job.
11.07	Write an appropriate resume and cover letter.
11.08	Conduct a job search.
11.09	Complete a job application form correctly.
11.10	Examine possible certifications or licensing in the vision career field for career advancement.

Course Number: OPT0721 Occupational Completion Point: B Optometric Assistant 1 –336 Hours – SOC Code 29-2081	
12.0	Demonstrate knowledge of business management techniques. -- The student will be able to:
12.01	Schedule patients using knowledge of triage.
12.02	Maintain and file patient records.
12.03	Identify common methods of payment for vision and healthcare services.
12.04	Demonstrate knowledge of different kinds of vision and health insurance.
12.05	Demonstrate knowledge of common insurance terminology.
12.06	Obtain insurance authorization online and by telephone.
12.07	Demonstrate an understanding of the procedures to complete and file both electronic and paper third party claims.
12.08	Demonstrate the knowledge of how CPT, ICD, and HCPCS codes are utilized.
12.09	Demonstrate an understanding of billing and collection procedures for current and overdue accounts.
12.10	Practice office supply control.
13.0	Perform delivery of optical devices. -- The student will be able to:
13.01	Demonstrate knowledge of lens physics including:

13.01.1	Optical center
13.01.2	Refraction
13.01.3	Reflection
13.01.4	Dispersion
13.01.5	Index of refraction
13.01.6	Abbe value
13.01.7	Specific gravity
13.01.8	Prism

13.02 Demonstrate knowledge of characteristics of convex and concave lenses.

13.03 Demonstrate knowledge of various lens designs, materials, and options.

13.04 Demonstrate basic knowledge of how lenses are made.

13.05 Neutralize the different types of lenses.

13.06 Perform optical math to interpret prescriptions including:

13.06.1	Transposition
13.06.2	True reading power
13.06.3	Intermediate power
13.06.4	Spherical equivalent
13.06.5	Optical cross
13.06.6	Focal length
13.06.7	Combining and splitting prism

13.07 Demonstrate knowledge of frame material and style selections.

13.08 Demonstrate knowledge of needs-based frame and lenses recommendations.

13.09 Assist patients with frame and lens selection.

13.10 Take patient measurements.

13.11 Demonstrate knowledge of the methods used to order spectacle lenses and frames.

13.12 Adjust and repair spectacles.

13.13 Verify lenses according to ANSI standards.

13.14 Dispense spectacles under the proper supervision and within the optometric assistant scope of practice.

Course Number: OPT0722 **Occupational Completion Point: B** **Optometric Assistant 2 – 642 Hours – SOC Code 29-2081**	
14.0	Demonstrate knowledge of basic ocular anatomy and physiology. -- The student will be able to:
	14.01 Demonstrate knowledge of ocular anatomy.
	14.02 Demonstrate knowledge of ocular physiology.
	14.03 Demonstrate knowledge of pathological and functional disorders of the eye.
	14.04 Demonstrate the knowledge of injuries of the eye and recognize sight-threatening emergencies.
	14.05 Correlate general health as it relates to ocular health.
15.0	Report and record patient information. -- The student will be able to:
	15.01 Properly identify patients.
	15.02 Take and record patient histories.
	15.03 Use appropriate medical and vision care terminology and abbreviations.
	15.04 Receive and give oral report of patient's visual status.
	15.05 Obtain specified data from patient, family and/or caregiver regarding visual status.
	15.06 Communicate knowledge to patient, family and/or caregiver to assist with the plan of care.
16.0	Perform and assist in procedures used in visual testing. -- The student will be able to:
	16.01 Perform vision screening.
	16.02 Measure and record visual acuity.
	16.03 Demonstrate knowledge of amplitude of accommodation.
	16.04 Measure and record color vision.
	16.05 Measure and record stereo acuity.
	16.06 Measure and record pupil evaluation.
	16.07 Evaluate Ocular motility including: 16.07.1 Extra Ocular Motility 16.07.2 Convergence

	16.07.3 Cover testing 16.07.4 Worth 4 dot
	16.08 Perform eye drop instillation.
	16.09 Describe components of instrumentation used in comprehensive vision evaluation.
	16.10 Demonstrate basic equipment maintenance.
17.0	Perform special procedures. -- The student will be able to:
	17.01 Measure and record keratometry.
	17.02 Demonstrate knowledge of various forms of retinal imaging.
	17.03 Measure and record a visual field.
	17.04 Demonstrate knowledge of slit lamp biomicroscope procedures.
	17.05 Demonstrate knowledge of techniques to evaluate tear film.
	17.06 Measure and record intraocular pressure.
	17.07 Demonstrate knowledge of refraction techniques and refractive errors.
	17.08 Demonstrate knowledge of low vision.
	17.09 Demonstrate knowledge of vision therapy.
	17.10 Demonstrate knowledge of diagnostic and therapeutic drugs including knowledge of the color coding system for topical ocular medications.
18.0	Demonstrate knowledge of contact lenses. -- The student will be able to:
	18.01 Assist patients with contact lens procedures including: 18.01.1 Insertion and removal 18.01.2 Cleaning and care 18.01.3 Compliance of soft and RGP lenses
	18.02 Demonstrate knowledge of the fitting process for both rigid and soft contact lenses.
	18.03 Demonstrate knowledge of the ordering for both rigid and soft contact lenses.
	18.04 Demonstrate knowledge of the advantages and disadvantages of various contact lens materials and designs.
	18.05 Use selected instruments to verify contact lenses.

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

This program meets the Department of Health's education requirements for HIV/AIDS, Domestic Violence and Prevention of Medical Errors. Although not a requirement for initial licensure, it is a requirement for renewal, therefore the instructor may provide a certificate for renewal purposes to the student verifying these requirements have been met.

If students in this program are seeking a licensure, certificate or registration through the Department of Health, please refer to 456.0635 F.S. for more information on disqualification for a license, certificate, or registration through the Department of Health.

Students are prepared to assist in performing tests to determine defects in vision, preparing and fitting eyeglasses and contact lenses, and administering corrective eye exercises and other treatments under the supervision of a person licensed under FL Statutes 458, 459, 463 or 484.

This program focuses on broad, transferable skills and stresses understanding and demonstration of the following elements of the health care industry; planning, management, finance, technical and production skills, underlying principles of technology, labor issues, community issues and health, safety, and environmental issues.

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)

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.

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.

Basic Skills

In a Career Certificate Program offered for 450 hours or more, in accordance with Rule 6A-10.040, F.A.C., the minimum basic skills grade levels required for postsecondary adult career and technical students to complete this program are: Mathematics 9, Language 11, and Reading 11. These grade level numbers correspond to a grade equivalent score obtained on a state designated basic skills examination.

Adult students with disabilities, as defined in Section 1004.02(7), Florida Statutes, may be exempted from meeting the Basic Skills requirements (Rule 6A-10.040). Students served in exceptional student education (except gifted) as defined in s. 1003.01(3) (a), F.S., may also be exempted from meeting the Basic Skills requirement. Each school district and Florida College must adopt a policy addressing procedures for exempting eligible students with disabilities from the Basic Skills requirement as permitted in Section 1004.91(3), F.S.

Students who possess a college degree at the Associate of Applied Science level or higher; who have completed or are exempt from the college entry-level examination; or who have passed a state, national, or industry licensure exam are exempt from meeting the Basic Skills requirement (Rule 6A-10.040, F.A.C.) Exemptions from state, national or industry licensure are limited to the certifications listed on the Basic Skills and Licensure Exemption List which may be accessed from the CTE Program Resources page.

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: **Orthopedic Technology**
Program Type: **Career Preparatory**
Career Cluster: **Health Science**

Career Certificate Program	
Program Number	H170800
CIP Number	0351080605
Grade Level	30, 31
Standard Length	800 hours
Teacher Certification	Refer to the **Program Structure** section.
CTSO	HOSA: Future Health Professionals
SOC Codes (all applicable)	31-9099 Healthcare Support Workers, All Other 29-2099 Health Technologists and Technicians, All Other
Basic Skills Level	Mathematics: 10 Language: 10 Reading: 10

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 Health Science 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 Health Science 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 2 occupational completion points.

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	HSC0003	Basic Healthcare Worker	Ortho Tech 7 G REG NUR Ortho 7 G	90 hours	31-9099
B	PHT0090	Orthopedic Technologist 1		355 hours	29-2099
	PHT0091	Orthopedic Technologist 2		355 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 knowledge of the health care delivery system and health occupations.
02.0 Demonstrate the ability to communicate and use interpersonal skills effectively.
03.0 Demonstrate legal and ethical responsibilities.
04.0 Demonstrate an understanding of and apply wellness and disease concepts.
05.0 Recognize and practice safety and security procedures.
06.0 Recognize and respond to emergency situations.
07.0 Recognize and practice infection control procedures.
08.0 Demonstrate an understanding of information technology applications in healthcare.
09.0 Demonstrate employability skills.
10.0 Demonstrate knowledge of blood borne diseases, including HIV/AIDS.
11.0 Apply basic math and science skills.
12.0 Describe anatomical structure and function of the human body related to the practice of orthopedics.
13.0 Discuss diseases and injuries of the musculoskeletal system and related structures.
14.0 Demonstrate physical assessment of the orthopedic patient.
15.0 Perform routine maintenance of equipment.
16.0 Disinfect and sterilize materials and equipment.
17.0 Demonstrate knowledge of the use of radiology in orthopedic technology.
18.0 Demonstrate ability to apply, adjust, and remove all common orthopedic devices.
19.0 Assist the orthopedic physician with various treatments and procedures.
20.0 Assist the orthopedic surgeon in the operating room using aseptic technique.
21.0 Demonstrate use of exercise, assistive/supportive devices and specialized equipment.
22.0 Instruct other healthcare providers, patients and families to perform selected treatment procedures and functional activities.
23.0 Identify architectural barriers.

Florida Department of Education
Student Performance Standards

Program Title: Orthopedic Technology
Career Certificate Program Number: H170800

The **Basic Health Care Worker (HSC0003)** is referred to as the **Health Science Core** and is the first OCP in the majority of the Career Certificate Program health science programs. Secondary and Postsecondary students completing the health science core will not have to repeat the core in any other health science program in which it is a part. When the recommended sequence is followed, the structure allows students to complete at specified points for employment or remain for advanced training or cross-training.

Career Certificate Program Course Number: HSC0003
Occupational Completion Point: A
Basic Healthcare Worker – 90 Hours – SOC Code 31-9099

To ensure consistency whenever these courses are offered, the health science core standards (1-11) have been placed in a separate document.

Course Number: PHT0090
Occupational Completion Point: B
Orthopedic Technologist 1 – 355 Hours – SOC Code 21-9099

12.0	Describe anatomical structure and function of the human body related to the practice of orthopedics. – The student will be able to:
12.01	Describe the composition, properties and functions of connective tissue.
12.02	Discuss the generalized functions of the skeletal system.
12.03	Identify the major anatomical structures found in a typical long bone.
12.04	Discuss the microscopic structure of bones and cartilage.
12.05	Explain how bones are formed, grow and remodeled.
12.06	Identify the two major subdivisions of the skeleton and list the bones found in each area.
12.07	List and compare the major types of joints in the body.
12.08	Identify and discuss the structure and function of the three major types of muscle tissue.
12.09	Discuss the microscopic structure of a skeletal muscle.
12.10	Explain muscle stimulation, movement and contraction.

	12.11 Identify the major muscles of the body and their primary function.
	12.12 Discuss the most common types of movement produced by skeletal muscles.
	12.13 Describe the role of tendons and ligaments in the musculoskeletal system.
13.0	Discuss diseases and injuries of the musculoskeletal system. – The student will be able to:
	13.01 Explain the body's general response to injury.
	13.02 Discuss the process of tissue healing.
	13.03 Describe the pathophysiology of connective tissue diseases and degenerative joint disorders.
	13.04 Discuss the assessment and treatment of patients with connective tissue diseases and joint disorders.
	13.05 Identify the various types of joint replacement.
	13.06 Discuss the role of the orthopedic technician in pre and post-operative care and therapy of joint replacement patients.
	13.07 Discuss the common types of strains and sprains and treatment procedures.
	13.08 Classify the different types of bone fractures.
	13.09 Describe the physiological stages that occur in bone healing.
	13.10 Discuss the major complications of fractures, their signs and symptoms and management.
	13.11 Compare the types of medical treatment for fractures including reduction and fixation.
	13.12 Describe common therapeutic measures for fractures including casts, splints, immobilizers, traction, crutches, walkers, and canes.
	13.13 Describe specific types of fractures regarding their location in the body.
14.0	Demonstrate physical assessment of the orthopedic patient. – The student will be able to:
	14.01 Interview patient and family in order to obtain a complete history of the patient's complaints/conditions by using effective interviewing techniques.
	14.02 Conduct physical examination of the patient in order to provide pertinent information to the physician by using standard examination techniques.
	14.03 Identify critical elements to include with documentation of physical assessment of the patient.
	14.04 Use correct medical terminology and proper techniques to document orthopedic conditions or complications on the patient's chart.
15.0	Perform routine maintenance of equipment. – The student will be able to:

	15.01 Assemble, inspect, adjust and disassemble orthopedic equipment such as, frames, weights, cables, pulleys, and other support devices as needed.
	15.02 Clean, organize, and maintain adequate levels of orthopedic equipment for use.
	15.03 Complete repair order forms for broken equipment.
16.0	Disinfect and sterilize materials and equipment. – The student will be able to:
	16.01 Discuss the principles of infection control, aseptic technique, and sterilization.
	16.02 Disinfect used equipment and materials using proper antiseptics and disinfectants.
	16.03 Prepare materials and equipment for sterilization.
17.0	Demonstrate knowledge of the use of radiology in orthopedic technology. – The student will be able to:
	17.01 Discuss the history of radiology and its application in orthopedics.
	17.02 Explain the basics of radiographic image production and the various types of permanent imaging relating to orthopedics.
	17.03 Demonstrate the ability to interpret simple fractures and dislocations on radiographic film.
	17.04 Discuss the role of the orthopedic technologist in obtaining and examining radiographs.

Course Number: PHT0091 **Occupational Completion Point: B** **Orthopedic Technologist 2 – 355 Hours – SOC Code 21-9099**	
18.0	Demonstrate ability to apply, adjust, and remove all common orthopedic devices in order to comply with physician's orders. – The student will be able to:
	18.01 Discuss the different types of materials and their properties used in constructing casts, splints and immobilizers.
	18.02 Identify the various types of upper and lower extremity casts/splints applicable to specific orthopedic conditions requiring treatment.
	18.03 Apply upper extremity cast/splint to patient using accepted casting/splinting practices and techniques.
	18.04 Apply lower extremity cast/splint to patient using accepted casting/splinting practices.
	18.05 Discuss the specific orthopedic conditions associated with torso casts/splints and specialty casts/splints.
	18.06 Apply torso cast/splint to patient using accepted casting/splinting practices and techniques.
	18.07 Apply specialty cast/splint to patient using accepted casting/splinting practices and techniques.

	18.08 Describe the complications associated with casting/splinting.
	18.09 Utilize cast/splint removal equipment to remove casts/splints using accepted practices and techniques.
	18.10 Utilize cast/splint removal equipment to perform specific procedures, using wedging, windowing, and uni/bivalving techniques.
	18.11 Apply orthopedic devices to patient by ensuring proper fit and placement.
	18.12 Apply pre-fabricated orthotics and orthopedic appliances to patient by ensuring proper fit.
19.0	Assist the orthopedic physician with various treatments and procedures. – The student will be able to:
	19.01 Obtain equipment in order to apply traction therapy to patient by selecting appropriate items for the traction apparatus.
	19.02 Demonstrate ability to construct the specific type of traction ordered.
	19.03 Apply traction apparatus to bed in order to prepare for application of skin or skeletal traction by using accepted practices and techniques.
	19.04 Drape, scrub, and assist in the application of skeletal traction therapy using accepted aseptic practices and techniques.
	19.05 Apply skin traction therapy to patient using accepted aseptic practices and techniques.
	19.06 Discuss the various types of traction applicable to specific orthopedic conditions requiring traction.
	19.07 Explain the basic biomechanics of traction therapy.
	19.08 Describe the contraindications associated with traction therapy.
	19.09 Assist in discontinuing traction therapy using accepted practices and techniques.
20.0	Assist the orthopedic surgeon in the operating room using aseptic technique. – The student will be able to:
	20.01 Position, prep, and drape patient in order to prepare patient for surgery.
	20.02 Assist the surgeon by using accepted surgical practices and techniques.
	20.03 Assist the surgeon during reductions by supplying and applying the appropriate materials.
	20.04 Apply and manage post-operative dressing on wounds following aseptic practices and techniques.
21.0	Demonstrate use of exercise, assistive/supportive devices and specialized equipment. – The student will be able to:
	21.01 Describe the benefits of exercise, stretching, conditioning and strength training in rehabilitative therapy.
	21.02 Recognize and assist in exercising techniques used in orthopedic therapy.

	21.03 Discuss, demonstrate and teach the proper use of canes, crutches and walkers.
	21.04 Describe and demonstrate the various types of wheelchairs and their use.
	21.05 Perform safe body mechanics and patient transfer techniques.
	21.06 Define orthotics and state the importance of proper fit.
	21.07 Discuss upper and lower extremity prosthetics in terms of types of amputations and prosthetics available.
	21.08 Identify and find solutions for common problems associated with prosthetic management.
	21.09 Assist and instruct patients in the use of orthotic/prosthetic devices.
22.0	Instruct other healthcare providers, patients and families to perform selected treatment procedures and functional activities. – The student will be able to:
	22.01 Explain specific treatment plans for patients to all parties involved.
	22.02 Describe desired outcomes of selected treatment procedures or functional activities.
	22.03 Detail the types and functions of equipment being used in treatment of patients and their application.
	22.04 Discuss safety issues and proper procedural methods concerning use of orthopedic equipment and treatment protocol.
23.0	Identify architectural barriers. – The student will be able to:
	23.01 Identify environmental factors that are potential architectural barriers.
	23.02 Determine which aspects of the patient's functional level and their ambulatory/mobility equipment are subject to architectural problems.
	23.03 Describe action required to remediate barriers.

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

Outcomes 01-11 are referred to as the Health Science Core and do not have to be completed if the student has previously completed the Core in another health occupations program at any level. The Core should be taken first or concurrently with the first course in the program. Following the successful completion of the core, the student is eligible to take the National Health Care Foundation Skill Standards Assessment with instructor approval and the completion of a portfolio.

The graduate is prepared to make application for certification as an Orthopaedic Technologist (OTC) by examination to the National Board for Certification of Orthopaedic Technologists (NBCOT).

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)

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.

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.

Basic Skills

In a Career Certificate Program offered for 450 hours or more, in accordance with Rule 6A-10.040, F.A.C., the minimum basic skills grade levels required for postsecondary adult career and technical students to complete this program are: Mathematics 10, Language 10, and Reading 10. These grade level numbers correspond to a grade equivalent score obtained on a state designated basic skills examination.

Adult students with disabilities, as defined in Section 1004.02(7), Florida Statutes, may be exempted from meeting the Basic Skills requirements (Rule 6A-10.040). Students served in exceptional student education (except gifted) as defined in s. 1003.01(3) (a), F.S., may also be exempted from meeting the Basic Skills requirement. Each school district and Florida College must adopt a policy addressing procedures for exempting eligible students with disabilities from the Basic Skills requirement as permitted in Section 1004.91(3), F.S.

Students who possess a college degree at the Associate of Applied Science level or higher; who have completed or are exempt from the college entry-level examination; or who have passed a state, national, or industry licensure exam are exempt from meeting the Basic Skills requirement (Rule 6A-10.040, F.A.C.) Exemptions from state, national or industry licensure are limited to the certifications listed on the Basic Skills and Licensure Exemption List which may be accessed from the CTE Program Resources page.

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: **Emergency Medical Responder**
Program Type: **Career Preparatory**
Career Cluster: **Health Science**

Career Certificate Program	
Program Number	H171500
CIP Number	0351081000
Grade Level	30, 31
Standard Length	190 hours
Teacher Certification	Refer to the **Program Structure** section.
CTSO	HOSA: Future Health Professionals
SOC Codes (all applicable)	31-9099 Healthcare Support Workers, All Other 53-3011 Ambulance Drivers and Attendants, Except Emergency Medical Technicians
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 the Health Science 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 Health Science career cluster.

The content includes but is not limited to planning, management, finance, technical and production skills, underlying principles of technology, labor issues, community issues and health, safety, and environmental issues. Clinical learning experiences are an integral part of this program.

This is an instructional program that prepares individuals to provide initial care to sick or injured persons or as ambulance drivers and attendants SOC 53-3011. An Emergency Medical Responder may use this training for employment. The Emergency Medical Responder is the first to arrive at the scene of an injury but does not have the primary responsibility for treating and transporting the injured person(s). Emergency Medical Responders may include law enforcement, life guard, fire services or basic life support non-licensed personnel who act as part of an organized emergency medical services team.

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 2 occupational completion points.

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	HSC0003	Basic Healthcare Worker	REG NURSE 7 G	90 hours	31-9099
B	EMS0050	Emergency Medical Responder	PARAMEDIC @7 7G MED PROF 7 G EMT 7G	100 hours	53-3011

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 of the healthcare delivery system and health occupations.
02.0 Demonstrate the ability to communicate and use interpersonal skills effectively.
03.0 Demonstrate legal and ethical responsibilities.
04.0 Demonstrate an understanding of and apply wellness and disease concepts.
05.0 Recognize and practice safety and security procedures.
06.0 Recognize and respond to emergency situations.
07.0 Recognize and practice infection control procedures.
08.0 Demonstrate an understanding of information technology applications in healthcare.
09.0 Demonstrate employability skills.
10.0 Demonstrate knowledge of blood borne diseases, including HIV/AIDS.
11.0 Apply basic math and science skills.
12.0 Demonstrate an understanding of the roles and responsibilities of the Emergency Medical Responder.
13.0 Demonstrate an ability to communicate effectively as part of the EMS team.
14.0 Demonstrate an understanding of medicolegal aspects.
15.0 Determine and record vital signs of a sick or injured person.
16.0 Use medical identification devices.
17.0 Conduct a primary assessment of problems that are a threat to life if not corrected immediately.
18.0 Demonstrate BLS procedures.
19.0 Recognize and control bleeding.
20.0 Recognize and control shock.
21.0 Understand the importance of emergency medications.
22.0 Demonstrate understanding of airway management, respiration and artificial ventilation.
23.0 Provide secondary assessment.
24.0 Identify musculo-skeletal injuries.
25.0 Demonstrate proper immobilization of a Cervical/Spinal injury.
26.0 Demonstrate proper extremity immobilization as well as other immobilization for other injuries (pelvis, ribs).
27.0 Provide emergency evacuation and transfer of a sick and/or injured person.
28.0 Identify and provide initial care for a sick and/or injured patient.
29.0 Identify and care for patients who are in special situations.
30.0 Provide triage to victims of multiple casualty incidents.
31.0 Recognize life-threatening situations.
32.0 Recognize entrapment situations.
33.0 Assist with emergency childbirth.
34.0 Identify critical incident stressors.

Florida Department of Education
Student Performance Standards

Program Title: Emergency Medical Responder
Career Certificate Program Number: H171500

The **Basic Health Care Worker (HSC0003)** is referred to as the **Health Science Core** and is the first OCP in the majority of the Career Certificate Program health science programs. Secondary and Postsecondary students completing the health science core will not have to repeat the core in any other health science program in which it is a part. When the recommended sequence is followed, the structure allows students to complete at specified points for employment or remain for advanced training or cross-training.

Career Certificate Program Course Number: HSC0003
Occupational Completion Point: A
Basic Healthcare Worker – 90 Hours – SOC Code 31-9099

To ensure consistency whenever these courses are offered, the health science core standards (1-11) have been placed in a separate document.

CTE Standards and Benchmarks	
12.0	Demonstrate an understanding of the roles and responsibilities of the Emergency Medical Responder. -- The student will be able to:
12.01	Describe the role of Emergency Medical Responder as a member of the EMS team.
12.02	List and describe the responsibilities of the Emergency Medical Responder for the provision of pre-hospital emergency care within the local EMS system.
12.03	Describe principles of safely operating a ground ambulance.
12.04	Understand the guidelines of operating safety in and around a landing zone during air medical operations and transport.
12.05	Implement appropriate Joint Commission patient safety goals.
13.0	Demonstrate an ability to communicate effectively as part of the EMS team. -- The student will be able to:
13.01	Demonstrate the proper procedure for the transfer of patient care to other EMS personnel.
13.02	Describe information regarding a patient's condition and treatment that need to be communicated.
13.03	Communicate the Emergency Medical Responder’s observations and actions to whomever patient care is transferred.
13.04	Describe and apply the principles of communicating with patients in a manner that achieves a positive relationship.

CTE Standards and Benchmarks	
	13.05 Recognize simple medical prefixes, suffixes, and combining words.
14.0	Demonstrate an understanding of medicolegal aspects. – The student will be able to:
	14.01 Describe and demonstrate an understanding of the medicolegal aspects of an Emergency Medical Responder's provision of emergency medical care in the jurisdiction having authority, including, but not limited to, duty to act, standard of care, consent to care, forcible restraint, abandonment, documentation, and any applicable Good Samaritan Laws.
	14.02 Practice within medicolegal standards.
15.0	Determine and record vital signs of a sick or injured person. – The student will be able to:
	15.01 Determine and record skin color, temperature, and moistness.
	15.02 Demonstrate ability to accurately measure and record vital signs including manual blood pressure.
16.0	Use medical identification devices. – The student will be able to:
	16.01 Identify the most commonly used digital medical identification devices.
	16.02 Apply the information contained on or in the medical identification devices to patient assessment and patient care procedures.
17.0	Conduct a primary assessment of problems that are a threat to life if not corrected immediately. – The student will be able to:
	17.01 Determine and record the level of consciousness of the injured person including person, place, time, and events.
	17.02 Assess for an inadequate airway, inadequate respiration's, inadequate circulation and profuse bleeding.
	17.03 Recognize when immediate correction is necessary.
	17.04 Assess patient and determine if the patient has a life threatening condition.
	17.05 Use spinal precautions as appropriate
18.0	Demonstrate BLS procedures. – The student will be able to:
	18.01 Establish and maintain an open airway using both manual and mechanical airway techniques.
	18.02 Restore breathing and circulation by means of cardiopulmonary resuscitation (CPR).
	18.03 Demonstrate proficiency in the use of an automated external defibrillator (AED).
19.0	Recognize and control bleeding. – The student will be able to:
	19.01 Identify items that can be used to control external bleeding and minimize the contamination of open wounds.

CTE Standards and Benchmarks	
	19.02 Apply pressure dressings that will control bleeding and minimize the contamination of open wounds.
	19.03 Identify the likelihood of internal bleeding through observations of signs, symptoms and mechanisms of injury.
	19.04 Care for a patient who exhibits the signs and symptoms of internal bleeding.
	19.05 Apply current trauma treatment standards when applying a tourniquet which may include Pre-Hospital Trauma Life Support (PHTLS) standards.
20.0	Recognize and control shock. – The student will be able to:
	20.01 Recognize the likelihood that shock may occur or be present on the basis of patient assessment and observation of a mechanism of injury.
	20.02 Provide anti-shock measures as a part of routine patient care.
21.0	Understand the importance of emergency medications. – The student will be able to:
	21.01 Understand the advantages, disadvantages, and techniques of self and peer administration of an intramuscular injection by auto injector.
	21.02 Describe the names, effects, indications, routes of administration, and dosages for specific medications (I.E chemical antidote auto injector devices).
22.0	Demonstrate understanding of airway management, respiration, and artificial ventilation. – The student will be able to:
	22.01 Apply knowledge of anatomy and physiology to airway management procedures (I.E. oxygenation and perfusion).
	22.02 Understand the pathophysiology of respiratory dysfunction.
	22.03 Use available mechanical devices to assure the maintenance of an open airway and assist ventilation according to American Heart Association (AHA) standards.
	22.04 Demonstrate proficiency in supplemental oxygen therapy including portable oxygen cylinder and oxygen delivery devices.
	22.05 Describe and demonstrate airway management utilizing of upper airway suctioning.
23.0	Provide secondary assessment. – The student will be able to:
	23.01 Conduct a methodical head-to-toe physical examination to discover conditions not found during the primary assessment.
	23.02 Interview the sick or injured person to obtain facts relevant to the person's condition.
	23.03 Interview co-workers, witnesses, family members, or other individuals to obtain facts relevant to the person's condition.
24.0	Identify musculo-skeletal injuries. – The student will be able to:
	24.01 Identify the various types of musculo-skeletal injuries.

CTE Standards and Benchmarks	
	24.02 Immobilize and otherwise care for suspected fractures, dislocations, sprains and strains with available supplies and equipment, including commercially available and improvised devices.
	24.03 Demonstrate an understanding of the function and need for traction splints.
25.0	Demonstrate proper immobilization of a cervical/spinal injury. – The student will be able to:
	25.01 Identify need for spinal immobilization.
	25.02 Maintain in-line immobilization of cervical spine.
	25.03 Place proper fitting rigid extrication-type cervical collar.
	25.04 Place patient in supine position on full length spine board.
	25.05 Secure patient to immobilization device.
26.0	Demonstrate proper extremity immobilization as well as other immobilization for other injuries (pelvis, ribs). – The student will be able to:
	26.01 Identify need for extremity immobilization.
	26.02 Assesses motor, sensory, and distal circulation in extremities.
	26.03 Place proper fitting splint on extremity.
	26.04 Reassesses motor, sensory, and distal circulation in extremities.
27.0	Provide emergency evacuation and transfer of a sick and/or injured person. – The student will be able to:
	27.01 Describe situations when a person should be evacuated or transferred.
	27.02 Use the most appropriate assist, drag or carry (alone or with a partner) to move a sick or injured person from a dangerous location to a safe place.
	27.03 Maintain safety precautions during evacuation and transfer.
	27.04 Demonstrate an understanding of the purpose and use of transfer methods for patients including stair chairs and stretchers.
28.0	Identify and provide initial care for a sick and/or injured patient. – The student will be able to:
	28.01 Identify and care for patients with non-traumatic chest pain, utilizing patient assessment.
	28.02 Identify and care for patients experiencing respiratory distress, utilizing patient assessment.
	28.03 Identify and care for patients experiencing a diabetic emergency, utilizing patient assessment.

CTE Standards and Benchmarks	
	28.04 Identify and care for a patient who is experiencing a seizure, utilizing patient assessment.
	28.05 Identify and care for a patient who has ingested, inhaled, absorbed or been injected with a poisonous substance.
	28.06 Identify and care for a patient who is in an altered state of consciousness, utilizing patient assessment.
	28.07 Identify and care for a patient who is experiencing a stroke, utilizing patient assessment.
	28.08 Identify and care for a patient who has a foreign body in the eye, utilizing patient assessment.
	28.09 Identify and care for a patient with thermal, chemical, or electrical burns, determining the severity including degree, body surface area, type, and location.
	28.10 Identify and care for a patient suffering from an environmental emergency including heat cramps, heat exhaustion, heat stroke, and frostbite, utilizing patient assessment.
29.0	Identify and care for patients who are in special situations. – The student will be able to:
	29.01 Identify patients who have special needs.
	29.02 Care for injured/ill children.
	29.03 Care for the injured/ill elderly.
	29.04 Care for the injured/ill physically disabled.
	29.05 Care for the injured/ill developmentally disabled.
30.0	Provide triage to victims of multiple casualty incidents. – The student will be able to:
	30.01 Categorize the victims of multiple casualty incidents according to the severity of injury or illness on the basis of patient assessments.
	30.02 Use triage tags or other identification devices available locally to indicate priorities for pre-hospital emergency care and transportation to medical facilities.
	30.03 Work as a member of a team to perform triage at locations of multiple casualty incidents.
	30.04 Work as a member of a team to perform patient assessments at locations of multiple casualty incidents.
	30.05 Work as a member of a team to carry out patient care procedures at the locations of multiple casualty incidents.
	30.06 Demonstrate knowledge of the operating procedures during a terrorist event or during a natural or man-made disaster.
	30.07 Demonstrate a basic understanding of the Incident Command System (ICS) implemented by the Federal Emergency Management Agency (FEMA),
	30.08 Discuss and demonstrate Hazardous Waste Operations and Emergency Response (HAZWOPER) standard, 29 CFR 1910.120

CTE Standards and Benchmarks	
	(q)(6)(i) – First Responder Awareness Level
31.0	Recognize life-threatening situations. – The student will be able to:
31.01	Take steps to minimize the chance of injury or death to all involved when confronted with a potentially life-threatening situation on the basis of an assessment of a scene.
32.0	Recognize entrapment situations. – The student will be able to:
32.01	Identify accident-related hazards and undertake hazard control measures consistent with the capabilities of the Emergency Medical Responder and available equipment.
32.02	Use available equipment safely to gain access to persons who are entrapped.
32.03	Use available equipment safely to disentangle persons from mechanisms of entrapment.
33.0	Assist with emergency childbirth. – The student will be able to:
33.01	Evaluate a mother to determine whether delivery is imminent.
33.02	Assist with a normal delivery.
33.03	Care for the mother and baby.
33.04	Identify abnormal childbirth situations and care for the mother and baby within the Emergency Medical Responder's capabilities.
34.0	Identify critical incident stressors. – The student will be able to:
34.01	Identify stressors which may affect the performance of an Emergency Medical Responder.
34.02	Identify stressors which may affect the behavior of a sick or injured person.
34.03	Carry out procedures to minimize critical incident stress.

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

In order for students to take the NREMT003 Emergency Medical Responder exam the program must be approved by the National Registry for Emergency Medical Technicians. To receive approval from NREMT each program must be “authorized” by the Bureau of Emergency Medical Services by completing the instructor qualifications form required by Bureau of EMS.

The Emergency Medical Responder instructor shall issue to each student documentation of successful course completion which shall include date of issuance, student's name, name of sponsoring agency (DOE), name of training agency, and instructor's printed name and signature, plus the wording "issued pursuant to section 401.435 F.S." The instructor must also maintain on file following course completion, a roster listing the names of students who successfully completed the course, the dates and location of the course, and the name of the instructor.

The student performance standards for Emergency Medical Responder were adapted and condensed from U. S. Department of Transportation Emergency Medical Services; Emergency Medical Responder Training Course, National Standard Curriculum Instructors Lesson Plan and American Society for Testing and Materials, Committee F-30. Administrators and instructors should refer to these materials for additional details.

This program meets the Department of Health’s education requirements for HIV/AIDS, Domestic Violence and Prevention of Medical Errors. Although not a requirement for initial licensure, it is a requirement for renewal, therefore the instructor may provide a certificate for renewal purposes to the student verifying these requirements have been met.

If students in this program are seeking a licensure, certificate or registration through the Department of Health, please refer to 456.0635 F.S. for more information on disqualification for a license, certificate, or registration through the Department of Health.

Outcomes 01-11 are referred to as the Health Science Core and do not have to be completed if the student has previously completed the Core in another health occupations program at any level. The Core should be taken first or concurrently with the first course in the program. Following the successful completion of the core, the student is eligible to take the National Health Care Foundation Skill Standards Assessment with instructor approval and the completion of a portfolio.

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)

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.

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: **Mental Health Technician**
Program Type: **Career Preparatory**
Career Cluster: **Health Science**

Career Certificate Program	
Program Number	H180100
CIP Number	0351150204
Grade Level	30, 31
Standard Length	480 hours
Teacher Certification	Refer to the **Program Structure** section.
CTSO	HOSA: Future Health Professionals
SOC Codes (all applicable)	29-2053 Mental Health Technicians 31-1014 Nursing Assistants 31-9099 Healthcare Support Workers, All Other
Basic Skills Level	Mathematics: 9 Language: 9 Reading: 9

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 Health Science 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 Health Science career cluster.

The purpose of this program is to prepare students for employment as mental health technicians, psychiatric aides or psychiatric technicians (SOC 29-2053 Mental Health Technicians) and nursing assistants (SOC 31-1014 Nursing Assistants). Additional certification and licensure opportunities (i.e. Certified Recovery Peer Specialist, Certified Community Health Worker and Certified Behavioral Health Technician) are noted at the end of the document under **Special Notes.**

The content includes but is not limited to nursing assistant skills, physical assessment, patient teaching and education, wellness and disease concepts, HIV/AIDS, growth and development, mental illness, anxiety, bipolar disorder, depression, schizophrenia, psychosis, personality disorders, emergency and crisis intervention, Alzheimer's Disease and dementia, intellectual developmental disabilities, substance abuse, group therapy,

stress management, employability skills, safety and security issues, legal and ethical, therapeutic communication, documentation, clinical skills including hygiene, vital signs and CPR.

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 3 occupational completion points.

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.

This program is a planned sequence of instruction consisting of 3 occupational completion points.

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	HSC0003	Basic Healthcare Worker	REG NURSE 7 G LPN 7 G* PRAC NURSE @7 %7%G	90 hours	31-9099
B	HCP0121	Nurse Aide and Orderly (articulated)		75 hours	31-1014
C	HCP0810	Mental Health Technician	REG NURSE 7 G	315 hours	29-2053

***The LPN 7 G district issued certification is a practical nurse. A practical nurse can only be utilized as an instructor of the CNA training program when they are supervised by the program coordinator which must be a registered nurse. Please refer to F.A.C. 64B9-15.005 for requirements.**

FOR REGULATED PROGRAMS (MENTAL HEALTH TECHNICIAN IS NOT REGULATED THIS WOULD APPLY TO THE CAN LICENSURE)

Successful completion of this program from an approved school prepares the student for certification for employment as a Nursing Assistant in a nursing home, in accordance with Chapter 464.203, Florida Statutes. To be approved, this program must be supervised by a registered nurse and have follow the faculty qualifications set forth in 64B9-15.005 (3) (a) F.A.C.

New programs must be approved by the Board of Nursing, Department of Health prior to enrolling students.

Those students who satisfactorily complete an approved course are eligible to apply to take the national nursing assistant examination being utilized in Florida, in accordance with Chapter 464.203, F.S. This program includes both Acute and Long Term Care.

In accordance with 64B9-15.005 F.A.C., students will perform nursing skills in the clinical and simulated laboratory settings under the supervision of a qualified instructor. The recommended teacher/student ratio in the clinical area is 1 to 12, but the maximum is 1 to 15.

In accordance with 64B9-15.006 F.A.C., Clinical and simulated laboratory learning experiences must correlate with 80 hours of didactic instruction In addition, a minimum of 40 hours clinical experiences must be obtained. Simulated labs are not a substitute for clinical experience. The clinical instruction shall include at least 20 hours of long term care clinical instruction in a licensed nursing home or licensed long term care facility.

In addition, Students must have a minimum of 16 hours of training in communication and interpersonal skills, infection control, safety/emergency procedures, promoting residents' independence, and respecting residents' rights prior to any direct contact with a resident.

According to Section 400.211, F.S., persons who are enrolled in, or have completed a state approved nursing assistant training program may be employed by a licensed nursing facility for a period of four months. However, the certification requirements must be met within four months of such initial employment.

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 of the healthcare delivery system and health occupations.
02.0 Demonstrate the ability to communicate and use interpersonal skills effectively.
03.0 Demonstrate legal and ethical responsibilities.
04.0 Demonstrate an understanding of and apply wellness and disease concepts.
05.0 Recognize and practice safety and security procedures.
06.0 Recognize and respond to emergency situations.
07.0 Recognize and practice infection control procedures.
08.0 Demonstrate an understanding of information technology applications in healthcare.
09.0 Demonstrate employability skills.
10.0 Demonstrate knowledge of blood borne diseases, including HIV/AIDS.
11.0 Apply basic math and science skills.
12.0 Use verbal and written communications specific to nurse assisting
13.0 Demonstrate legal and ethical responsibilities specific to nurse assisting
14.0 Perform physical comfort and safety functions specific to nurse assisting
15.0 Provide personal patient care
16.0 Perform patient care procedures
17.0 Apply principles of nutrition
18.0 Provide care for geriatric patients
19.0 Apply the principles of infection control specific to nursing assisting
20.0 Provide biological, psychological, and social support
21.0 Perform supervised organizational functions, following the patient plan of care
22.0 Assist with restorative (rehabilitative) activities
23.0 Perform skills related to the hospital setting (optional)
24.0 Demonstrate and implement knowledge of mental health, mental illness, including substance use/ abuse and addiction.
25.0 Identify the spectrum of interventions and treatment for mental health problems and the types of delivery of care in the stabilization and rehabilitation of the mental health patient.
26.0 Demonstrate an understanding of various mental health disorders, observable signs and symptoms and general interventions to be implemented by the mental health technician.
27.0 Provide therapeutic communication, knowledge of therapeutic relationship, and support for the mental health patient.
28.0 Perform skills and documentation related to caring for and supervising the mental health patient in various types of treatment settings.
29.0 Implement crisis intervention techniques and emergency services if necessary in the mental health setting.
30.0 Participate as a member of a multidisciplinary team in the planning and implementation of care and treatment for individual patients.
31.0 Provide patient education and information on the various resources and support groups available for the mentally ill, substance using or addictive client and family members.
32.0 Conduct individual, group and family presentations / discussions to facilitate patient recovery and wellness.
33.0 Perform pharmacological aspects of care as directed (residential and assisted living facility settings).

Florida Department of Education
Student Performance Standards

Program Title: Mental Health Technician
Career Certificate Program Number: H180100

The **Basic Health Care Worker (HSC0003)** is referred to as the **Health Science Core** and is the first OCP in the majority of the Career Certificate Program health science programs. Secondary and Postsecondary students completing the health science core will not have to repeat the core in any other health science program in which it is a part. When the recommended sequence is followed, the structure allows students to complete at specified points for employment or remain for advanced training or cross-training.

Career Certificate Program Course Number: HSC0003
Occupational Completion Point: A
Basic Healthcare Worker – 90 Hours – SOC Code 31-9099

To ensure consistency whenever these courses are offered, the health science core standards (1-11) have been placed in a separate document.

Course Number: HCP0121 **Occupational Completion Point: B** **Nurse Aide and Orderly (Articulated) – SOC Code 31-1014**	
12.0	Use verbal and written communications specific to nurse assisting. – The student will be able to:
12.01	Obtain specified data from patient and family.
12.02	Utilize verbal and written information to assist with the patient's plan of care.
12.03	Demonstrate use of the communication system.
13.0	Demonstrate legal and ethical responsibilities specific to nurse assisting. – The student will be able to:
13.01	Demonstrate legal and ethical behavior within the role and scope of nursing assistant responsibilities.
13.02	Describe the purpose of the chain of communication (i.e., to resolve patient or employee problems).
13.03	Follow policies and procedures affecting the health, safety, and well-being of patients.
13.04	Recognize and report signs of substance abuse.
13.05	Demonstrate the understanding of vulnerable population abuse and reporting procedures per agency.
13.06	Follow legal guidelines in documentation.

13.07	Demonstrate methods regarding risk management including prevention and quality of care.
13.08	Exhibit behavior supporting and promoting patients' and/or residents' rights.
13.09	Recognize that a C.N.A. must self-report any crimes they've been involved in within 30 days of the offense in accordance with (FS 456.0727(1) w).
13.10	Discuss Florida certified nursing assistant rules including role limitations.
13.11	Recognize potential for and prevention of medical errors.
13.12	Discuss proper procedures to follow regarding medical errors.
14.0	Perform physical comfort and safety functions specific to nurse assisting. – The student will be able to:
14.01	Maintain patient units and equipment.
14.02	Maintain service areas on the units including supplies and equipment.
14.03	Observe, report, and record changes in the patient's behavior daily, including mental awareness.
14.04	Adjust bed and side-rails.
14.05	Lift, hold, and transfer patients including the use of the various assistive devices and equipment, utilizing proper body mechanics and patient safety measures.
14.06	Turn and position patient.
14.07	Demonstrate the proper use of a gait belt in both transfer and ambulation.
14.08	Transfer patient to stretcher.
14.09	Apply protective devices as directed (e.g., vest and belt).
14.10	Apply comfort devices as directed (e.g., foot-board, over-bed cradle, alternating pressure mattress).
14.11	Assist patient to dangle.
14.12	Assist patient in ambulation, including the use of crutch, cane, or walker.
14.13	Assist patient in using wheelchair.
14.14	Assist patient with care and use of prosthetic/orthotic devices.
14.15	Describe emergency procedures utilized in the clinical area(s).
14.16	Implement appropriate regulatory and accrediting agency patient safety guidelines.
15.0	Provide personal patient care. -- The student will be able to:

15.01	Give bed bath; observe and report changes in patient including skin and level of consciousness.
15.02	Administer back rub.
15.03	Assist with shower or tub bath, including the use of specialty tubs.
15.04	Assist patient with sink, tub, shower, or bed shampoo.
15.05	Demonstrate the use of a safety and/or electric razor to shave the patient.
15.06	Groom patient, including hair, skin, foot, hand, and nail care.
15.07	Assist with and/or administer oral hygiene including denture care.
15.08	Assist patient with toileting using various types of restorative and rehabilitative equipment.
15.09	Assist patient to dress.
15.10	Assist patient with meals.
15.11	Assist with bowel and bladder training.
15.12	Assist and/ or provide perineal care.
15.13	Empty, measure and record urinary output and/or drainage.
15.14	Assist patient with both donning and doffing prosthesis and brace.
15.15	Demonstrate application and use of a leg bag, leg strap and dignity bag.
15.16	Monitor and assist with the drainage of urostomy bags and colostomy bags.
16.0	Perform patient care procedures. – The student will be able to:
16.01	Demonstrate ability to accurately measure, record and report vital signs.
16.02	Assist with the admission of a patient and/or resident.
16.03	Assist with transfer of patient.
16.04	Assist with discharge of patient.
16.05	Make unoccupied/occupied bed.
16.06	Measure and record patient's height and weight.
16.07	Assist patient in passive range-of-motion exercises.

16.08	Apply anti-embolic hose and sequential compression devices.
16.09	Collect, strain, and/or test routine urine specimen.
16.10	Collect timed urine specimen.
16.11	Collect clean-catch (midstream-voided) urine specimen.
16.12	Record fluid intake and output (I&O).
16.13	Observe, record, and report patient's emesis.
16.14	Monitor and provide with care of urinary catheters and drainage systems for both males and females.
16.15	Assist with ostomy care including emptying or changing ostomy bags that do not adhere to the skin.
16.16	Collect stool specimen.
16.17	Perform postmortem care.
16.18	Maintain patient-belongings list.
16.19	Assist the nurse with care of the patient with complex medical needs.
16.20	Assist with the collection of a sputum specimen.
17.0	Apply principles of nutrition. – The student will be able to:
17.01	Identify nutrients and food groups.
17.02	Explain regional, cultural, and religious food references.
17.03	Describe special diets.
17.04	Prepare a basic food plan.
17.05	Check patient's diet tray for accuracy.
17.06	Demonstrate knowledge of the need for thickened liquids and fluid consistency.
17.07	Identify methods of maintaining fluid balance including forcing and restricting fluids.
17.08	Monitor and document nutritional intake.
18.0	Provide care for geriatric patients. – The student will be able to:
18.01	Identify methods and procedures to prevent pressure ulcers.

	18.02	Identify methods to prevent falls in the elderly.
	18.03	Identify safety principles as related to the elderly.
	18.04	Describe general characteristics, particular needs, and problems of the elderly.
	18.05	Identify attitudes and living habits that promote positive mental and physical health for the elderly.
	18.06	Distinguish between fact and fallacy about the aging process.
	18.07	Identify the need for community resources and services available to the elderly and their family.
	18.08	Apply reality orientation techniques and validation therapy unless it is contraindicated by the patient diagnosis (Alzheimer's or dementia).
	18.09	Provide and involve patients in diversional activities.
	18.10	Identify common alterations in elderly patient behavior.
	18.11	Provide care for patients with special needs (e.g., impaired hearing, impaired vision, immobility, impaired body functions, cognitively impaired (dementia)).
	18.12	Recognize and respond appropriately to symptoms of common diseases, including dementia, depression/suicide and Alzheimer's.
	18.13	Demonstrate awareness of common behaviors in drug use and abuse in the elderly.
	18.14	Report concerns to the nurse related to drug use and abuse in the elderly patient.
	18.15	Identify components of the grief process.
	18.16	Demonstrate an understanding of end of life care, hospice and palliative care.
19.0	Apply the principles of infection control specific to nursing assisting. – The student will be able to:	
	19.01	Provide care for patients with infectious diseases applying the principles of "standard precautions" utilized with all patients as well as special procedures required.
	19.02	Set up isolation unit using proper personal protective equipment (PPE) for all types of isolation including donning and removing PPE appropriately.
	19.03	Follow isolation procedure with food tray, garments, and other materials.
	19.04	Collect specimen from patient in isolation.
20.0	Provide biological, psychological, and social support. – The student will be able to:	
	20.01	Discuss family roles and their significance to health.
	20.02	Respond to patient and family emotional needs.

21.0	Perform supervised organizational functions, following the patient plan of care. – The student will be able to:
	21.01 Organize patient-care assignments.
	21.02 Complete assignments accurately and in a timely manner.
22.0	Assist with restorative (rehabilitative) activities. – The student will be able to:
	22.01 List the purposes of restorative (rehabilitation) program.
	22.02 Assist patient with specified restorative (rehabilitation) needs.
	22.03 Assist patients/residents to reach the optimum level of independence.
23.0	Perform skills related to the hospital setting. (optional) – The student will be able to:
	23.01 Care for hospital equipment and supplies.
	23.02 Transfer patient to stretcher.
	23.03 Assist patient to apply binders.
	23.04 Care for patient in skin and skeletal traction.
	23.05 Assist with pre-operative and post-operative patient care.
	23.06 Reinforce dressings under the supervision of the RN/LPN.
	23.07 Obtain and record an apical pulse.
	23.08 Obtain and record an apical-radial pulse.
	23.09 Obtain and record pedal pulse.
	23.10 Provide cast care and/or pin care.
	23.11 Provide care for eye glasses, artificial eyes, and contact lens.

Course Number: HCP0810 **Occupational Completion Point: C** **Mental Health Technician – 315 Hours – SOC Code 29-2053**	
24.0	Demonstrate and implement knowledge of mental health, mental illness, including substance use/abuse and addiction. — The student will be able to:
	24.01 Define and discuss mental health.

	24.02 Define and discuss mental illness and contributing factors.
	24.03 Display understanding of The American Psychiatric Association, Diagnostic and Statistical Manual of Mental Disorders (DSM-5).
	24.04 Display awareness of the current trends and issues in the field of mental health i.e. Healthy People 2020 Mental Health Objectives.
	24.05 Define and discuss substance use/abuse; addiction; co-occurring disorders and comorbidity.
	24.06 Demonstrate knowledge of the 10 classes of drugs with Substance –Related and Addictive Disorders including prevalence, risks, consequences, intoxication, and withdrawal. 24.06.01 Alcohol 24.06.02 Caffeine 24.06.03 Cannabis 24.06.04 Hallucinogens 24.06.05 Inhalants 24.06.06 Opioids 24.06.07 Sedatives, Hypnotics and Anxiolytics 24.06.08 Stimulants 24.06.09 Tobacco 24.06.10 Other - synthetic drugs and bath salts
	24.07 Implement knowledge of Maslow's hierarchy of needs, physical responses to stress, psychological responses to stress, ego defense mechanisms, stages of grief, and stages of growth and development while caring for the mental health patient.
	24.08 Implement knowledge of cultural and spiritual considerations while caring for the mental health patient.
25.0	Identify the spectrum of interventions and treatment for mental health problems and the types of delivery of care in the stabilization and rehabilitation of the mental health patient. -- The student will be able to:
	25.01 Display knowledge of prevention programs (i.e. health wellness, stress management, drug education programs, campaigns, parenting programs etc.).
	25.02 Display knowledge of early intervention programs.
	25.03 Display knowledge of different types of treatment and support including the following: 25.03.01 inpatient hospitalization: crisis intervention, detoxification, stabilization and case management 25.03.02 partial hospitalization programs 25.03.03 long term care facilities 25.03.04 community mental health centers and developmental disability centers 25.03.05 clinics 25.03.06 residential facilities 25.03.07 mobile outreach units
	25.04 Describe and identify the multidisciplinary treatment team members and their roles in the stabilization and rehabilitation of the mental health patient.
	25.05 Display knowledge of the chain of command at various treatment settings.

	25.06 Describe the difference between an involuntary and voluntary admission.
	25.07 Display knowledge of Individual therapy, group therapy, cognitive behavioral therapy, family therapy, education groups, support groups, and self- help groups.
	25.08 Display knowledge of the process of recovery and relapse prevention.
	25.09 Demonstrate knowledge of the various types of complementary and integrative therapies.
	25.10 Demonstrate knowledge of pharmacology treatment, side effects and be able to identify patient reactions.
	25.11 Demonstrate knowledge of electroconvulsive therapy (ECT).
26.0	Demonstrate an understanding of various mental health disorders, observable signs and symptoms and general interventions to be implemented by the mental health technician. -- The student will be able to:
	26.01 Discuss observable signs and symptoms and demonstrate general interventions to be implemented by the mental health technician for the following: 26.01.01 Anxiety 26.01.02 Obsessive Compulsive Disorder (OCD) 26.01.03 Trauma and Stressor Related Disorders 26.01.04 Substance Use and Addictive Disorders 26.01.05 Schizophrenia and Psychosis 26.01.06 Depression and Suicide 26.01.07 Bipolar 26.01.08 Personality Disorders 26.01.09 Eating Disorders 26.01.10 Neurodevelopment Disorders (i.e. autism spectrum disorder) and Neurocognitive Disorders (i.e. dementia)
27.0	Provide therapeutic communication, knowledge of therapeutic relationship, and support for the mental health patient. -- The student will be able to:
	27.01 Ensure quality patient care by developing good rapport and understanding of patient's needs.
	27.02 Display empathy, respect and nonjudgmental attitude to foster trust.
	27.03 Identify self-awareness issues that can enhance or hinder the mental health technician's role in establishing rapport with the mental health patient.
	27.04 Display knowledge and understanding of effective communication by discussing the communication process: (sender, message, and receiver).
	27.05 Convey simple, clear and direct communication when speaking with the mental health or developmentally disabled patient.
	27.06 Display good listening skills (show interest and concern, establish eye contact, eliminate distractions etc.) when patient is speaking.
	27.07 Apply knowledge of multicultural considerations while communicating.

27.08	Demonstrate awareness of the mental health patient's nonverbal cues and behaviors.
27.09	Display knowledge of therapeutic communication techniques and nontherapeutic communication blocks.
27.10	Differentiate between direct and open-ended questioning.
27.11	Demonstrate communication techniques which enable an effective exchange of information, ideas and feelings.
27.12	Reinforce and acknowledge patient of strengths, resources and that others care.
27.13	Provide positive feedback for acceptable behaviors.
27.14	Obtain meaningful information that may require an appropriate nursing intervention.
27.15	Demonstrate professional relationship and communication with appropriate boundaries.
28.0	Perform skills and documentation related to caring for and supervising the mental health patient in various types of treatment settings. -- The student will be able to:
28.01	Demonstrate HIPAA, confidentiality, legal, and ethical considerations while caring for the mental health patient.
28.02	Provide safety and security measures for inpatient hospitalization including: 28.02.01 room search 28.02.02 frequent monitoring 28.02.03 suicide and homicide precautions 28.02.04 contraband check 28.02.05 elopement precautions 28.02.06 crisis intervention 28.02.07 documentation of the above
28.03	Provide safety and security measures for outpatient and residential facilities and display knowledge of outpatient emergency procedures.
28.04	Apply knowledge of infection control and blood borne pathogens on the mental health unit and while caring for the mental health patient.
28.05	Assist, supervise, and document the mental health patient's: vital signs, ADL's (activities of daily living: hygiene, bathing, dressing, nutrition and elimination); group attendance, and interactions with staff, patients, and visitors.
28.06	Execute purposeful and productive interactions with patients and staff members.
28.07	Maintains and adheres to schedule on unit.
28.08	Maintain a professional atmosphere for a safe and therapeutic environment including respect for boundaries, use of touch, distance zones, set consistent limits especially with manipulative behavior, reports violations and exploitive behaviors immediately.
28.09	Demonstrate an understanding of subjective and objective observations.
28.10	Demonstrate observation and documentation skills of patient's verbal and nonverbal communication, changes in thought processes,

		mood, and behavior.
	28.11	Demonstrate the ability to observe and document physical signs and symptoms of patient responses to medications, drug use or change in condition and change in vital signs.
	28.12	Record events accurately and be able to place event in time and sequence
	28.13	Perform a verbal report and communicate to nurse or team leader completely, accurately and immediately re: changes in patient condition, vital signs, mood and behavior.
	28.14	Demonstrate correct documentation procedures and guidelines in regards to format, proper grammar and spelling, appropriate use of medical abbreviations, medical terminology, and types of charting utilized at different facilities.
29.0	Implement crisis intervention techniques and emergency services if necessary in the mental health setting. — The student will be able to:	
	29.01	Discuss the Five-Phase Aggression Cycle: triggering phase, escalation phase, crisis phase, recovery phase, and post crisis phase.
	29.02	Demonstrate vigilance in identifying behaviors that will initiate in increase in agitation and notify team members if observed.
	29.03	Assess suicide or homicide potential plan.
	29.04	Access emergency services if necessary.
	29.05	Utilize reality- oriented approach, active listening and attend to immediate needs.
	29.06	Remain with individual who is experiencing panic anxiety.
	29.07	Demonstrate knowledge of de-escalation techniques: calm voice, reduce stimulation, verbal redirect, time out (quiet time-open seclusion) relaxation techniques, distract with positive activity, discuss alternative strategies etc.
	29.08	Enforce policies and procedures related to aggressive and destructive behaviors including establishing an understanding of acceptable behaviors with the patient and enforcing rules for unacceptable behaviors.
	29.09	Demonstrate knowledge of facility's crisis intervention policy and crisis team to be notified if de-escalation techniques fail, and patient escalates to physical aggression.
	29.10	Discuss crisis intervention measures for Inpatient setting including: 29.10.01 "show of force" 29.10.02 locked seclusion 29.10.03 seclusion and restraints 29.10.04 use of prn medications
	29.11	Demonstrate knowledge of restraint policy.
	29.12	Assist with reintegration of patient to environment when stabilized and is able to participate.
	29.13	Demonstrate vigilance in identifying clues of a patient's suicidal intent – both direct and indirect and notify team member in charge.
	29.14	Demonstrate knowledge of risk factors for suicide and discuss suicide assessment.

	29.15	Recognize self-harm behaviors.
	29.16	Discuss methods of suicide.
	29.17	Discuss suicide ideation.
	29.18	Demonstrate knowledge of notifying nurse/person in charge or emergency services if patient communicates suicide plan or describes means to carry out suicide plan.
	29.19	Follow facility procedure for suicidal patient and access emergency services if necessary.
	29.20	Supervise the safety of a suicidal inpatient by removing all potentially harmful objects and monitoring them closely during meal time, medication administration, bathroom use, and activities.
	29.21	Demonstrate knowledge of suicide precautions.
	29.22	Demonstrate different levels of suicidal precautions as needed including 1:1 contact and constant visual observation, or every 15 minute checks and document.
	29.23	Demonstrate knowledge of no harm contract and limitations.
	29.24	Encourage client to express honest feelings, including anger.
	29.25	Display and communicate that patient has value.
	29.26	Perform room searches as necessary.
30.0	Participate as a member of a multidisciplinary team in the planning and implementation of care and treatment for individual patients. -- The student will be able to:	
	30.01	Relate unit problems and needs to the team leader, or head nurse as appropriate.
	30.02	Report violations of patients on unit and assist with issuing consequences.
	30.03	Contribute to the formulation of unit goals for individual patient.
	30.04	Participate in the planning, decision-making through staff meetings.
	30.05	Support hospital and residential policies and procedures as well as the procedure manual for the unit.
	30.06	Display understanding of the limitations of the role of the mental health technician.
	30.07	Display cooperation when asked to change assignments or tasks.
	30.08	Demonstrate ability to function independently without constant supervision.
	30.09	Show respect for coworkers and be able to interpret the organizational chart.
	30.10	Maintain own proper physical, emotional, and mental health through application of proper body mechanics, use of healthy coping mechanisms, ability to have self- awareness skills and seek healthy support when necessary.

	30.11	Promote a healthy interpersonal relationship with peers - show respect and recognition by positive communication.
	30.12	Collaborate with other team members in proper application of the nursing process: (assessment, planning, implementation and evaluation).
	30.13	Accept direction and constructive criticism without becoming defensive.
	30.14	Demonstrate ability to assist and function in various unit capacity: clerical and resident manager roles (i.e. display telephone etiquette, escort patient, order supplies, simple filing & fax, copy machine ability).
31.0	Provide patient education and information on the various resources and support groups available for the mentally ill, substance using or addictive client, and family members. – The student will be able to:	
	31.01	Demonstrate and discuss knowledge of local support groups, community mental health centers and developmental disabled centers that provide support and assistance to patients and their families.
	31.02	Demonstrate and discuss knowledge of 12- step program model for recovery.
	31.03	Display knowledge of the various self- help groups and peer assistance programs that can help addicts with recovery and rehabilitation.
	31.04	Demonstrate and discuss knowledge of 12 step self- help groups available for the family members and loved ones of drug addicts and alcoholics.
	31.05	Understand the principles of 12-step program, 12 steps and traditions, anonymity, key slogans, and use of sponsor.
	31.06	Demonstrate and discuss knowledge regarding national and local organizations for mental health and substance use issues such as NAMI, SAMHSA, NIMH, Autism Speaks.org and WRAP (Wellness Recovery Action Plan) for patient and family information.
32.0	Conduct individual, group and family presentations / discussions to facilitate patient recovery and wellness. — The student will be able to:	
	32.01	Demonstrate thorough knowledge and preparation of content and information for subject matter of educational group discussion/presentation as well as be able to state the goal of the presentation/discussion.
	32.02	Display awareness of demographics of group participants (gender, culture, age, socioeconomic etc.); awareness of participant's cognitive and developmental stages, readiness for education on subject and comprehension ability.
	32.03	Demonstrate awareness of group dynamics and group process.
	32.04	Communicate "ground rules" and expectations of the group.
	32.05	Display ability to create and enforce ground rules and appropriate boundaries for group learning and education.
	32.06	Demonstrate effective communication techniques (verbal and nonverbal) and use of possible role play, skits, handouts and creative supplements of content to be discussed or presented. (Assure client safety and know possible "triggers").
	32.07	Display ability to effectively "close" the group or presentation.
	32.08	Demonstrate knowledge of: attendance record, points allocated for attendance and participation.
	32.09	Communicate to counselor or nurse any behaviors or verbalizations of patient that warrant further exploration or immediate attention.

	32.10	Demonstrate ability to document patient attendance and observations in accordance to facility procedures and guidelines.
	32.11	Complete a post group self- analysis of one's own strengths and weaknesses.
	32.12	Assess modifications one would make for future group presentations.
33.0	Perform pharmacological aspects of care as directed (residential and assisted living facility settings). – The student will be able to:	
	33.01	Demonstrate knowledge of 6 Rights of Medication Administration (right medication, right dose, right patient, right time, right route, and right documentation) and policies.
	33.02	Observe and report side effects of medication.
	33.03	Administer prepackaged medication.
	33.04	Supervise and document patient medication administration.
	33.05	Encourage client to take prescribed medication. Document refusal.
	33.06	Assemble information about properties of medications being administered, their potential side effects.
	33.07	Demonstrate knowledge of the client's rights relating to taking or refusing medication.
	33.08	Determine client's medication history from records or family in relation to re-allergic reactions.
	33.09	Assure adequate supply and safeguard storage of medications to prevent overdose.
	33.10	Assume responsibility for information transfer to/from oncoming shift and communicate concerns or changes to nurse or person in charge.

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 program focuses on broad, transferable skills and stresses understanding and demonstration of the following elements of the health care industry; planning, management, finance, technical and production skills, underlying principles of technology, labor issues, community issues and health, safety, and environmental issues.

This program meets the Department of Health's education requirements for HIV/AIDS, Domestic Violence and Prevention of Medical Errors. Although not a requirement for initial licensure, it is a requirement for renewal, therefore the instructor may provide a certificate for renewal purposes to the student verifying these requirements have been met.

If students who are successful completers of the Mental Health Technician program can seek further certification through **The Florida Certification Board (FCB)** for **Certified Recovery Peer Specialist**: (CRPS -A Adult, CRPS-F Family, CRPS-V Veteran); or **Certified Community Health Worker** or **Certified Behavioral Health Technician**, please refer to the FCB for requirements, policies, and procedures. Applicants and certified professionals are individually responsible for ensuring they are following current FCB policy and procedures.

If students in this program are seeking a licensure **(CNA)**, certificate or registration through The Department of Health, please refer to 456.0635 F.S. for more information on disqualification for a license, certificate, or registration through the Department of Health.

The length of the Nursing Assistant (articulated) program is 165 hours. Completion of this program should enable the postsecondary student to be given advanced standing in the Patient Care Technician and Patient Care Assistant programs. It also allows successful completers of the Mental Health Technician program to enter the Practical Nursing program at OCP B.

Outcomes 01-11 are referred to as the Health Science Core and do not have to be completed if the student has previously completed the Core in another health occupations program at any level. The Core should be taken first or concurrently with the first course in the program. Following the successful completion of the core, the student is eligible to take the National Health Care Foundation Skill Standards Assessment with instructor approval and the completion of a portfolio.

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)

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.

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.

Basic Skills

In a Career Certificate Program offered for 450 hours or more, in accordance with Rule 6A-10.040, F.A.C., the minimum basic skills grade levels required for postsecondary adult career and technical students to complete this program are: Mathematics 9.0, Language 9.0, and Reading 9.0. These grade level numbers correspond to a grade equivalent score obtained on a state designated basic skills examination.

Adult students with disabilities, as defined in Section 1004.02(7), Florida Statutes, may be exempted from meeting the Basic Skills requirements (Rule 6A-10.040). Students served in exceptional student education (except gifted) as defined in s. 1003.01(3) (a), F.S., may also be exempted from meeting the Basic Skills requirement. Each school district and Florida College must adopt a policy addressing procedures for exempting eligible students with disabilities from the Basic Skills requirement as permitted in Section 1004.91(3), F.S.

Students who possess a college degree at the Associate of Applied Science level or higher; who have completed or are exempt from the college entry-level examination; or who have passed a state, national, or industry licensure exam are exempt from meeting the Basic Skills requirement (Rule 6A-10.040, F.A.C.) Exemptions from state, national or industry licensure are limited to the certifications listed on the Basic Skills and Licensure Exemption List which may be accessed from the CTE Program Resources page.

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

Health Science Core Standards and Benchmarks

Career Certificate Program and College Level

The **Health Science Core** is required in the majority of Career Certificate Program and College health science programs**.** At the Career Certificate Program level, the health science core is offered through Basic Health Care Worker (HSC0003) on page 2 of this document. In college credit programs it is encompassed in standards 1-11 listed on page 8 of this document. Secondary and Postsecondary students completing the health science core will not have to repeat the core in any other health science programs in which it is a part of. When the recommended sequence is followed, the structure allows students to complete at specified points for employment or remain for advanced training or cross-training. A student who completes the applicable competencies at any occupational completion point may either continue with the training program or exit as an occupational completer.

Outcomes 01-11 are referred to as the Health Science Core and do not have to be completed if the student has previously completed the Core in another health occupations program at any level. The Core should be taken first or concurrently with the first course in the program. Following the successful completion of the core, the student is eligible to take the National Health Care Foundation Skill Standards Assessment with instructor approval and the completion of a portfolio.

Standards

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

01.0 Demonstrate knowledge of the healthcare delivery system and health occupations.
02.0 Demonstrate the ability to communicate and use interpersonal skills effectively.
03.0 Demonstrate legal and ethical responsibilities.
04.0 Demonstrate an understanding of and apply wellness and disease concepts.
05.0 Recognize and practice safety and security procedures.
06.0 Recognize and respond to emergency situations.
07.0 Recognize and practice infection control procedures.
08.0 Demonstrate an understanding of information technology applications in healthcare.
09.0 Demonstrate employability skills.
10.0 Demonstrate knowledge of blood borne diseases, including HIV/AIDS.
11.0 Apply basic math and science skills.

Florida Department of Education
Student Performance Standards

Career Certificate Program /ATD	
Program Number	Identified in the program in which the course is associated.
CIP Number	Identified in the program in which the course is associated.
Grade Level	30, 31
Standard Length	90 Clock hours
Teacher Certification	Identified in the program in which the course is associated.
CTSO	HOSA: Future Health Professionals
SOC Codes (all applicable)	31-9099 Healthcare Support Workers, All Other
Basic Skills Level	Identified in the program in which the course is associated.

When offered as a Career Certificate Program or ATD clock hour program, the following course encompasses the health science core:

Career Certificate Program Course Number: HSC0003 **Occupational Completion Point: A** **Basic Healthcare Worker – 90 Hours – SOC Code 31-9099**	
01.0	Demonstrate knowledge of the healthcare delivery system and health occupations. – The student will be able to:
01.01	Identify the basic components of the healthcare delivery system including public, private, government and non-profit.
01.02	Identify common methods of payment for healthcare services.
01.03	Describe the various types of healthcare providers and the range of services available including resources to victims of domestic violence.
01.04	Describe the composition and functions of a healthcare team.
01.05	Identify the general roles and responsibilities of the individual members of the healthcare team.
01.06	Identify the roles and responsibilities of the consumer within the healthcare delivery system.
01.07	Identify characteristics of effective teams.
01.08	Recognize methods for building positive team relationships.

	01.09 Analyze attributes and attitudes of an effective leader.
	01.10 Recognize factors and situations that may lead to conflict.
	01.11 Demonstrate effective techniques for managing team conflict.
	01.12 Describe factors that influence the current delivery system of healthcare.
	01.13 Explain the impact of emerging issues including technology, epidemiology, bioethics and socioeconomics on healthcare delivery systems.
02.0	Demonstrate the ability to communicate and use interpersonal skills effectively. –T he student will be able to:
	02.01 Develop basic speaking and active listening skills.
	02.02 Develop basic observational skills and related documentation strategies in written and oral form.
	02.03 Identify characteristics of successful and unsuccessful communication including communication styles and barriers.
	02.04 Respond to verbal and non-verbal cues.
	02.05 Compose written communication using correct spelling, grammar, a formatting and confidentiality and specific formats of letter writing.
	02.06 Use appropriate medical terminology and abbreviations.
	02.07 Recognize the importance of courtesy and respect for patients and other healthcare workers and maintain good interpersonal relationships.
	02.08 Recognize the importance of patient/client educations regarding healthcare.
	02.09 Adapt communication skills to varied levels of understanding and cultural orientation including diverse age, cultural, economic, ethnic, and religious groups.
	02.10 Analyze elements of communication using a sender-receiver model.
	02.11 Distinguish between and report subjective and objective information.
	02.12 Report relevant information in order of occurrence.
03.0	Demonstrate legal and ethical responsibilities. – The student will be able to:
	03.01 Discuss the legal framework of the healthcare occupations including scope of practice legislation.
	03.02 Explain practices that could result in malpractice, liability, negligence, abandonment, false imprisonment and fraud.
	03.03 Demonstrate procedures for accurate documentation and record keeping.

03.04	Interpret healthcare facility policy and procedures.
03.05	Explain the “Patient’s Bill of Rights”.
03.06	Identify standards of the Health Insurance Portability and Accountability Act (HIPAA).
03.07	Describe advance directives.
03.08	Describe informed consent.
03.09	Explain the laws governing harassment, labor and employment.
03.10	Differentiate between legal and ethical issues in healthcare.
03.11	Describe a code of ethics consistent with the healthcare occupation.
03.12	Identify and compare personal, professional, and organizational ethics.
03.13	Recognize the limits of authority and responsibility of health care workers including legislated scope of practice.
03.14	Recognize and report illegal and/or unethical practices of healthcare workers.
03.15	Recognize and report abuse including domestic violence and neglect.
03.16	Distinguish among the five schedules of controlled substances.
04.0	Demonstrate an understanding of and apply wellness and disease concepts. – The student will be able to:
04.01	Describe strategies for prevention of diseases including health screenings and examinations.
04.02	Identify personal health practices and environmental factors which affect optimal function of each of the major body systems.
04.03	Identify psychological reactions to illness including defense mechanisms.
04.04	Identify complementary and alternative health practices.
04.05	Discuss the adverse effects of the use of alcohol, tobacco, and both legal and illegal drugs on the human body and apply safety practices related to these and other high risk behaviors.
04.06	Explain the basic concepts of positive self-image, wellness and stress.
04.07	Develop a wellness and stress control plan that can be used in personal and professional life.
04.08	Explore and utilize the U.S. Department of Agriculture’s nutrition resources.
04.09	Recognize the steps in the grief process.

05.0	Recognize and practice safety and security procedures. – The student will be able to:
05.01	Recognize safe and unsafe working conditions and report safety hazards.
05.02	Demonstrate the safe use of medical equipment.
05.03	Explain and apply the theory of root- cause analysis.
05.04	Identify and describe methods in medical error reduction and prevention in the various healthcare settings.
05.05	Identify and practice security procedures for medical supplies and equipment.
05.06	Demonstrate personal safety procedures based on Occupations Safety and Health Administration (OSHA) and Centers for Disease Control (CDC) regulations including standard precautions.
05.07	Recognize Safety Data Sheets and comply with safety signs, symbols, and labels.
05.08	Demonstrate proper body mechanics and ergonomics.
05.09	Demonstrate the procedure for properly identifying patients.
05.10	Demonstrate procedures for the safe transport and transfer of patients.
05.11	Describe fire, safety, disaster and evacuations procedures.
05.12	Discuss The Joint commission patient safety goals and any other applicable accrediting/regulatory agency guidelines.
06.0	Recognize and respond to emergency situations. – The student will be able to:
06.01	Record and monitor vital signs.
06.02	Describe legal parameters relating to the administration of emergency care.
06.03	Obtain and maintain training or certification on cardiopulmonary resuscitation (CPR), automated external defibrillator (AED), foreign body airway obstruction (FBAO), and first aid.
06.04	Recognize adverse drug related emergencies and take appropriate first aid action.
07.0	Recognize and practice infection control procedures. – The student will be able to:
07.01	Define principles of infection control including standard and transmission based precautions.
07.02	Demonstrate knowledge of medical asepsis and practice procedures such as hand-washing and isolation.
07.03	Demonstrate knowledge of surgical asepsis.

	07.04 Describe how to dispose correctly of biohazardous materials according to appropriate government guidelines such as OSHA.
08.0	Demonstrate an understanding of information technology applications in healthcare. – The student will be able to:
	08.01 Describe technology applications in healthcare.
	08.02 Define terms and demonstrate basic computer skills.
	08.03 Recognize technology applications in healthcare.
	08.04 Interpret information from electronic medical documents.
	08.05 Identify methods of communication to access and distribute data such as fax, e-mail, and internet.
09.0	Demonstrate employability skills. – The student will be able to:
	09.01 Identify personal traits or attitudes desirable in a member of the healthcare team.
	09.02 Exemplify basic professional standards of healthcare workers as they apply to hygiene, dress, language, confidentiality, and behavior (i.e. telephone etiquette, courtesy and self-introductions).
	09.03 Identify documents that may be required when applying for a job.
	09.04 Write an appropriate resume.
	09.05 Conduct a job search.
	09.06 Complete a job application form correctly.
	09.07 Examine levels of education, credentialing requirements including licensure and certification, employment opportunities, workplace environments, and career growth potential.
	09.08 Recognize levels of education, credentialing requirements, employment opportunities, workplace environments, and career growth potential.
	09.09 Identify acceptable work habits.
	09.10 Recognize appropriate affective/professional behavior.
	09.11 Compare careers within the health science career pathways (diagnostic services, therapeutic services, health informatics, support services and biotechnology research and development).
10.0	Demonstrate knowledge of blood borne diseases, including HIV/AIDS. – The student will be able to:
	10.01 Recognize emerging diseases and disorders.
	10.02 Distinguish between fact and fallacy about the transmission and treatment of diseases caused by blood borne pathogens including Hepatitis B.

10.03	Identify community resources and services available to the individuals with diseases caused by blood borne pathogens.
10.04	Identify "at risk" behaviors which promote the spread of diseases caused by blood borne pathogens and the public education necessary to combat the spread of these diseases.
10.05	Apply infection control techniques designed to prevent the spread of diseases caused by blood borne pathogens to the care of all patients following Centers for Disease Control (CDC) guidelines.
10.06	Demonstrate knowledge of the legal aspects of HIV/AIDS, including testing.
11.0	Apply basic math and science skills. – The student will be able to:
11.01	Draw, read, and report on graphs, charts, and tables.
11.02	Measure time, temperature, distance, capacity, and mass/weight.
11.03	Make, use and convert using both traditional and metric units.
11.04	Make estimations and approximations and judge the reasonableness of the result.
11.05	Convert from regular to 24 hour time.
11.06	Demonstrate ability to evaluate and draw conclusions.
11.07	Organize and communicate the results obtained by observation and experimentation.
11.08	Ask appropriate scientific questions and recognize what is involved in experimental approaches to the solution of such questions.
11.09	Calculate ratios.

Florida Department of Education
Student Performance Standards

AS / CCC / ATD	
CIP Number	Identified in the program in which the course is associated.
Program Type	College Credit
Standard Length	Identified in the program in which the course is associated.
CTSO	HOSA: Future Health Professionals
SOC Codes (all applicable)	31-9099 Healthcare Support Workers, All Other

When offered as college credit, Standards 1-11 encompasses the health science core:

01.0	Demonstrate knowledge of the healthcare delivery system and health occupations. – The student will be able to:
01.01	Identify the basic components of the healthcare delivery system including public, private, government and non-profit.
01.02	Identify common methods of payment for healthcare services.
01.03	Describe the various types of healthcare providers and the range of services available including resources to victims of domestic violence.
01.04	Describe the composition and functions of a healthcare team.
01.05	Identify the general roles and responsibilities of the individual members of the healthcare team.
01.06	Identify the roles and responsibilities of the consumer within the healthcare delivery system.
01.07	Identify characteristics of effective teams.
01.08	Recognize methods for building positive team relationships.
01.09	Analyze attributes and attitudes of an effective leader.
01.10	Recognize factors and situations that may lead to conflict.
01.11	Demonstrate effective techniques for managing team conflict.
01.12	Describe factors that influence the current delivery system of healthcare.

	01.13 Explain the impact of emerging issues including technology, epidemiology, bioethics, and socioeconomics on healthcare delivery systems.
02.0	Demonstrate the ability to communicate and use interpersonal skills effectively. – The student will be able to:
	02.01 Develop basic speaking and active listening skills.
	02.02 Develop basic observational skills and related documentation strategies in written and oral form.
	02.03 Identify characteristics of successful and unsuccessful communication including communication styles and barriers.
	02.04 Respond to verbal and non-verbal cues.
	02.05 Compose written communication using correct spelling, grammar, formatting and confidentiality and specific formats of letter writing.
	02.06 Use appropriate medical terminology and abbreviations.
	02.07 Recognize the importance of courtesy and respect for patients and other healthcare workers and maintain good interpersonal relationships.
	02.08 Recognize the importance of patient/client educations regarding healthcare.
	02.09 Adapt communication skills to varied levels of understanding and cultural orientation including diverse age, cultural, economic, ethnic and religious groups.
	02.10 Analyze elements of communication using a sender-receiver model.
	02.11 Distinguish between and report subjective and objective information.
	02.12 Report relevant information in order of occurrence.
03.0	Demonstrate legal and ethical responsibilities. – The student will be able to:
	03.01 Discuss the legal framework of the healthcare occupations including scope of practice legislation.
	03.02 Explain practices that could result in malpractice, liability, negligence, abandonment, false imprisonment and fraud.
	03.03 Demonstrate procedures for accurate documentation and record keeping.
	03.04 Interpret healthcare facility policy and procedures.
	03.05 Explain the “Patient’s Bill of Rights”.
	03.06 Identify standards of the Health Insurance Portability and Accountability Act (HIPAA).
	03.07 Describe advance directives.

	03.08 Describe informed consent.
	03.09 Explain the laws governing harassment, labor, and employment.
	03.10 Differentiate between legal and ethical issues in healthcare.
	03.11 Describe a code of ethics consistent with the healthcare occupation.
	03.12 Identify and compare personal, professional, and organizational ethics.
	03.13 Recognize the limits of authority and responsibility of health care workers including legislated scope of practice.
	03.14 Recognize and report illegal and/or unethical practices of healthcare workers.
	03.15 Recognize and report abuse including domestic violence and neglect.
	03.16 Distinguish among the five schedules of controlled substances.
04.0	Demonstrate an understanding of and apply wellness and disease concepts. – The student will be able to:
	04.01 Describe strategies for prevention of diseases including health screenings and examinations.
	04.02 Identify personal health practices and environmental factors which affect optimal function of each of the major body systems.
	04.03 Identify psychological reactions to illness including defense mechanisms.
	04.04 Identify complementary and alternative health practices.
	04.05 Discuss the adverse effects of the use of alcohol, tobacco, and both legal and illegal drugs on the human body and apply safety practices related to these and other high risk behaviors.
	04.06 Explain the basic concepts of positive self-image, wellness, and stress.
	04.07 Develop a wellness and stress control plan that can be used in personal and professional life.
	04.08 Explore and utilize the U.S. Department of Agriculture's nutrition resources.
	04.09 Recognize the steps in the grief process.
05.0	Recognize and practice safety and security procedures. – The student will be able to:
	05.01 Recognize safe and unsafe working conditions and report safety hazards.
	05.02 Demonstrate the safe use of medical equipment.
	05.03 Explain and apply the theory of root- cause analysis.

	05.04	Identify and describe methods in medical error reduction and prevention in the various healthcare settings.
	05.05	Identify and practice security procedures for medical supplies and equipment.
	05.06	Demonstrate personal safety procedures based on Occupations Safety and Health Administration (OSHA) and Centers for Disease Control (CDC) regulations including standard precautions.
	05.07	Recognize Safety Data Sheets and comply with safety signs, symbols, and labels.
	05.08	Demonstrate proper body mechanics and ergonomics.
	05.09	Demonstrate the procedure for properly identifying patients.
	05.10	Demonstrate procedures for the safe transport and transfer of patients.
	05.11	Describe fire, safety, disaster, and evacuations procedures.
	05.12	Discuss The Joint commission patient safety goals and any other applicable accrediting/regulatory agency guidelines.
06.0	Recognize and respond to emergency situations. – The student will be able to:	
	06.01	Record and monitor vital signs.
	06.02	Describe legal parameters relating to the administration of emergency care.
	06.03	Obtain and maintain training or certification on cardiopulmonary resuscitation (CPR), automated external defibrillator (AED), foreign body airway obstruction (FBAO), and first aid.
	06.04	Recognize adverse drug related emergencies and take appropriate first aid action.
07.0	Recognize and practice infection control procedures. – The student will be able to:	
	07.01	Define principles of infection control including standard and transmission based precautions.
	07.02	Demonstrate knowledge of medical asepsis and practice procedures such as hand-washing and isolation.
	07.03	Demonstrate knowledge of surgical asepsis.
	07.04	Describe how to dispose correctly of biohazardous materials according to appropriate government guidelines such as OSHA.
08.0	Demonstrate an understanding of information technology applications in healthcare. – The student will be able to:	
	08.01	Describe technology applications in healthcare.
	08.02	Define terms and demonstrate basic computer skills.

	08.03	Recognize technology applications in healthcare.
	08.04	Interpret information from electronic medical documents.
	08.05	Identify methods of communication to access and distribute data such as fax, e-mail and internet.
09.0	Demonstrate employability skills. – The student will be able to:	
	09.01	Identify personal traits or attitudes desirable in a member of the healthcare team.
	09.02	Exemplify basic professional standards of healthcare workers as they apply to hygiene, dress, language, confidentiality, and behavior (i.e. telephone etiquette, courtesy and self-introductions).
	09.03	Identify documents that may be required when applying for a job.
	09.04	Write an appropriate resume.
	09.05	Conduct a job search.
	09.06	Complete a job application form correctly.
	09.07	Examine levels of education, credentialing requirements including licensure and certification, employment opportunities, workplace environments, and career growth potential.
	09.08	Recognize levels of education, credentialing requirements, employment opportunities, workplace environments, and career growth potential.
	09.09	Identify acceptable work habits.
	09.10	Recognize appropriate affective/professional behavior.
	09.11	Compare careers within the health science career pathways (diagnostic services, therapeutic services, health informatics, support services and biotechnology research and development).
10.0	Demonstrate knowledge of blood borne diseases, including HIV/AIDS. – The student will be able to:	
	10.01	Recognize emerging diseases and disorders.
	10.02	Distinguish between fact and fallacy about the transmission and treatment of diseases caused by blood borne pathogens including Hepatitis B.
	10.03	Identify community resources and services available to the individuals with diseases caused by blood borne pathogens.
	10.04	Identify "at risk" behaviors which promote the spread of diseases caused by blood borne pathogens and the public education necessary to combat the spread of these diseases.
	10.05	Apply infection control techniques designed to prevent the spread of diseases caused by blood borne pathogens to the care of all patients following Centers for Disease Control (CDC) guidelines.
	10.06	Demonstrate knowledge of the legal aspects of HIV/AIDS, including testing.

11.0	Apply basic math and science skills. – The student will be able to:
	11.01 Draw, read, and report on graphs, charts, and tables.
	11.02 Measure time, temperature, distance, capacity, and mass/weight.
	11.03 Make, use and convert using both traditional and metric units.
	11.04 Make estimations and approximations and judge the reasonableness of the result.
	11.05 Convert from regular to 24 hour time.
	11.06 Demonstrate ability to evaluate and draw conclusions.
	11.07 Organize and communicate the results obtained by observation and experimentation.
	11.08 Ask appropriate scientific questions and recognize what is involved in experimental approaches to the solution of such questions.
	11.09 Calculate ratios.

Florida Department of Education
Curriculum Framework

Health Science Core Standards and Benchmarks

Secondary Level

The **Health Science Core** is the first OCP of the majority of secondary health science programs. The two credit core is required as a prerequisite for all programs except for Practical Nursing and Pharmacy Technician and consists of the courses Health Science Anatomy & Physiology (8417100) and Health Science Foundations (8417110). These courses were previously titled Health Science 1 and Health Science 2. Secondary students completing the two required courses will not have to repeat the core in postsecondary. When the recommended sequence is followed, the structure allows students to complete at specified points for employment or remain for advanced training or cross-training. A student who completes the applicable competencies at any occupational completion point may either continue with the training program or exit as an occupational completer.

The course Anatomy and Physiology (2000350) or Anatomy and Physiology Honors (2000360) may be substituted for the course Health Science Anatomy & Physiology (8417100).

The course Health Science Anatomy & Physiology (8417100) is designated as an equally rigorous (EQ) science credit.

Secondary – Career Preparatory	
Program Number	Identified in the program in which the course is associated.
CIP Number	Identified in the program in which the course is associated.
Grade Level	9-12
Standard Length	2 credits
Teacher Certification	Refer to the **Program Structure** section.
CTSO	HOSA: Future Health Professionals
SOC Codes (all applicable)	31-9099 Healthcare Support Workers, All Other

Program Structure

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 health core course structure:

OCP	Course Number	Course Title	Teacher Certification	Length	SOC Code	Level	Graduation Requirement
A	8417100	Health Science Anatomy and Physiology	ANY HEALTH OCCUP G *(See DOE approved list)	1 credit	31-9099	3	EQ
	8417110	Health Science Foundations		1 credit		3	VO

(Graduation Requirement Abbreviations- EQ= Equally Rigorous Science, PA= Practical Arts, EC= Economics, VO= Career and Technical Education)

Academic Alignment Tables

Academic alignment is an ongoing, collaborative effort of professional educators specializing in the fields of science, mathematics, English/language arts, and Career and Technical Education (CTE). This initiative supports CTE programs by improving student performance through the integration of academic content within CTE courses. Career and Technical Education courses that have been aligned to the Next Generation Sunshine State Standards for Science and the Florida Standards for Mathematics and English/Language Arts will show the following data: the quantity of academic standards in the CTE course; the total number of standards contained in the academic course; and the percentage of alignment to the CTE course.

Courses	Anatomy/ Physiology Honors	Astronomy Solar/Galactic Honors	Biology 1	Chemistry 1	Earth-Space Science	Environmental Science	Genetics	Integrated Science	Marine Science 1 Honors	Physical Science	Physics 1
8417100	46/87 53%	6/80 8%	52/83 63%	7/69 10%	26/67 39%	8/70 11%	21/69 30%	34/82 41%	9/66 14%	29/74 39%	6/72 8%
8417110	17/87 20%	16/80 20%	32/83 39%	13/69 19%	28/67 42%	15/70 21%	14/69 20%	28/82 34%	18/66 27%	31/74 42%	12/72 17%

** *Alignment pending review* # *Alignment attempted, but no correlation to academic course*

Courses	Algebra 1	Algebra 2	Geometry	English 1	English 2	English 3	English 4
8417100	21/67 31%	9/75 12%	18/54 33%	14/46 30%	14/45 31%	#	#
8417110	25/67 37%	15/75 20%	18/54 33%	22/46 48%	22/45 49%	25/45 56%	25/45 56%

** *Alignment pending review* # *Alignment attempted, but no correlation to academic course*

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.

Standards 1-27 encompass the Health Science Core:

01.0 Analyze and interpret an overview of the human body, including organization and chemical process.
02.0 Apply correct medical terminology relating to body structure and function within a real-world application.
03.0 Evaluate cells and tissues microscopically and macroscopically and relate their specialized functions.
04.0 Analyze the integumentary system in relation to health and disease.
05.0 Analyze the skeletal system in relation to health and disease.
06.0 Analyze the muscular system in relation to health and disease.
07.0 Analyze the nervous system in relation to health and disease.
08.0 Analyze the endocrine system in relation to health and disease.
09.0 Analyze the cardiovascular/circulatory system in relation to health and disease.
10.0 Analyze the lymphatic and immune systems in relation to health and disease.
11.0 Analyze the respiratory system in relation to health and disease.
12.0 Analyze the digestive system in relation to health and disease.
13.0 Analyze the urinary system in relation to health and disease.

14.0 Analyze the both the male and female reproductive systems in relation to health and disease.
15.0 Identify and explain factors relating to genetics and disease.
16.0 Evaluate and apply the principles of disease transmission and control to real-world scenarios.
17.0 Demonstrate knowledge of the healthcare delivery system and health occupations.
18.0 Demonstrate the ability to communicate and use interpersonal skills effectively.
19.0 Demonstrate legal and ethical responsibilities.
20.0 Demonstrate an understanding of and apply wellness and disease concepts.
21.0 Recognize and practice safety and security procedures.
22.0 Recognize and respond to emergency situations.
23.0 Recognize and practice infection control procedures.
24.0 Demonstrate an understanding of information technology applications in healthcare.
25.0 Demonstrate employability skills.
26.0 Demonstrate knowledge of blood borne diseases, including HIV/AIDS.
27.0 Apply basic math and science skills.

Florida Department of Education
Student Performance Standards

Course Title: **Health Science Anatomy & Physiology**
Course Number: **8417100**
Course Credit: **1**

Course Description:

This course is part of the secondary Health Core consisting of a study of the human body, both structurally and functionally with emphasis on the pathophysiology and transmission of disease. Medical terminology is an integral part of the course.

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental quality, and safety procedures will be an integral part of this course. Students will interact with materials and primary sources of data or with secondary sources of data to observe and understand the natural world. Students will develop an understanding of measurement error, and develop the skills to aggregate, interpret, and present the data and resulting conclusions. Equipment and supplies will be provided to enhance these hands-on experiences for students. A minimum of 20% of classroom time will be dedicated to laboratory experiences.

The following Math Florida Standards (MAFS) must be integrated and applied within the context of the Health Science Anatomy & Physiology (8417100) course. These Florida Standards include MAFS.912.F-IF.2.4, MAFS.912.F-IF.3.7, MAFS.912.S-ID.1.3, MAFS.912.S-ID.1.4, MAFS.912.S-ID.2.5 and MAFS.912.S-ID.2.6.

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

CTE Standards and Benchmarks		FS-M/LA	NGSSS-SCI/HE
01.0	Analyze and interpret an overview of the human body, including organization and chemical process. – The student will be able to:		
01.01	Evaluate interrelationships of the basic structural and functional organization of the human body including chemical, cellular, tissue and organ systems.	LAFS.910.L.3.4 LAFS.910.L.3.6 LAFS.910.RI.2.4	SC.912.L.14.1
01.02	Describe the basic molecular structures and primary functions of the four major categories of biological macromolecules.		SC.912.L.18.1
01.03	Examine medical implications of body planes, directional terms, cavities, abdominal regions, and quadrants.	LAFS.910.L.3.4 LAFS.910.L.3.6 LAFS.910.RI.2.4	

CTE Standards and Benchmarks		FS-M/LA	NGSSS-SCI/HE
	01.04 Discuss the chemical processes that maintain life, including homeostasis, cellular respiration, the role of enzymes as catalysts and the basic concepts of metabolism.	LAFS.910.L.3.4 LAFS.910.L.3.6 LAFS.910.RI.2.4	SC.912.L.18.8 SC.912.L.18.10 SC.912.L.18.12 SC.912.L.18.11
02.0	Apply correct medical terminology relating to body structure and function within a real-world application. – The student will be able to:		
	02.01 Evaluate and apply anatomical terminology to describe location of parts or areas of the body and to describe the relation of one part to another.	LAFS.910.L.3.4 LAFS.910.L.3.6 LAFS.910.SL.1.1	
	02.02 Interpret correct medical terminology including roots, prefixes and suffixes to indicate anatomical structures and function.	LAFS.910.L.3.4 LAFS.910.L.3.6 LAFS.910.SL.1.1	
	02.03 Extend medical terminology to real-world applications.	LAFS.910.L.3.4 LAFS.910.L.3.6 LAFS.910.SL.1.1	
03.0	Evaluate cells and tissues microscopically and macroscopically and relate their specialized functions. – The student will be able to:		
	03.01 Discuss and describe cell structure and function in healthy tissue.	LAFS.910.W.1.2 LAFS.910.SL.1.1 LAFS.910.SL.2.5	SC.912.L.14.1 SC.912.L.14.2 SC.912.L.14.3 SC.912.L.16.14 SC.912.L.18.8 SC.912.L.18.10
	03.02 Discuss and describe cell structure and function in diseased tissue including how damage to one tissue may impact the function of another tissue.	LAFS.910.W.1.2 LAFS.910.SL.1.1 LAFS.910.SL.2.5	SC.912.L.14.1 SC.912.N.1.1
	03.03 Compare and contrast the four main types of tissue including the interrelationships of tissues.		SC.912.L.14.11 SC.912.L.14.12
	03.04 Discuss the location and function of tissues as it relates to homeostasis.	LAFS.910.W.1.2 LAFS.910.SL.1.1 LAFS.910.SL.2.5 MAFS.912.N-Q.1.3 MAFS.912.N-Q.1.1 MAFS.912.S-ID.1.1	SC.912.L.18.8 SC.912.L.1810

CTE Standards and Benchmarks		FS-M/LA	NGSSS-SCI/HE
04.0	Analyze the integumentary system in relation to health and disease. – The student will be able to:		
04.01	Apply medical terminology as related to the integumentary system.		
04.02	Discuss and describe the structure and function of the integumentary system across the lifespan.	LAFS.910.L.3.6 LAFS.910.SL.2.4	SC.912.L.14.51
04.03	Demonstrate knowledge of cells and tissues in the integumentary system.		
04.04	Identify and analyze common diseases and disorders of the integumentary system including etiology, prevention, pathology, diagnosis and treatment/rehabilitation.	LAFS.910.L.3.6 LAFS.910.SL.2.4 LAFS.910.W.3.8	SC.912.N.1.1
04.05	Discuss or research health careers related to the integumentary system.	LAFS.910.RI.1.1 LAFS.910.W.3.8 MAFS.912.G-GMD.2.4	
04.06	Demonstrate knowledge of skills related to the integumentary system which may include infection control and hand washing skills.		HE.912.C.1.5
05.0	Analyze the skeletal system in relation to health and disease. – The student will be able to:		
05.01	Apply medical terminology as related to the skeletal system.		SC.912.L.14.13 SC.912.L.14.14
05.02	Discuss and describe the structure and function of the skeletal system across the lifespan.	LAFS.910.L.3.6 LAFS.910.SL.2.4	SC.912.L.14.13 SC.912.L.14.14
05.03	Identify and explain major bone markings and their implications.		SC.912.L.14.15
05.04	Identify and explain joints and their implications.		SC.912.L.14.13 SC.912.L.14.14
05.05	Discuss the interrelationship between calcium, hormones, and the skeletal system.		
05.06	Apply knowledge of cells and tissues in the skeletal system.		SC.912.L.14.12
05.07	Identify and analyze common diseases and disorders of the skeletal system including etiology, prevention, pathology, diagnosis and treatment/rehabilitation.	LAFS.910.L.3.6 LAFS.910.SL.2.4 LAFS.910.W.3.8	SC.912.N.1.1
05.08	Discuss or research health careers related to the skeletal system.	LAFS.910.RI.1.1 LAFS.910.W.3.8 MAFS.912.G-GMD.2.4	
05.09	Demonstrate knowledge of skills related to the skeletal system which may include range of motion.		

CTE Standards and Benchmarks		FS-M/LA	NGSSS-SCI/HE
06.0	Analyze the muscular system in relation to health and disease. – The student will be able to:		
06.01	Apply medical terminology as related to the muscular system.		
06.02	Discuss and describe the structure and function of the muscular system across the lifespan.	LAFS.910.L.3.6 LAFS.910.SL.2.4	SC.912.L.14.20
06.03	Identify and explain the 3 main types of muscles and their implications.		SC.912.L.14.20
06.04	Interpret muscle function by examining attachment to bone.		SC.912.L.14.19
06.05	Discuss the interrelationship between calcium, ions, and the muscular system.		
06.06	Apply knowledge of cells and tissues in the muscular system.		SC.912.L.14.16
06.07	List the steps involved in the sliding filament of muscle contraction.		SC.912.L.14.17
06.08	Describe signal transmission across a myoneural/neuromuscular junction.		SC.912.L.14.18
06.09	Identify and analyze common diseases and disorders of the muscular system including etiology, prevention, pathology, diagnosis and treatment/rehabilitation.	LAFS.910.L.3.6 LAFS.910.SL.2.4 LAFS.910.W.3.8	SC.912.N.1.1
06.10	Discuss or research health careers related to the muscular system.	LAFS.910.RI.1.1 LAFS.910.W.3.8 MAFS.912.G-GMD.2.4	
06.11	Demonstrate knowledge of skills related to the muscular system which may include isometric and isotonic contractions.		
07.0	Analyze the nervous system in relation to health and disease. – The student will be able to:		
07.01	Apply medical terminology as related to the nervous system.		
07.02	Discuss and describe the structure and function of the nervous system across the lifespan.	LAFS.910.L.3.6 LAFS.910.SL.2.4	SC.912.L.14.21 SC.912.L.14.24 SC.912.L.14.25 SC.912.L.14.26 SC.912.L.14.27 SC.912.L.14.28 SC.912.L.14.50
07.03	Identify and explain the interrelatedness of the Central Nervous System (CNS) and Peripheral Nervous System (PNS).		SC.912.L.14.21 SC.912.L.14.24

CTE Standards and Benchmarks		FS-M/LA	NGSSS-SCI/HE
			SC.912.L.14.25 SC.912.L.14.26 SC.912.L.14.27 SC.912.L.14.28
07.04	Compare and contrast the divisions of the Autonomic Nervous System (ANS).		SC.912.L.14.21 SC.912.L.14.49
07.05	Apply knowledge of cells and tissues in the nervous system.		SC.912.L.14.24
07.06	Explain how neurotransmitters help propagate electrical impulses.	LAFS.910.L.3.4 LAFS.910.W.3.7	
07.07	Describe reflex pathways and their importance.	LAFS.910.SL.1.1 MAFS.912.N-Q.1.1 MAFS.912.N-Q.1.3 MAFS.912.S-ID.1.2 MAFS.912.S-IC.2.6	SC.912.L.14.23
07.08	Identify and analyze common diseases and disorders of the nervous system including etiology, prevention, pathology, diagnosis and treatment/rehabilitation.	LAFS.910.L.3.6 LAFS.910.SL.2.4 LAFS.910.W.3.8	SC.912.N.1.1
07.09	Discuss or research health careers related to the nervous system.	LAFS.910.RI.1.1 LAFS.910.W.3.8 MAFS.912.G-GMD.2.4	
07.10	Demonstrate knowledge of skills related to the nervous system which may include recognizing signs and symptoms of a stroke.		
08.0	Analyze the endocrine system in relation to health and disease. – The student will be able to:		
08.01	Apply medical terminology as related to the endocrine system.		
08.02	Discuss and describe the structure and function of the endocrine system across the lifespan.	LAFS.910.L.3.6 LAFS.910.SL.2.4	SC.912.L.14.29 SC.912.L.14.30 SC.912.L.14.32
08.03	Compare and contrast endocrine and exocrine glands.		SC.912.L.14.29
08.04	Compare and contrast negative and positive feedback loops.		SC.912.L.14.30
08.05	Evaluate the relationship between the endocrine system and homeostasis in health and disease.		SC.912.L.14.30
08.06	Apply knowledge of cells and tissues in the endocrine system.		
08.07	Identify and analyze common diseases and disorders of the endocrine system	LAFS.910.L.3.6	SC.912.N.1.1

CTE Standards and Benchmarks			FS-M/LA	NGSSS-SCI/HE
		including etiology, prevention, pathology, diagnosis and treatment/rehabilitation.	LAFS.910.SL.2.4 LAFS.910.W.3.8	
	08.08	Discuss or research health careers related to the endocrine system.	LAFS.910.RI.1.1 LAFS.910.W.3.8 MAFS.912.G-GMD.2.4	
	08.09	Demonstrate knowledge of skills related to the endocrine system which may include recognizing the signs and symptoms of low blood sugar.		
09.0		Analyze the cardiovascular/circulatory system in relation to health and disease. – The student will be able to:	MAFS.912.S-ID.1.3 MAFS.912.F-IF.2.4	
	09.01	Apply medical terminology as related to the cardiovascular system.		
	09.02	Discuss and describe the structure and function of the cardiovascular system across the lifespan.	LAFS.910.L.3.6 LAFS.910.SL.2.4	SC.912.L.14.41
	09.03	Demonstrate knowledge of major blood vessels.		SC.912.L.14.36
	09.04	Compare and contrast the structure and function of arteries, veins, and capillaries.		SC.912.L.14.35 SC.912.L.14.36
	09.05	Analyze the interdependence between systemic and pulmonary circulation.		SC.912.L.14.36
	09.06	Design a map or flow chart depicting the normal pathway of blood flow through the heart.		SC.912.L.14.36
	09.07	Design a map or flow chart depicting the normal electrical pathway through the heart.		SC.912.L.14.38
	09.08	Apply knowledge of cells and tissues in the cardiovascular system.		
	09.09	Demonstrate knowledge of the composition of blood to include formed elements and plasma.		SC.912.L.14.34
	09.10	Evaluate ABO blood types and Rh factor.		SC.912.L.14.34
	09.11	Predict potential blood donors for a transfusion through the analysis of blood types with ABO and/or Rh compatibility.		SC.912.L.14.34
	09.12	Identify and analyze common diseases and disorders of the cardiovascular system including etiology, prevention, pathology, diagnosis and treatment/rehabilitation.	LAFS.910.L.3.6 LAFS.910.SL.2.4 LAFS.910.W.3.8	SC.912.L.14.39 SC.912.N.1.1
	09.13	Discuss or research health careers related to the cardiovascular system.	LAFS.910.RI.1.1 LAFS.910.W.3.8 MAFS.912.G-GMD.2.4	
	09.14	Demonstrate knowledge of skills related to the cardiovascular system which might include assessing pulse.		SC.912.L.14.38

CTE Standards and Benchmarks		FS-M/LA	NGSSS-SCI/HE
10.0	Analyze the lymphatic and immune systems in relation to health and disease. – The student will be able to:		
10.01	Apply medical terminology as related to the lymphatic and immune systems.		
10.02	Discuss and describe the structure and function of the lymphatic and immune systems across the lifespan.	LAFS.910.L.3.6 LAFS.910.SL.2.4	SC.912.L.14.42 SC.912.L.14.52
10.03	Validate the importance of the accessory organs (thymus, tonsils, spleen, appendix, Peyer's patch) promoting the effectiveness of the lymphatic and immune system.		SC.912.L.14.52
10.04	Compare and contrast passive and active immunity.		
10.05	Discuss the impact of B cells and T cells on diseases of the immune system.		
10.06	Evaluate and discuss the body's defense mechanisms in relation to common communicable diseases.	LAFS.910.SL.2.4 LAFS.910.SL.2.6	SC.912.L.16.7
10.07	Apply knowledge of cells and tissues in the lymphatic and immune systems.		SC.912.L.14.42 SC.912.L.14.52
10.08	Identify and analyze common diseases and disorders of the lymphatic and immune system including etiology, prevention, pathology, diagnosis, and treatment/rehabilitation.	LAFS.910.L.3.6 LAFS.910.SL.2.4 LAFS.910.W.3.8	SC.912.N.1.1
10.09	Discuss or research health careers related to the lymphatic and immune systems.	LAFS.910.RI.1.1 LAFS.910.W.3.8 MAFS.912.G-GMD.2.4	
10.10	Demonstrate knowledge of skills related to the lymphatic and immune systems.		
11.0	Analyze the respiratory system in relation to health and disease. – The student will be able to:		
11.01	Apply medical terminology as related to the respiratory system.		
11.02	Discuss and describe the structure and function of the respiratory system across the lifespan.	LAFS.910.L.3.6 LAFS.910.SL.2.4	SC.912.L.14.44
11.03	Evaluate the interrelatedness of the cardiovascular and respiratory systems.		
11.04	Apply knowledge of cells and tissues in the respiratory system.		SC.912.L.14.43
11.05	Identify and analyze common diseases and disorders of the respiratory system including etiology, prevention, pathology, diagnosis and treatment/rehabilitation.	LAFS.910.L.3.6 LAFS.910.SL.2.4 LAFS.910.W.3.8	SC.912.N.1.1
11.06	Discuss or research health careers related to the respiratory system.	LAFS.910.RI.1.1	

CTE Standards and Benchmarks		FS-M/LA	NGSSS-SCI/HE
		LAFS.910.W.3.8 MAFS.912.G-GMD.2.4	
	11.07 Demonstrate knowledge of skills related to the respiratory system which might include monitoring respirations.		
12.0	Analyze the digestive system in relation to health and disease. – The student will be able to:		
	12.01 Apply medical terminology as related to the digestive system.		
	12.02 Discuss and describe the structure and function of the digestive system across the lifespan.	LAFS.910.L.3.6 LAFS.910.SL.2.4	SC.912.L.14.46
	12.03 Apply knowledge of cells and tissues in the digestive system.		SC.912.L.14.45
	12.04 Identify and analyze common diseases and disorders of the digestive system including etiology, prevention, pathology, diagnosis and treatment/rehabilitation.	LAFS.910.L.3.6 LAFS.910.SL.2.4 LAFS.910.W.3.8	
	12.05 Discuss or research health careers related to the digestive system.	LAFS.910.RI.1.1 LAFS.910.W.3.8 MAFS.912.G-GMD.2.4	
	12.06 Demonstrate knowledge of skills related to the digestive system which might include a nutritional self-assessment.		
13.0	Analyze the urinary system in relation to health and disease. – The student will be able to:		
	13.01 Apply medical terminology as related to the urinary system.		
	13.02 Discuss and describe the structure and function of the urinary system across the lifespan.	LAFS.910.L.3.6 LAFS.910.SL.2.4	SC.912.L.14.47 SC.912.L.14.48
	13.03 Justify the interrelatedness of the urinary and cardiovascular system in promoting homeostasis.		
	13.04 Apply knowledge of cells and tissues in the urinary system.		
	13.05 Identify and analyze common diseases and disorders of the urinary system including etiology, prevention, pathology, diagnosis and treatment/rehabilitation.	LAFS.910.L.3.6 LAFS.910.SL.2.4 LAFS.910.W.3.8	SC.912.N.1.1
	13.06 Discuss or research health careers related to the urinary system.	LAFS.910.RI.1.1 LAFS.910.W.3.8 MAFS.912.G-GMD.2.4	
	13.07 Demonstrate knowledge of skills related to the urinary system which may include measuring Intake and Output.		

CTE Standards and Benchmarks		FS-M/LA	NGSSS-SCI/HE
14.0	Analyze the both the male and female reproductive systems in relation to health and disease. – The student will be able to:		
14.01	Apply medical terminology as related to the each of the male and female reproductive systems.		SC.912.L.14.33
14.02	Discuss and describe the structure and function of both reproductive systems across the lifespan.	LAFS.910.L.3.6 LAFS.910.SL.2.4	SC.912.L.14.33 SC.912.L.16.13
14.03	Apply knowledge of cells and tissues of both reproductive systems.		SC.912.L.14.33
14.04	Identify and analyze common diseases and disorders of both reproductive systems including etiology, prevention, pathology, diagnosis and treatment/rehabilitation.	LAFS.910.L.3.6 LAFS.910.SL.2.4 LAFS.910.W.3.8	SC.912.N.1.1
14.05	Discuss or research health careers related to both reproductive systems.	LAFS.910.RI.1.1 LAFS.910.W.3.8 MAFS.912.G-GMD.2.4	
14.06	Demonstrate knowledge of skills related to the reproductive system which may include measuring fetal development and relating it to possible complications.		
15.0	Identify and explain factors relating to genetics and disease. – The student will be able to:	MAFS.912.F-IF.3.7 MAFS.912.S-ID.1.3	
15.01	Analyze DNA and its role in human heredity.	LAFS.910.RI.1.2	SC.912.L.15.14 SC.912.L.16.2 SC.912.L.16.3 SC.912.L.16.5 SC.912.L.16.9 SC.912.N.1.2 HE.912.C.18
15.02	Describe the role of human genetics in relation to genetic diseases.	LAFS.910.RI.1.2	SC.912.N.1.1 HE.912.C.1.7
15.03	Discuss or research current issues related to genetic research.	LAFS.910.RI.1.2 LAFS.910.SL.1.2	SC.912.L.16.10 SC.912.N.1.2
15.04	Explore the relationship between mutation, cell cycle and uncontrolled cell growth that can result in cancer.		SC.912.L.15.14 SC.912.L.15.15 SC.912.L.16.4 SC.912.L.16.8 SC.912.L.16.14
15.05	Explore how environmental factors contribute to an individual's overall wellness and quality of life.		SC.912.L.14.6 SC.912.L.15.14

CTE Standards and Benchmarks	FS-M/LA	NGSSS-SCI/HE
		HE.912.C.1.3
16.0 Evaluate and apply the principles of disease transmission and control to real-world scenarios. – The student will be able to:	MAFS.912.S-ID.1.4 MAFS.912.S-ID.2.5 MAFS.912.S-ID.2.6	SC.912.L.14.6 SC.912.L.14.30 SC.912.L.14.32 SC.912.L.14.34 SC.912.L.14.35 SC.912.L.14.44 SC.912.L.14.46 SC.912.L.14.49 SC.912.L.14.52 SC.912.L.15.14 SC.912.L.15.15 SC.912.L.16.2 SC.912.L.16.3 SC.912.L.16.4 SC.912.L.16.5 SC.912.L.16.7 SC.912.L.16.8 SC.912.L.16.9 SC.912.L.16.10 SC.912.L.16.14
16.01 Discuss and explain the direct and indirect transmission of disease.	LAFS.910.L.3.5b LAFS.910.L.3.6	
16.02 Discuss and apply the principles of the chain of infection to real-world scenarios.	LAFS.910.SL.2.4 LAFS.910.SL.2.6	
16.03 Categorize the common microorganisms affecting the human body.		
16.04 Identify and analyze common diseases caused by microorganisms.		

Florida Department of Education
Student Performance Standards

Course Title: **Health Science Foundations**
Course Number: **8417110**
Course Credit: **1**

Course Description:

This course is part of the Secondary Health Core designed to provide the student with an in depth knowledge of the health care system and associated occupations. Emphasis is placed on communication and interpersonal skills, use of technology, ethics and the development of critical thinking and problem solving skills. Students will also learn first aid skills and demonstrate the measurement of vital signs. Students may shadow professionals throughout the course.

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

CTE Standards and Benchmarks		FS-M/LA	NGSSS-Sci
17.0	Demonstrate knowledge of the health care delivery system and health occupations. – The student will be able to:		SC.912.L.16.10
17.01	Identify the basic components of the health care delivery system including public, private, government and non-profit.	LAFS.910.RI.1.1 LAFS.910.RI.1.2 LAFS.1112.RI.1.1 LAFS.1112.RI.1.2 LAFS.1112.RI.1.3	
17.02	Identify common methods of payment for healthcare services.	LAFS.910.RI.1.1 LAFS.910.RI.1.2 LAFS.1112.RI.1.1 LAFS.1112.RI.1.2 LAFS.1112.RI.1.3	
17.03	Describe the various types of healthcare providers and the range of services available including resources to victims of domestic violence.	LAFS.910.W.1.2 LAFS.910.SL.1.2 LAFS.910.SL.2.4 LAFS.910.SL.2.6 LAFS.1112.SL.1.2 LAFS.1112.SL.2.4	

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
	LAFS.1112.SL.2.6 LAFS.1112.W.1.2 LAFS.1112.W.3.7 LAFS.1112.RI.1.3	
17.04 Describe the composition and functions of a healthcare team.	LAFS.910.W.1.2 LAFS.910.W.3.7 LAFS.1112.RI.1.1 LAFS.1112.W.1.2 LAFS.1112.W.3.7	
17.05 Identify the general roles and responsibilities of the individual members of the healthcare team.	LAFS.910.W.1.2 LAFS.910.W.3.7 LAFS.1112.W.3.7 LAFS.1112.W.1.2 LAFS.1112.RI.1.3 LAFS.1112.RI.1.1	
17.06 Identify the roles and responsibilities of the consumer within the healthcare delivery system.	LAFS.910.W.1.2 LAFS.910.W.3.7 LAFS.1112.W.1.2 LAFS.1112.W.3.7 LAFS.1112.RI.1.1 LAFS.1112.RI.1.3	
17.07 Identify characteristics of effective teams.	LAFS.910.W.1.2 LAFS.910.W.3.7 LAFS.1112.W.1.2 LAFS.1112.W.3.7 LAFS.1112.RI.1.1 LAFS.1112.RI.1.3	
17.08 Recognize methods for building positive team relationships.	LAFS.910.SL.1.1 LAFS.910.SL.1.2 LAFS.1112.SL.1.1 LAFS.1112.SL.1.2 LAFS.1112.RI.1.1	
17.09 Analyze attributes and attitudes of an effective leader.	LAFS.910.RI.1.2 LAFS.1112.RI.1.1 LAFS.1112.RI.1.2 LAFS.1112.RI.1.3	
17.10 Recognize factors and situations that may lead to conflict.	LAFS.910.SL.1.1 LAFS.910.SL.1.2	

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
	LAFS.910.SL.1.3 LAFS.1112.SL.1.1 LAFS.1112.SL.1.2 LAFS.1112.SL.1.3 LAFS.1112.RI.1.1 LAFS.1112.RI.1.3	
17.11 Demonstrate effective techniques for managing team conflict.	LAFS.910.SL.1.1 LAFS.910.SL.1.2 LAFS.910.SL.1.3 LAFS.1112.SL.1.1 LAFS.1112.SL.1.2 LAFS.1112.SL.1.3 LAFS.1112.SL.2.4 LAFS.1112.RI.1.1 LAFS.1112.RI.1.3	
17.12 Describe factors that influence the current delivery system of healthcare.	LAFS.910.RI.2.4 LAFS.910.SL.2.4 LAFS.1112.RI.1.1 LAFS.1112.RI.2.4 LAFS.1112.SL.2.4	
17.13 Explain the impact of emerging issues including technology, epidemiology, bioethics, and socioeconomics on healthcare delivery systems.	LAFS.910.W.2.5 LAFS.910.W.3.8 LAFS.1112.W.2.5 LAFS.1112.W.3.8 LAFS.1112.RI.1.1 LAFS.1112.SL.1.3 LAFS.1112.SL.2.4	
18.0 Demonstrate the ability to communicate and use interpersonal skills effectively. – The student will be able to:		SC.912.N.1.1
18.01 Develop basic speaking and active listening skills.	LAFS.910.SL.1.1 LAFS.910.SL.2.4 LAFS.910.SL.2.6 LAFS.1112.SL.1.1 LAFS.1112.SL.2.4 LAFS.1112.SL.2.6 LAFS.1112.L.1.1	
18.02 Develop basic observational skills and related documentation strategies in written and oral form.	LAFS.910.SL.2.4 LAFS.910.RI.3.7	

CTE Standards and Benchmarks	FS-M/LA	NGSSS-Sci
	LAFS.910.W.3.9 LAFS.910.W.2.4 LAFS.910.SL.2.4 LAFS.910.SL.2.6 LAFS.1112.SL1.1 LAFS.1112.SL.2.4 LAFS.1112.RI.3.7 LAFS.1112.W.3.9 LAFS.1112.W.2.4 LAFS.1112.L.1.1	
18.03 Identify characteristics of successful and unsuccessful communication including communication styles and barriers.	LAFS.910.SL.1.1 LAFS.910.SL.1.2 LAFS.910.SL.1.3 LAFS.1112.SL.1.1 LAFS.1112.SL.1.2 LAFS.1112.SL.1.3 LAFS.1112.L.1.1	
18.04 Respond to verbal and non-verbal cues.	LAFS.910.SL.1.1 LAFS.1112.SL.1.1 LAFS.1112.SL.1.3 LAFS.1112.L.1.1	
18.05 Compose written communication using correct spelling, grammar, a formatting and confidentiality and specific formats of letter writing.	LAFS.910.L.1.1 LAFS.910.L.1.2 LAFS.910.W.2.4 LAFS.1112.L.1.1 LAFS.1112.L.1.2 LAFS.1112.W.2.4 LAFS.1112.SL.1.1	
18.06 Use appropriate medical terminology and abbreviations.	LAFS.910.L.3.6 LAFS.1112.L.3.6	
18.07 Recognize the importance of courtesy and respect for patients and other healthcare workers and maintain good interpersonal relationships.	LAFS1112.SL.1.1 LAFS.1112.SL.1.3 LAFS.1112.L.1.1	
18.08 Recognize the importance of patient/client education regarding healthcare.	LAFS.1112.L.1.1 LAFS.1112.SL.1.1 LAFS.1112.SL.1.3	
18.09 Adapt communication skills to varied levels of understanding and cultural orientation including diverse age, cultural, economic, ethnic and religious	LAFS.910.SL.2.6 LAFS.1112.SL.2.6	

CTE Standards and Benchmarks		FS-M/LA	NGSSS-Sci
	groups.	LAFS.1112.W.2.5	
18.10	Analyze elements of communication using a sender-receiver model.	LAFS.910.SL.1.1d LAFS.1112.SL.1.1d LAFS.1112.W.2.5 LAFS.1112.RI.1.1	
18.11	Distinguish between and report subjective and objective information.	LAFS.1112.RI.1.1 LAFS.1112.SL.1.1d LAFS.1112.SL.2.4	
18.12	Report relevant information in order of occurrence.	LAFS.910.W.1.2d LAFS.910.SL.2.4 LAFS.1112.W.1.2d LAFS.1112.SL.2.4 LAFS.1112.RI.1.3	
19.0	Demonstrate legal and ethical responsibilities. – The student will be able to:		SC.912.L.16.10 SC.912.N.1.1
19.01	Discuss the legal framework of the healthcare occupations including scope of practice legislation.	LAFS.910.SL.1.1a,b LAFS.910.SL.1.2 LAFS.1112.SL.1.1a,b,d LAFS.1112.SL.1.2 LAFS.1112.W.3.9b	
19.02	Explain practices that could result in malpractice, liability, negligence, abandonment, false imprisonment, and fraud.	LAFS.910.SL.1.1a,b LAFS.910.SL.1.2 LAFS.1112.SL.1.1a,b LAFS.1112.SL.1.2 LAFS.1112.W.3.9b	
19.03	Demonstrate procedures for accurate documentation and record keeping.	LAFS.1112.W.2.6	
19.04	Interpret healthcare facility policy and procedures.	LAFS.910.RI.1.2 LAFS.1112.RI.1.2 LAFS.1112.RI.3.8	
19.05	Explain the “Patient’s Bill of Rights”.	LAFS.910.RI.1.2 LAFS.910.SL.1.1a LAFS.1112.RI.1.2 LAFS.1112.RI.3.8 LAFS.1112.SL.1.1a LAFS.1112.SL.2.4	
19.06	Identify standards of the Health insurance Portability and Accountability Act (HIPAA).	LAFS.910.RI.1.2 LAFS.1112.RI.1.1 LAFS.1112.RI.1.2	

CTE Standards and Benchmarks		FS-M/LA	NGSSS-Sci
19.07	Describe advance directives.	LAFS.910.W.1.2d LAFS.1112.W.1.2d LAFS.11112.RI.1.1 LAFS.1112.L.3.6	
19.08	Describe informed consent.	LAFS.910.W.1.2d LAFS.1112.W.1.2d LAFS.1112.RI.1.1 LAFS.1112.L.3.6	
19.09	Explain the laws governing harassment, labor and employment.	LAFS.910.RI.1.2 LAFS.910.SL.1.1a LAFS.1112.RI.1.1 LAFS.1112.RI.1.2 LAFS.1112.SL.1.1a LAFS.1112.SL.1.2	
19.10	Differentiate between legal and ethical issues in healthcare.	LAFS.910.RI.3.8 LAFS.1112.SL.1.2 LAFS.1112.RI.3.8	
19.11	Describe a code of ethics consistent with the healthcare occupation.	LAFS.910.W.1.2d LAFS.1112.RI.1.2 LAFS.1112.W.1.2d	
19.12	Identify and compare personal, professional, and organizational ethics.	LAFS.1112.RI.1.3	
19.13	Recognize the limits of authority and responsibility of health care workers including legislated scope of practice.	LAFS.1112.RI.1.1	
19.14	Recognize and report illegal and/or unethical practices of healthcare workers.	LAFS.1112.RI.1.1 LAFS.1112.W.2.4 LAFS.1112.SL.2.4	
19.15	Recognize and report abuse including domestic violence and neglect.	LAFS.1112.RI.1.1 LAFS.1112.W.2.4 LAFS.1112.SL.2.4	
19.16	Distinguish among the five schedules of controlled substances.	LAFS.910.RI.1.2 LAFS.1112.RI.1.2	
20.0	Demonstrate an understanding of and apply wellness and disease concepts. – The student will be able to:		SC.912.L.14.46 SC.912.L.14.52 SC.912.L.18.3 SC.912.L.18.4 SC.912.N.2.2 SC.912.N.2.3 SC.912.N.4.2

CTE Standards and Benchmarks		FS-M/LA	NGSSS-Sci
20.01	Describe strategies for prevention of diseases including health screenings and examinations.	LAFS.910.W.1.3 LAFS.910.SL.2.4 LAFS.910.SL.2.5 LAFS.910.SL.2.6 LAFS.1112.W.1.3 LAFS.1112.SL.2.4 LAFS.1112.SL.2.5 LAFS.1112.RI.1.1	
20.02	Identify personal health practices and environmental factors which affect optimal function of each of the major body systems.	LAFS.910.RI.1.2 LAFS.910.RI.2.4 LAFS.1112.RI.1.2 LAFS.1112.RI.2.4 LAFS.1112.RI.3.7 LAFS.1112.SL.1.2	
20.03	Identify psychological reactions to illness including defense mechanisms.	LAFS.910.RI.1.2 LAFS.910.RI.2.4 LAFS.1112.RI.1.2 LAFS.1112.RI.2.4 LAFS.1112.RI.3.7 LAFS.1112.SL.1.2	
20.04	Identify complementary and alternative health practices.	LAFS.910.RI.1.2 LAFS.910.RI.2.4 LAFS.1112.RI.1.2 LAFS.1112.RI.2.4 LAFS.1112.RI.3.7 LAFS.1112.SL.1.2	
20.05	Discuss the adverse effects of the use of alcohol, tobacco, and both legal and illegal drugs on the human body and apply safety practices related to these and other high risk behaviors.	LAFS.1112.SL.1.1c	
20.06	Explain the basic concepts of positive self-image, wellness and stress.	LAFS.1112.SL.1.1c	
20.07	Develop a wellness and stress control plan that can be used in personal and professional life.	LAFS.1112.W.1.2 LAFS.1112.W.2.4	
20.08	Explore and utilize the U.S. Department of Agriculture's nutrition resources.	LAFS.1112.RI.3.8	
20.09	Recognize the steps in the grief process.		
21.0	Recognize and practice safety and security procedures. – The student will be able to:		SC.912.N.1.1 SC.912.N.1.6
21.01	Recognize safe and unsafe working conditions and report safety hazards.	LAFS.1112.W.4.10	
21.02	Demonstrate the safe use of medical equipment.	LAFS.1112.SL.1.1	

CTE Standards and Benchmarks		FS-M/LA	NGSSS-Sci
	21.03 Explain and apply the theory of root- cause analysis.	LAFS.1112.SL.2.6	
	21.04 Identify and describe methods in medical error reduction and prevention in the various healthcare settings.	LAFS.1112.RI.1.1	
	21.05 Identify and practice security procedures for medical supplies and equipment.	LAFS.1112.RI.3.8	
	21.06 Demonstrate personal safety procedures based on Occupations Safety and Health Administration (OSHA) and Centers for Disease Control (CDC) regulations including standard precautions.	LAFS.1112.SL.2.4	
	21.07 Recognize Safety Data Sheets and comply with safety signs, symbols, and labels.	LAFS.1112.RI.3.7	
	21.08 Demonstrate proper body mechanics and ergonomics.	LAFS.1112.SL.2.4	
	21.09 Demonstrate the procedure for properly identifying patients.	LAFS.1112.SL.2.4	
	21.10 Demonstrate procedures for the safe transport and transfer of patients.	LAFS.1112.SL.2.4	
	21.11 Describe fire, safety, disaster and evacuations procedures.	LAFS.1112.L.1.1 LAFS.1112.RI.1.1	
	21.12 Discuss The Joint commission patient safety goals and any other applicable accrediting/regulatory agency guidelines.	LAFS.1112.RI.3.7	
22.0	Recognize and respond to emergency situations. – The student will be able to:		SC.912.N.1.1
	22.01 Record and monitor vital signs.	MAFS.912.N-Q.1.1 MAFS.912-N-Q.1.2 MAFS.912.N-Q.1.3 MAFS.912.S-ID.1.1 MAFS.912.S-IC.2.6	
	22.02 Describe legal parameters relating to the administration of emergency care.	LAFS.1112.L.1.1 LAFS.1112.RI.3.8	
	22.03 Obtain and maintain training or certification on cardiopulmonary resuscitation (CPR), automated external defibrillator (AED), foreign body airway obstruction (FBAO), and first aid.	LAFS.1112.RI.1.1 LAFS.1112.RI.3.7 LAFS.1112.L.3.6 LAFS.1112.SL.1.2	
	22.04 Recognize adverse drug related emergencies and take appropriate first aid action.		
23.0	Recognize and practice infection control procedures. – The student will be able to:		SC.912.L.14.6 SC.912.L.14.52 SC.912.L.17.6 SC.912.L.17.14 SC.912.L.17.16
	23.01 Define principles of infection control including standard and transmission based precautions.	LAFS.1112.L.3.4a, c	
	23.02 Demonstrate knowledge of medical asepsis and practice procedures such as	LAFS.1112.L.3.4d	

CTE Standards and Benchmarks		FS-M/LA	NGSSS-Sci
	hand-washing and isolation.	LAFS.1112.SL.2.4	
23.03	Demonstrate knowledge of surgical asepsis.	LAFS.1112.L.3.4d LAFS.1112.SL.2.4	
23.04	Describe how to dispose correctly of biohazardous materials according to appropriate government guidelines such as OSHA.	LAFS.1112.RI.3.8 LAFS.1112.SL.2.4	
24.0	Demonstrate an understanding of information technology applications in healthcare. – The student will be able to:		SC.912.N.1.1
24.01	Describe technology applications in healthcare.	LAFS.1112.SL.1.2	
24.02	Define terms and demonstrate basic computer skills.	LAFS.1112.L.3.6	
24.03	Recognize technology applications in healthcare.		
24.04	Interpret information from electronic medical documents.	LAFS.1112.SL.2.5 MAFS.912.S-IC.2.6	
24.05	Identify methods of communication to access and distribute data such as fax, e-mail, and internet.		
25.0	Demonstrate employability skills. – The student will be able to:		
25.01	Identify personal traits or attitudes desirable in a member of the healthcare team.		
25.02	Exemplify basic professional standards of healthcare workers as they apply to hygiene, dress, language, confidentiality and behavior (i.e. telephone etiquette, courtesy, and self-introductions).	LAFS.1112.L.2.3 LAFS.1112.SL.2.6	
25.03	Identify documents that may be required when applying for a job.		
25.04	Write an appropriate resume.	LAFS.1112.W.2.5 LAFS.1112.W.2.6 LAFS.1112.W.3.8	
25.05	Conduct a job search.	LAFS.1112.W.3.8	
25.06	Complete a job application form correctly.	LAFS.1112.W.2.5 LAFS.1112.W.2.6	
25.07	Examine levels of education, credentialing requirements including licensure and certification, employment opportunities, workplace environments, and career growth potential.	LAFS.1112.W.3.9b	
25.08	Recognize levels of education, credentialing requirements, employment opportunities, workplace environments, and career growth potential.	LAFS.1112.W.3.9b	
25.09	Identify acceptable work habits.		
25.10	Recognize appropriate affective/professional behavior.		
25.11	Compare careers within the health science career pathways (diagnostic services, therapeutic services, health informatics, support services and biotechnology research and development).	LAFS.1112.W.3.8	

CTE Standards and Benchmarks		FS-M/LA	NGSSS-Sci
26.0	Demonstrate knowledge of blood borne diseases, including HIV/AIDS. – The student will be able to:		SC.912.L.14.6 SC.912.L.14.52
26.01	Recognize emerging diseases and disorders.	MAFS.912.S-IC.1.1 MAFS.912.S-ID.2.5 MAFS.912.S-ID.3.9	
26.02	Distinguish between fact and fallacy about the transmission and treatment of diseases caused by blood borne pathogens including Hepatitis B.	LAFS.1112.RI.1.2 LAFS.1112.RI.3.7	
26.03	Identify community resources and services available to the individuals with diseases caused by blood borne pathogens.	LAFS.1112.W.3.7	
26.04	Identify "at risk" behaviors which promote the spread of diseases caused by blood borne pathogens and the public education necessary to combat the spread of these diseases.	LAFS.1112.RI.1.1 MAFS.912.S-IC.1.1 MAFS.912.S-IC.2.6	
26.05	Apply infection control techniques designed to prevent the spread of diseases caused by blood borne pathogens to the care of all patients following Centers for Disease Control (CDC) guidelines.	LAFS.1112.RI.3.8	
26.06	Demonstrate knowledge of the legal aspects of HIV/AIDS, including testing.	LAFS.1112.RI.3.8	
27.0	Apply basic math and science skills. – The student will be able to:		SC.912.N.1.1
27.01	Draw, read, and report on graphs, charts and tables.	MAFS.912.S-ID.1.1 MAFS.912.S-ID.2.5 MAFS.912.S-ID.2.6 MAFS.912.S-IC.2.6 MAFS.912.N-Q.1.1 MAFS.912.N-Q.1.2 MAFS.912.N-Q.1.3	
27.02	Measure time, temperature, distance, capacity, and mass/weight.	MAFS.912.N-Q.1.1 MAFS.912.N-Q.1.2 MAFS.912.N-Q.1.3	
27.03	Make, use and convert using both traditional and metric units.	MAFS.912.N-Q.1.1 MAFS.912.N-Q.1.2 MAFS.912.N-Q.1.3	
27.04	Make estimations and approximations and judge the reasonableness of the result.	MAFS.912.N-Q.1.1 MAFS.912.N-Q.1.2 MAFS.912.N-Q.1.3	
27.05	Convert from regular to 24 hour time.	MAFS.912.N-Q.1.1 MAFS.912.N-Q.1.2 MAFS.912.N-Q.1.3	
27.06	Demonstrate ability to evaluate and draw conclusions.	LAFS.1112.W.3.7 MAFS.912.N-Q.1.1	

CTE Standards and Benchmarks		FS-M/LA	NGSSS-Sci
		MAFS.912.N-Q.1.2 MAFS.912.N-Q.1.3	
27.07	Organize and communicate the results obtained by observation and experimentation.	LAFS.1112.SL.2.4 LAFS.1112.W.2.4 MAFS.912.N-Q.1.1 MAFS.912.N-Q.1.2 MAFS.912.N-Q.1.3	
27.08	Ask appropriate scientific questions and recognize what is involved in experimental approaches to the solution of such questions.	LAFS.1112.SL.2.4 LAFS.1112.W.2.4	
27.09	Calculate ratios.		

Florida Department of Education
Curriculum Framework

Program Title: **Fire Fighter/ Emergency Medical Technician - Combined**
Program Type: **Career Preparatory**
Career Cluster: **Law, Public Safety, & Security/ Health Science**

Career Certificate Program	
Program Number	P430216
CIP Number	0743020312
Grade Level	30, 31
Standard Length	698 Hours
Teacher Certification: OCPs A&B	Refer to the **Program Structure** section.
Teacher Certification: OCPs C & D	Refer to the **Program Structure** section.
CTSO	FPSA and HOSA
SOC Codes (all applicable)	33-2011 Fire Fighters 29-2041 Emergency Medical Technicians and Paramedics 31-9099 Healthcare Support Workers, All Other
Basic Skills Level	Mathematics: 10 Language: 10 Reading: 10

 # These certifications can only be used for adjunct faculty. Please refer to 64J-1.201 F.A.C. for the EMS instructor qualifications.

Purpose

The purpose of this program is to provide the necessary training required for students to become Certified Fire Fighters as well as licensed Emergency Medical Technicians. It is not intended for those who are currently certified/licensed as either firefighters or EMTs. Students wishing to add an additional certification to an existing credential must enroll in either the Fire Fighter I/II program or the Emergency Medical Technician program.

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 Law, Public Safety and Security and Health Science career clusters; 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.

Program Structure

This program is a planned sequence of instruction consisting of 3 occupational completion points.

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. **(NOTE: Bureau of Fire Standards and Training (BFST) course number system on their frameworks is not the same as SCNS. Ensure to report the FDOE SCNS Course Number.)**

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	FFP0010	Fire Fighter I	FIRE FIGHT @7 7G	206 hours	33-2011
B	FFP0020	Fire Fighter II		192 hours	
C	EMS0110	Emergency Medical Technician	PARAMEDIC @7 7G # EMT 7G # REG NURSE 7 G #EMR MED TE @7 # PRAC NURSE @7 %7%G *(Must be a Registered Nurse)	300 hours	29-2041

Regulated Programs

Fire Fighter Regulation

Pursuant to 633.128, Florida Statutes, the Department of Financial Service, Division of State Fire Marshal, has established training requirements for firefighters and volunteer firefighters. These requirements are implemented by Rule 69A-37.055, Florida Administrative Code. This program is a planned sequence of instruction consisting of two occupational completion points. **(NOTE: The curriculum frameworks are subject to change by the Bureau of Fire Standards and Training (BFST) in accordance with statutory or Florida Administrative Code (F.A.C.) rule changes.)**

EMT Regulation

The EMT component of this combined program prepares students for certification as EMT's in accordance with Chapter 64J of the Florida Administrative Code. The program must be approved by the Department of Health, Office of Emergency Medical Services, and the curriculum must adhere to the US Department of Transportation (DOT), National EMS Education Standards for EMT. This is the initial level for a career in emergency medical services and the primary prerequisite for paramedic training and certification.

The EMT component of this program meets the Department of Health trauma score card methodologies and Sudden Unexpected Infant Death Syndrome training education requirements. Upon completion of this component, the instructor will provide a certificate to the student verifying that these requirements have been met. Programs may also teach domestic violence and prevention of medical errors education and may choose to provide a certificate to the student verifying that this education has been completed.

Please refer to chapter 401 F.S. for more information on disqualification for the EMT license through the Office of Emergency Medical Services, Department of Health.

The EMT component of this program must be taught by an instructor meeting the qualifications as set forth in 64J-1.0201 FAC.

An American Heart Association or Red Cross certification or equivalent in "professional" Basic Life Support is required of all candidates for entrance into the EMT component of this program.

The Student Performance Standards for Emergency Medical Technician were adapted from the US Department of Transportation (DOT) National EMS Educational Standards for EMT.

Florida Statute 401.2701 requires that the instructor-student ratio should not exceed 1:6. Hospital activity shall include a minimum of 20 hours of supervised clinical supervision, including 10 hours in a hospital emergency department. Clinical activity shall include appropriate patient assessment skills, intervention and documentation relevant to each clinical rotation.

Field internship shall include a competency based program to assure appropriate pre-hospital assessment and management of medical and trauma patients, as well as associated manual skills. The field internship activity shall include a minimum of 5 emergency runs resulting in patient care and transport appropriate for the EMT. In addition, the patient care component should include minimum competencies in patient assessment, airway management and ventilation, trauma and medical emergencies.

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

Fire Fighter Component

The **Bureau of Fire Standards and Training (BFST)** approved curricula is available at:

Fire Fighter I:
Fire Fighter II:

Emergency Medical Technician Component

01.0 Demonstration of a simple depth and foundational breadth of EMS systems.
02.0 Demonstration of a simple depth, simple breadth of research and evidence-based decision making.
03.0 Demonstration of a fundamental depth, foundational breadth of workforce safety and wellness.
04.0 Demonstration of a fundamental depth, foundational breadth of the principles of medical documentation and report writing.
05.0 Demonstration of a simple depth, simple breadth of the EMS communication system, communication with other health care professionals, and team communication.
06.0 Demonstration of a simple depth and simple breadth of the principles of therapeutic communication.
07.0 Demonstration of a fundamental depth, foundational breadth of medical legality and ethics.
08.0 Demonstrate the application of fundamental knowledge of the anatomy and function of all human systems to the practice of EMS.
09.0 Demonstrate the application of fundamental knowledge in the use of medical terminology and medical terms.
10.0 Demonstrate the application of a fundamental knowledge of the causes, pathophysiology and management of shock and the components of resuscitation.
11.0 Demonstrate the application of fundamental knowledge of life span development to patient assessment and management.
12.0 Demonstrate the use of simple knowledge of the principles of illness and injury prevention in emergency care.
13.0 Demonstrate a simple depth, simple breadth for medication safety and kinds of medications used during an emergency.
14.0 Demonstrate a fundamental depth and foundational breadth of medication administration within the scope of practice of the EMT.
15.0 Demonstrate a fundamental depth and simple breadth of emergency medications within the scope of practice of the EMT.
16.0 Demonstrate a foundational depth, foundational breadth of airway management within the scope of practice of the EMT.
17.0 Demonstrate a fundamental depth, foundational breadth of respiration.
18.0 Demonstrate a fundamental depth, foundational breadth of assessment and management utilizing artificial ventilation.
19.0 Demonstrate a fundamental depth, foundational breadth of scene management and multiple patient situations.
20.0 Demonstrate a fundamental depth, simple breadth of the primary assessment for all patient situations.
21.0 Demonstrate a fundamental depth, foundational breadth of the components of history taking.
22.0 Demonstrate a fundamental depth, foundational breadth of techniques used for a secondary assessment.
23.0 Demonstrate a simple depth, simple breath of monitoring devices within the scope of practice of the EMT.
24.0 Demonstrate a fundamental depth, foundational breadth of how and when to perform a reassessment for all patient situations.
25.0 Demonstrate a simple depth, foundation breadth of pathophysiology, assessment and management of medical complaints.
26.0 Demonstrate a fundamental depth, foundational breadth of the assessment and management of neurologic disorders/emergencies for all age groups.

27.0 Demonstrate a fundamental depth, foundational breadth of the assessment and management of abdominal and gastrointestinal disorders/emergencies for all age groups.
28.0 Demonstrate a fundamental depth, foundational breadth of the assessment and management of immunology disorders/emergencies for all age groups.
29.0 Demonstrate a simple depth, simple breadth of the assessment and management of a patient who may have an infectious disease for all age groups.
30.0 Demonstrate a fundamental depth, foundational breadth of the assessment and management of endocrine disorders/emergencies for all age groups.
31.0 Demonstrate a fundamental depth, foundational breadth regarding the assessment and management of psychiatric emergencies for all age groups.
32.0 Demonstrate a fundamental depth, foundational breadth of the assessment and management of cardiovascular emergencies for all age groups.
33.0 Demonstrate a fundamental depth, foundational breadth of the assessment and management of toxicological (poisoning and overdose) emergencies for all age groups.
34.0 Demonstrate a fundamental depth, foundational breadth of the assessment and management of respiratory disorders/emergencies for all age groups.
35.0 Demonstrate a simple depth, simple breadth of the assessment, and management of hematology disorders for all age groups.
36.0 Demonstrate a simple depth, simple breath of the assessment and management of genitourinary/ renal emergency for all age groups.
37.0 Demonstrate a fundamental depth, foundational breadth of the assessment and management of gynecologic emergencies for all age groups.
38.0 Demonstrate a fundamental depth, foundational breadth of the assessment and management of non-traumatic fractures for all age groups.
39.0 Demonstrate a simple depth, simple breadth in recognition and management of nose bleed for all age groups.
40.0 Demonstrate the application of fundamental knowledge of the causes, pathophysiology, and management of shock and respiratory failure.
41.0 Demonstrate a fundamental depth, foundational breadth of pathophysiology, assessment and management of the trauma patient for all age groups.
42.0 Demonstrate a fundamental depth, foundational breadth of pathophysiology, assessment, and management of bleeding for all age groups.
43.0 Demonstrate a fundamental depth, simple breadth of pathophysiology, assessment and management of chest trauma for all age groups.
44.0 Demonstrate a fundamental depth, simple breadth of pathophysiology, assessment and management of abdominal and genitourinary trauma for all age groups.
45.0 Demonstrate a fundamental depth, foundational breadth of pathophysiology, assessment, and management of orthopedic trauma for all age groups.
46.0 Demonstrate a fundamental depth, foundational breadth of pathophysiology, assessment, and management of soft tissue trauma for all age groups.
47.0 Demonstrate a fundamental depth, foundational breadth of pathophysiology, assessment, and management of head, facial, neck and spine trauma for all age groups.
48.0 Demonstrate a fundamental depth, foundational breadth of pathophysiology, assessment, and management of nervous system trauma for all age groups.
49.0 Demonstrate a fundamental depth, foundational breadth of pathophysiology, assessment and management of trauma patients with special considerations for all age groups.

50.0 Demonstrate a fundamental depth, foundational breadth of pathophysiology, assessment and management of environmental emergencies for all age groups.
51.0 Demonstrate a fundamental depth, foundational breadth of the pathophysiology, assessment, and management of multi-system trauma and blast injuries.
52.0 Demonstrate a fundamental depth, foundational breadth of management of the obstetric patient within the scope of practice of the EMT.
53.0 Demonstrate a fundamental depth, foundational breadth of management of the newborn and neonatal patient within the scope of practice of the EMT.
54.0 Demonstrate a fundamental depth, fundamental breath of management of the pediatric patient within the scope of practice of the EMT.
55.0 Demonstrate a fundamental depth, foundational breadth of management of the geriatric patient within the scope of practice of the EMT.
56.0 Demonstrate a simple depth, simple breadth of management of the patient with special challenges.
57.0 Demonstrate a simple depth, foundational breadth of risks and responsibilities of transport.
58.0 Demonstrate a fundamental depth, fundamental breadth of establishing and working within the incident management system.
59.0 Demonstrate a simple depth, foundational breadth of responding to an emergency during a multiple casualty incident.
60.0 Demonstrate a simple depth, simple breadth of safe air medical operations and criteria for utilizing air medical response.
61.0 Demonstrate a simple depth, simple breadth for safe vehicle extrication and use of simple hand tools.
62.0 Demonstrate a simple depth, simple breadth of risks and responsibilities of operating in a cold zone at a hazardous material or other special incident.
63.0 Demonstrate a simple depth, simple breadth of risks and responsibilities of operating on the scene of a natural or man-made disaster.

Florida Department of Education
Student Performance Standards

Program Title: **Fire Fighter/ Emergency Medical Technician - Combined**
PSAV Number: **P430216**

PSAV Course Number: FFP0010
Occupational Completion Point: A
Fire Fighter I – 206 Hours – SOC Code 33-2011

The **Bureau of Fire Standards and Training (BFST)** approved curricula is available at:

Fire Fighter I:

PSAV Course Number: FFP0020
Occupational Completion Point: B
Fire Fighter II – 192 Hours – SOC Code 33-2011

Fire Fighter II:

Course Number: EMS0110 **Occupational Completion Point: C** **Emergency Medical Technician – 300 Hours – SOC Code 29-2041**	
01.0	**EMS Systems:** Demonstration of a simple depth and foundational breadth of EMS systems. – The student will be able to:
01.01	Define Emergency Medical Services (EMS) systems.
01.02	Discuss the historical background of the development of the EMS system.
01.03	Identify the four levels of national EMS providers (EMR, EMT, AEMT and PM) as well as the three levels in the State of Florida.
01.04	Discuss the specific statutes and regulations regarding the EMS system in Florida.
01.05	Discuss vehicle and equipment readiness.
01.06	Characterize the EMS system's role in prevention and public education.
01.07	Discuss the roles and responsibilities of the EMT related to personal safety of the crew, patient, and by standers.

01.08	Discuss the roles and responsibilities of the EMT to operate emergency vehicles, provide scene leadership and perform patient assessment and administer emergency care.
01.09	Discuss the maintenance of certification and licensure for the EMT in the State of Florida and NREMT.
01.10	Define quality improvement and discuss the EMT's role in the process.
01.11	Identify the basics of common methods of payment for healthcare services.
01.12	Analyze attributes and attitudes of an effective leader.
01.13	Demonstrate effective techniques for managing team conflict.
01.14	Describe factors that influence the current delivery system of healthcare.
01.15	Discuss the importance of continuing medical education and skills retention.
01.16	Assess personal attitudes and demeanor that may distract from professionalism.
01.17	Serve as a role model and exhibit professional behaviors in the following areas: 01.17.01 integrity 01.17.02 empathy 01.17.03 self-motivation 01.17.04 appearance and personal hygiene 01.17.05 self-confidence 01.17.06 communications (including phone, email and social media etiquette) 01.17.07 time management 01.17.08 teamwork and diplomacy 01.17.09 respect 01.17.10 patient advocacy (inclusive of those with special needs, alternate life styles and cultural diversity) 01.17.11 careful delivery of service
02.0	**Research:** Demonstration of a simple depth, simple breadth of research and evidence-based decision making. – The student will be able to:
02.01	Discuss EMS research and evidence based decision making 02.01.01 Conduct scientific literature searches 02.01.02 Read, interpret and extract information from journal articles relevant to a project
02.02	Explain the importance to assess and treat patients based on evidence based decision making.
02.03	Interpret graphs, charts, and tables.
02.04	Measure time, temperature, distance, capacity, and mass/weight.
02.05	Convert and use traditional and metric units.
02.06	Make estimations, approximations and judge the reasonableness of the result.

	02.07	Convert time from a 12 hour format to a 24 hour format.
	02.08	Demonstrate ability to evaluate and draw conclusions.
	02.09	Calculate ratios.
	02.10	Explain the rationale for the ems system gathering data.
03.0	**Workforce Safety and Wellness:** Demonstration of a fundamental depth, foundational breadth of workforce safety and wellness. – The student will be able to:	
	03.01	Explain the need to determine scene safety.
	03.02	Discuss the importance of body substance isolation (BSI).
	03.03	Describe the steps the EMT should take for personal protection from airborne and blood borne pathogens as well as communicable disease.
	03.04	List the personal protective equipment necessary to protect oneself in common emergency situations.
	03.05	List possible emotional reactions that an individual (EMT and EMT family, Patient and Patient family) may experience when faced with trauma, illness, death and dying.
	03.06	State the steps the EMT should take when approaching a family confronted with death and dying.
	03.07	Recognize the warning signs of personal stress and discuss the strategies EMTs can apply to manage it.
	03.08	Demonstrate good body mechanics while using a stretcher and other patient moving devices.
	03.09	Discuss the guidelines and safety precautions that need to be followed when lifting a patient.
	03.10	Describe the guidelines and safety precautions for carrying patients and/or equipment.
	03.11	State the guidelines for reaching and their application.
	03.12	State the guidelines for pushing and pulling.
	03.13	Discuss patient positioning in common emergency situations.
	03.14	Discuss situation that may require the use of medical restraints on the patient and explain guidelines and safety consideration for their use.
	03.15	Define “infectious disease” and “communicable disease.”
	03.16	Describe the routes of transmission for infectious disease.
	03.17	Explain the mode of transmission and the steps to prevent/deal with an exposure of hepatitis, meningitis, tuberculosis and HIV.
	03.18	Explain how immunity to infectious diseases is acquired.

	03.19 Explain post exposure management of exposure to patient blood or body fluids, including completing a post exposure report.
	03.20 Describe the components of physical fitness and mental wellbeing.
	03.21 Identify personal health practices and environmental factors which affect function of each of the major body systems.
	03.22 Develop an awareness of complementary and alternative health practices.
	03.23 Explain the basic concepts of positive self-image, wellness and stress.
	03.24 Develop a wellness and stress control plan that can be used in personal and professional life.
	03.25 Explore the importance of adequate nutrition (i.e. U.S. Department of Agriculture's MyPlate food guide.)
	03.26 Identify personal health practices and environmental factors which affect function of each of the major body systems.
	03.27 Demonstrate the safe use of medical equipment.
	03.28 Explain the theory of root- cause analysis.
	03.29 Identify and describe methods in medical error reduction and prevention in the various healthcare settings.
	03.30 Identify and practice security procedures for medical supplies and equipment in the various healthcare settings.
	03.31 Describe fire, safety, disaster and evacuation procedures in the various healthcare settings.
	03.32 Discuss applicable accrediting and regulatory agency patient safety guidelines.
04.0	**Documentation:** Demonstration of a fundamental depth, foundational breadth of the principles of medical documentation and report writing. – The student will be able to:
	04.01 Recognize applications of technology in healthcare.
	04.02 Demonstrate basic computer skills.
	04.03 Interpret and utilize information from electronic health records.
	04.04 Identify methods of communication to access and distribute data such as fax, e-mail, and internet.
	04.05 Describe the use and importance of written communication and patient care documentation.
	04.06 Explain the legal implication of the patient care report.
	04.07 Identify the minimum dataset reference patient information and administrative information on the patient care report.
	04.08 Understand how to document refusal of care, including legal implications.
	04.09 Discuss the implications of the Health Insurance Portability and Accountability Act of 1996 on confidential documentation.

	04.10 Describe the special considerations concerning mass casualty incident documentation.
	04.11 Explain the relevance and importance of properly completed documentation.
	04.12 Demonstrate completion of a patient care report for a medical and trauma patient.
	04.13 Explain the rationale for patient care documentation.
05.0	**EMS System Communication:** Demonstration of a simple depth, simple breadth of the EMS communication system, communication with other health care professionals, and team communication. – The student will be able to:
	05.01 Understand the basic principles of the various types of communications equipment used in EMS.
	05.02 Describe the use of radio communication and correct radio procedures, including the proper methods of initiating and terminating the radio call/transmission.
	05.03 Explain the rationale for providing efficient and effective radio communications and patient reports.
	05.04 Identify the essential components of the verbal report and legal aspects that need to be considered.
	05.05 Perform an organized and concise radio transmission.
	05.06 Perform an organized, concise patient report that would be given to the staff at a receiving facility.
	05.07 Perform a brief, organized report that would be given to an ALS provider arriving at an incident scene at which the EMT was already providing care.
06.0	**Therapeutic Communication:** Demonstration of a simple depth and simple breadth of the principles of therapeutic communication. – The student will be able to:
	06.01 Describe principles of therapeutic and effective communication with patients in a manner that achieves a positive relationship.
	06.02 Develop basic speaking and active listening skills.
	06.03 Recognize the importance of patient/client educations regarding healthcare.
	06.04 Demonstrate the adjustment of communication strategies to effectively communicate with patients with: 06.04.01 differing age groups 06.04.02 differing developmental stages 06.04.03 special needs 06.04.04 Differing cultures, including language barriers.
	06.05 Demonstrate the communication techniques that should be used to interact with the patient, patient family, bystanders, and individuals from other agencies including verbal diffusion and interview techniques.
	06.06 Demonstrate the strategies for interviewing persons in special situations.
	06.07 Distinguish between and respond to verbal and non-verbal cues.
	06.08 Analyze elements of communication using a sender-receiver/close loop model.

	06.09	Exhibit positive non-verbal behaviors.
	06.10	Establish proper patient rapport.
07.0	**Medical/Legal and Ethics:** Demonstration of a fundamental depth, foundational breadth of medical legality and ethics. – The student will be able to:	
	07.01	Differentiate between expressed, implied and involuntary consent.
	07.02	Discuss the methods of obtaining consent and procedures for minors.
	07.03	Discuss the issues of abandonment, negligence, false imprisonment and battery and their implications to the EMT.
	07.04	Discuss the implications for the EMT in patient refusal of care and/or transport.
	07.05	Explain the importance, necessity and legality of patient confidentiality.
	07.06	Discuss the importance of Do Not Resuscitate [DNR] (advance directives) and local or Florida provisions regarding EMS application.
	07.07	Discuss state of Florida and federal special reporting situations including: 07.07.01 abuse 07.07.02 sexual assault 07.07.03 gunshot and knife wounds 07.07.04 communicable disease
	07.08	Differentiate between civil tort and criminal actions.
	07.09	List the elements of negligence and defenses/protections from liability.
	07.10	Discuss the role of the EMT at crime scenes and preservation of evidence.
	07.11	Define ethics and morality and discuss their implication for the EMT.
	07.12	Differentiate between licensure and certification as they apply to EMS.
	07.13	Discuss Florida legislation such as the Baker Act, Marchman Act, and the Emergency Examination and Treatment of Incapacitated Persons Act.
	07.14	Differentiate between the scope of practice and the standard of care as applied to the EMT.
	07.15	Discuss the legal concept of immunity, including Good Samaritan statutes and governmental immunity.
	07.16	Describe the appropriate patient management and care techniques in a refusal of care situation.
	07.17	Analyze the relationship between the law, morals and ethics in EMS and the premise that should under lie the EMTs ethical decisions.
	07.18	Describe the criteria necessary to honor an advance directive.

	07.19 Explain the rationale for the needs, benefits and varying degrees of advance directives.
08.0	**Anatomy and Physiology**: Demonstrate the application of fundamental knowledge of the anatomy and function of all human systems to the practice of EMS. – The student will be able to:
	08.01 Label the following topographic terms: 08.01.01 Medial 08.01.02 lateral 08.01.03 proximal 08.01.04 distal 08.01.05 superior 08.01.06 inferior 08.01.07 anterior 08.01.08 posterior 08.01.09 midline 08.01.10 right and left 08.01.11 mid-clavicular 08.01.12 bilateral 08.01.13 mid-axillary
	08.02 Chart the life support chain, aerobic metabolism, and anaerobic metabolism.
	08.03 Define anatomy, physiology, pathophysiology, and homeostasis.
	08.04 Identify and describe the anatomical structures and functions of the following: 08.04.01 Skeletal system 08.04.02 Muscular system 08.04.03 Respiratory System 08.04.04 Circulatory/ Cardiovascular system 08.04.05 Nervous System 08.04.06 Integumentary system 08.04.07 Digestive system 08.04.08 Endocrine system including glands and hormones 08.04.09 Renal system 08.04.10 Reproductive system 08.04.11 Lymphatic System
	08.05 Explain cellular anatomy and physiology.
	08.06 Explain cellular respiration.
	08.07 Discuss cell division.
	08.08 Describe the different types of muscle tissues including skeletal, smooth and cardiac.
	08.09 Describe the functions and divisions of the skeletal system including the classifications of bones.

	08.10 Name and identify the location of the bones of the axial and appendicular skeleton.
	08.11 Describe the classification and types of joints.
	08.12 Describe the function of muscles.
	08.13 Identify major muscles of the body.
	08.14 Describe the general function of the respiratory system and its structures.
	08.15 Discuss the mechanisms of breathing including: 08.15.01 Mechanical Ventilation 08.15.02 Pulmonary volumes 08.15.03 Dead space 08.15.04 Lung compliance
	08.16 Explain the diffusion of gases in external and internal respiration.
	08.17 Describe oxygen and carbon dioxide transport in the blood.
	08.18 Describe nervous and chemical mechanisms that regulate respirations.
	08.19 Discuss respiration and acid-base balance.
	08.20 Describe the composition and function of blood and plasma.
	08.21 Identify and describe the anatomical structures and functions of the cardiovascular system.
	08.22 Discuss the hemodynamics of blood pressure.
	08.23 Discuss the role of nutrition, metabolism and body temperature on body function.
	08.24 Describe the causes, advantages and disadvantages of a fever
	08.25 Discuss the hypothalamus functions as the thermostat in the body
09.0	**Medical Terminology:** Demonstrate the application of fundamental knowledge in the use of medical terminology and medical terms. – The student will be able to:
	09.01 Identify medical terminology word parts such as: 09.01.01 root words 09.01.02 prefixes 09.01.03 suffixes 09.01.04 combining forms
	09.02 Correctly utilize medical terminology describing each of the following: 09.02.01 body structures 09.02.02 functions, 09.02.03 conditions and disorders

	09.02.04 body regions 09.02.05 cavities 09.02.06 areas 09.02.07 landmarks	
	09.03 Correctly use medical abbreviations and symbols.	
	09.04 Read and understand basic medical documentation in medical records and medical reports.	
	09.05 Communicate with healthcare professionals utilizing basic medical terminology.	
	09.06 Explain the rationale for using accepted medical terminology correctly.	
10.0	**Pathophysiology:** Demonstrate the application of a fundamental knowledge of the causes, pathophysiology and management of shock and the components of resuscitation. – The student will be able to:	
	10.01 Discuss signs of irreversible death.	
	10.02 Review the anatomy and physiology of the respiratory and cardiovascular systems.	
	10.03 Discuss and identify the pathophysiology and medical care for respiratory failure as well as respiratory and cardiac arrest.	
	10.04 Explain the system components of CPR, the four links in the AHA chain of survival and how each one relates to maximizing the survival of the patient.	
	10.05 Show Provider (AHA guidelines) certification required prior to EMT program admission as per FS 401.27.	
	10.06 Understand shock, including the pathophysiology, causes, and its signs and symptoms associated with the various types of shock.	
	10.07 Discuss patient assessment and steps to the emergency care of the patient with signs and symptoms of shock.	
	10.08 Based on age variations, discuss and distinguish the variations and causes between the management of patient experiencing shock.	
11.0	**Life Span Development:** Demonstrate the application of fundamental knowledge of life span development to patient assessment and management. – The student will be able to:	
	11.01 Describe the major physiologic and psychosocial characteristics of: 11.01.01 An infant's life 11.01.02 A toddler and preschooler's life 11.01.03 A school age child's life 11.01.04 An adolescent's life 11.01.05 An early adults life 11.01.06 A middle adult's life 11.01.07 A late adult's life	
12.0	**Public Health:** Demonstrate the use of simple knowledge of the principles of illness and injury prevention in emergency care. – The student will be able to:	
	12.01 Define public health and explain the goal of the public health field.	

	12.02 Identify the EMS role within the public health field.
	12.03 Recognize the three categories of public health laws.
	12.04 Discuss basic concepts of epidemiology.
	12.05 Discuss ways of EMS involvement in injury prevention.
	12.06 Identify areas of need for prevention programs in the community.
13.0	**Principles of Pharmacology:** Demonstrate a simple depth, simple breadth for medication safety and kinds of medications used during an emergency. – The student will be able to:
	13.01 Explain the "six rights" of medication administration and describe how each one related to EMS.
	13.02 Discuss the forms in which the medications may be found and provide examples of each and discuss how the form of a medication dictates its route of administration.
	13.03 Describe the difference between a generic medication name and trade name, and provide an example of each.
	13.04 Discuss the components and elements of a drug profile including: 13.04.01 Actions 13.04.02 Contraindications 13.04.03 Side effects 13.04.04 Dose 13.04.05 Route
	13.05 Describe the role of medical direction in medication administration and explain the difference between direct orders (online) and standing orders (off-line).
14.0	**Medication Administration:** Demonstrate a fundamental depth and foundational breadth of medication administration within the scope of practice of the EMT. –The student will be able to:
	14.01 Discuss the difference between administration versus assistance of patient medications.
	14.02 Explain the rationale for the administration of medications.
	14.02.01 Assist in the administration of medications by the following routes: 14.02.02 oral 14.02.03 sublingual 14.02.04 inhalation 14.02.05 auto- injector
15.0	**Emergency Medications:** Demonstrate a fundamental depth and simple breadth of emergency medications within the scope of practice of the EMT. – The student will be able to:
	15.01 State the following for each medication that can be administered by an EMT as dictated by the State of Florida and local medical direction : 15.01.01 Generic and trade names 15.01.02 Actions 15.01.03 Indication

	15.01.04 Contraindications 15.01.05 Complications 15.01.06 Routes of administration 15.01.07 Side effects 15.01.08 Interactions 15.01.09 Doses of medications
	15.02 Discuss the forms in which the medications may be found.
	15.03 Demonstrate the steps in properly inspecting each type of medication.
16.0	**Airway Management:** Demonstrate a foundational depth, foundational breadth of airway management within the scope of practice of the EMT. – The student will be able to:
	16.01 Review the structures and functions of the respiratory system.
	16.02 State what care should be provided for a patient with or without adequate breathing.
	16.03 Describe and demonstrate the steps in performing the head-tilt chin-lift and jaw thrust in all age groups.
	16.04 Relate mechanism of injury to opening the airway.
	16.05 Explain the differences between airway anatomies in all age groups.
	16.06 Describe the following for a patient with an automatic transport ventilator (ATV): 16.06.01 Indications 16.06.02 Contraindications 16.06.03 Advantages 16.06.04 Disadvantages 16.06.05 Complications 16.06.06 Technique for ventilating
	16.07 Describe the following regarding supplemental oxygen delivery devices: 16.07.01 Indications 16.07.02 Contraindications 16.07.03 Advantages 16.07.04 Disadvantages 16.07.05 Complications 16.07.06 Liter Flow Range 16.07.07 Concentration of Delivered Oxygen
	16.08 Define, identify and describe the following: 16.08.01 tracheostomy 16.08.02 laryngectomy 16.08.03 stoma 16.08.04 tracheostomy tube
	16.09 Describe the special considerations in airway management and ventilation for the pediatric patient.

	16.10 Demonstrate the techniques of suctioning in all age groups.
	16.11 Demonstrate relief of FBAO in all age groups.
	16.12 Demonstrate how to insert an oral and nasal -airway adjunct in all age groups.
	16.13 Demonstrate how to insert both esophageal and supra-glottic airways in all age groups.
17.0	**Respirations:** Demonstrate a fundamental depth, foundational breadth of respiration. – The student will be able to:
	17.01 Review the pulmonary ventilation process to include mechanics of ventilation and alveolar ventilation (tidal volumes, dead space, etc.).
	17.02 Describe the oxygenation process.
	17.03 Explain both external and internal respiration process.
	17.04 Discuss the various pathophysiologies of the respiratory system.
	17.05 Describe assessment and management for adequate and inadequate respiration, including the use of pulse oximetry and capnography.
	17.06 State the following for oxygen delivery devices: 17.06.01 components 17.06.02 purpose 17.06.03 indications 17.06.04 contraindications 17.06.05 complications 17.06.06 procedures
	17.07 Describe and demonstrate the steps in performing the skill of assisting ventilations in the conscious and unconscious patient in respiratory distress using a bag-valve-mask (BVM), and continuous positive airway pressure (CPAP).
	17.08 Review the anatomy and physiology of the respiratory system including: 17.08.01 control of respirations 17.08.02 mechanics of respiration 17.08.03 pulmonary ventilation 17.08.04 oxygenation 17.08.05 mechanical ventilation
	17.09 Explain the rationale for providing adequate oxygenation through high inspired oxygen concentrations to patients who, in the past, may have received low concentrations.
	17.10 Demonstrate the correct operation of oxygen tanks and regulators.
	17.11 Demonstrate the use of high, medium, low and variable concentration oxygen delivery devices for all age groups.
	17.12 Demonstrate the use of an oxygen humidifier and the requirements needed for its use.
	17.13 Discuss the differences between negative pressure and positive pressure ventilation.

18.0	**Artificial Ventilations:** Demonstrate a fundamental depth, foundational breadth of assessment and management utilizing artificial ventilation. – The student will be able to:
	18.01 Demonstrate how to artificially ventilate a patient with a pocket mask.
	18.02 Demonstrate the steps in performing the skill of artificially ventilating a patient with a BVM for one and two rescuers using oral-nasal airway adjusts, head tilt chin lift and jaw thrust.
	18.03 Demonstrate the signs of adequate and inadequate artificial ventilation using the BVM.
	18.04 Describe and demonstrate the steps in artificially ventilating a patient with a manually triggered ventilation device.
	18.05 Demonstrate how to artificially ventilate the pediatric, adult and geriatric patient.
	18.06 Describe the steps involved in performing a comprehensive assessment of ventilations in all age groups.
	18.07 Demonstrate how to artificially ventilate a patient with a stoma.
	18.08 Demonstrate how to artificially ventilate a patient for all age groups.
	18.09 Demonstrate the use of various devices used in the assessment of supra-glottic and esophageal airway placement.
19.0	**Scene Size-Up:** Demonstrate a fundamental depth, foundational breadth of scene management and multiple patient situations**.** – The student will be able to:
	19.01 Recognize and describe hazards/potential hazards at the scene.
	19.02 Discuss common mechanisms of injury/nature of illness.
	19.03 Discuss the procedures for multiple-patient situations.
	19.04 Explain why it is important for the EMT to determine the need for additional or specialized resources.
	19.05 Discuss the importance of continuous scene assessment to ensure safety of the EMS team and the patient.
	19.06 List the minimum standard precautions that should be followed and PPE that should be worn at the emergency scene.
	19.07 Determine special considerations for dealing with a violent scene.
	19.08 Explain the rationale for crew members to evaluate scene safety prior to entering.
	19.09 Explain how patient situations affect your evaluation of mechanism of injury or illness.
20.0	**Primary Assessment:** Demonstrate a fundamental depth, simple breadth of the primary assessment for all patient situations. – The student will be able to:
	20.01 Summarize the elements of a general impression of the patient.
	20.02 Explain the reason for performing a primary assessment.

	20.03 Discuss and demonstrate methods of assessing altered mental status using assess for level of consciousness (AVPU).
	20.04 Discuss and demonstrate methods of assessing the airway and providing airway care.
	20.05 Describe and demonstrate methods used for assessing if a patient is breathing.
	20.06 Differentiate between a patient with adequate and inadequate breathing.
	20.07 Distinguish between methods of assessing breathing for all age groups.
	20.08 Describe and demonstrate the methods used to obtain a pulse in all age groups
	20.09 Compare the methods of providing airway care in all age groups.
	20.10 Discuss and demonstrate the need for assessing the patient for external bleeding.
	20.11 Describe and demonstrate normal and abnormal findings when assessing skin color, temperature, moisture and capillary refill for all age groups.
	20.12 Explain the reason for and demonstrate prioritizing a patient for care and transport.
	20.13 Describe when it is appropriate to expose the patient completely.
	20.14 Differentiate between critical life-threatening, potentially life- threatening, and non-life-threatening patient presentations.
21.0	**History-Taking:** Demonstrate a fundamental depth, foundational breadth of the components of history taking. – The student will be able to:
	21.01 Determine the chief complaint.
	21.02 Investigate the chief complaint.
	21.03 Describe components of the patient history.
	21.04 Explain the importance of obtaining a SAMPLE and OPQRST history.
	21.05 Recognize and respond to the feelings patients experience during assessment.
	21.06 Discuss the value of obtaining a family and social history.
	21.07 Describe examples of different techniques the EMT may use to obtain information from patients, family or bystanders during the history taking process.
22.0	**Secondary Assessment:** Demonstrate a fundamental depth, foundational breadth of techniques used for a secondary assessment. – The student will be able to:
	22.01 Describe the unique needs and demonstrate assessing an individual with a specific chief complaint with no known prior history.
	22.02 Discuss the components and techniques of the physical exam and skills involved.

	22.03 Differentiate between the history and physical exam that are performed for responsive patients with no known prior history, responsive patients with a known prior history and unresponsive patients.
	22.04 State the circumstances for performing a rapid assessment.
	22.05 Discuss the reason for performing a focused history and physical exam.
	22.06 Describe and demonstrate the techniques of inspection, palpation, percussion, and auscultation.
	22.07 Describe and demonstrate the importance of obtaining a baseline set of vital signs.
	22.08 List normal blood pressure ranges for all age groups.
	22.09 Describe and demonstrate the head to toe examination.
	22.10 Demonstrate special examination techniques of the cardiovascular examination.
	22.11 Demonstrate the examination of the nervous system.
	22.12 Demonstrate a physical exam performed for a responsive patient with and without a known prior history.
	22.13 Demonstrate a physical exam performed for an unresponsive patient.
	22.14 Recognize and respond to the feelings patients experience during assessment.
23.0	**Monitoring Devices:** Demonstrate a simple depth, simple breath of monitoring devices within the scope of practice of the EMT. – The student will be able to:
	23.01 Explain and demonstrate the use and interpretation of pulse oximetry and capnography device readings.
	23.02 Demonstrate and understand the findings of a blood pressure measured by palpation, auscultation and electronic device.
	23.03 Describe and demonstrate the purpose, indications, procedure, normal findings, and limitations of the following patient monitoring technologies. 23.03.01 Pulse Oximetry 23.03.02 Glucometry 23.03.03 Capnography
	23.04 Demonstrate the application of a cardiac monitor.
24.0	**Reassessment:** Demonstrate a fundamental depth, foundational breadth of how and when to perform a reassessment for all patient situations. – The student will be able to:
	24.01 Describe the components of the reassessment and demonstrate the skills involved.
	24.02 Discuss the reasons for repeating the initial assessment as part of the reassessment.
	24.03 Explain trending assessment components and its value to other health professionals who assume care of the patient.
	24.04 Demonstrate the steps for performing the reassessment of patients in all age groups.

	24.05 Explain the rationale of recording additional sets of vital signs.
25.0	**Medical Overview:** Demonstrate a simple depth, foundation breadth of pathophysiology, assessment and management of medical complaints. – The student will be able to:
	25.01 Identify the assessment factors for a patient with a medical complaint including:
	25.01.01 scene safety
	25.01.02 environmental factors
	25.01.03 chief complaint
	25.01.04 non-life threatening conditions
	25.01.05 distracting injuries
	25.01.06 tunnel vision
	25.01.07 patient cooperation
	25.01.08 rescuer attitude
	25.02 Discuss forming a field impression and utilizing available information to determine a differential diagnosis.
26.0	**Neurology:** Demonstrate a fundamental depth, foundational breadth of the assessment and management of neurologic disorders/emergencies for all age groups. – The student will be able to:
	26.01 Review the anatomy and physiology of the nervous system.
	26.02 Describe the pathophysiology of the following neurologic disorders: 26.02.01 Altered Mental Status 26.02.02 Stroke 26.02.03 Transient Ischemic Attack 26.02.04 Headache 26.02.05 Seizures 26.02.06 Syncope
	26.03 Discuss and identify the causes, signs and symptoms of ischemic strokes, hemorrhagic strokes and transient ischemic attacks and their similarities and differences.
	26.04 Discuss and demonstrate how to use a stroke scoring system in the assessment of patients with suspected stroke.
	26.05 Define and differentiate generalize seizure, partial seizure and status epilepticus and list their possible causes.
	26.06 Define and differentiate migraine headache, sinus headache, tension headache and discuss how to distinguish a harmless headaches from something more serious.
	26.07 Define “altered mental status” and identify the possible causes.

	26.08 Describe and demonstrate the assessment and management of the patient with various neurological emergencies in all age groups to include: 26.08.01 strokes 26.08.02 headaches 26.08.03 seizures 26.08.04 altered mental status
	26.09 Discuss the transport of the stroke patient to the appropriate treatment center.
27.0	**Abdominal and Gastrointestinal Disorder:** Demonstrate a fundamental depth, foundational breadth of the assessment and management of abdominal and gastrointestinal disorders/emergencies for all age groups. – The student will be able to:
	27.01 Review the basic anatomy and physiology the gastrointestinal, genital and urinary systems.
	27.02 Describe the pathophysiology of the following abdominal and gastrointestinal disorders: 27.02.01 Abdominal Pain 27.02.02 Acute Abdomen 27.02.03 Peritonitis 27.02.04 Appendicitis 27.02.05 Pancreatitis 27.02.06 Cholecystitis 27.02.07 Gastrointestinal bleeding 27.02.08 Esophageal Varices 27.02.09 Gastroenteritis 27.02.10 Ulcers 27.02.11 Intestinal Obstruction 27.02.12 Hernia 27.02.13 Abdominal Aortic Aneurysm
	27.03 Define the term," acute abdomen".
	27.04 Identify the signs and symptoms, and common causes of an acute abdomen.
	27.05 Define upper and lower gastrointestinal bleeding.
	27.06 Describe and demonstrate the assessment and management of the patient in all age groups with various gastrointestinal emergencies to include upper and lower gastrointestinal bleeding.
	27.07 Recognize the signs and symptoms related to upper and lower gastrointestinal bleeding.
	27.08 Define acute gastroenteritis.
	27.09 Differentiate between hemorrhagic and non-hemorrhagic abdominal pain.
	27.10 Discuss the signs and symptoms of peritoneal inflammation relative to acute abdominal pain.
28.0	**Immunology:** Demonstrate a fundamental depth, foundational breadth of the assessment and management of immunology disorders/emergencies for all age groups. – The student will be able to:

	28.01 Define and differentiate allergic reaction and anaphylaxis.
	28.02 Describe the pathophysiology of the following immunology disorders: 28.02.01 Allergic Reaction 28.02.02 Anaphylaxis 28.02.03 Anaphylactic Shock
	28.03 Describe and demonstrate the assessment and management of the patient in all age groups experiencing an allergic or anaphylactic reaction.
	28.04 State the following for the epinephrine auto-injector: 28.04.01 generic and trade names 28.04.02 medication forms 28.04.03 dose 28.04.04 administration 28.04.05 action 28.04.06 contraindications
	28.05 Demonstrate the use of epinephrine auto-injector.
	28.06 Review the anatomy and physiology of the organs and structures related to anaphylaxis.
	28.07 Describe the incidence, morbidity and mortality of anaphylaxis.
	28.08 Identify the risk factors most predisposing to anaphylaxis.
	28.09 Recognize the signs and symptoms related to anaphylaxis.
	28.10 Describe the prevention of anaphylaxis and appropriate patient education.
	28.11 List common antigens most frequently associated with anaphylaxis.
	28.12 Demonstrate how to remove a stinger from a bee sting and proper management following its removal.
29.0	**Infectious Disease:** Demonstrate a simple depth, simple breadth of the assessment and management of a patient who may have an infectious disease for all age groups. – The student will be able to:
	29.01 List the causes of infectious diseases.
	29.02 Describe the pathophysiology of the following infectious diseases: 29.02.01 Hepatitis B 29.02.02 Hepatitis C 29.02.03 Tuberculosis 29.02.04 Human Immunodeficiency Virus (AIDS) 29.02.05 Severe Acute Respiratory Syndrome 29.02.06 West Nile Virus 29.02.07 Multidrug-Resistant Organisms
	29.03 Describe and demonstrate the assessment and management of the patient in all age groups experiencing an infectious disease.

29.04	Discuss mandatory notification to State or Federal agencies of various diseases.
29.05	Identify patients with risk factors for infectious disease.
29.06	Explain the principles and practices of infection control in prehospital care.
29.07	Describe and discuss the rationale for the various types of PPE.
29.08	Discuss the proper disposal of contaminated supplies (sharps, gauze sponges, tourniquets, etc.).
29.09	Discuss decontamination of the ambulance and disinfection of patient care equipment, and areas in which care of the patient occurred.
29.10	Describe the actions to take if the EMS provider is exposed to an infectious disease.
29.11	Demonstrate the ability to comply with body substance isolation guidelines.
30.0	**Endocrine Disorders:** Demonstrate a fundamental depth, foundational breadth of the assessment and management of endocrine disorders/emergencies for all age groups. – The student will be able to:
30.01	Review the anatomy and physiology of the endocrine system and its main function in the body.
30.02	Describe the pathophysiology of the following endocrine disorders: 30.02.01 Insulin Dependent Diabetes Mellitus 30.02.02 Non-Insulin Dependent Diabetes Mellitus 30.02.03 Hypoglycemia 30.02.04 Hyperglycemia 30.02.05 Diabetic Ketoacidosis(DKA) 30.02.06 Hyperglycemic Hyperosmolar Nonketotic Syndrome (HHNS)
30.03	Define and differentiate diabetes (type I and II), hypoglycemia, hyperglycemia, insulin shock, and diabetic ketoacidosis.
30.04	Identify and demonstrate the steps in the management of the patient taking diabetic medicine with an altered mental status and a history of diabetes.
30.05	State the following for oral glucose: 30.05.01 Generic and trade names 30.05.02 Medication forms 30.05.03 Dose 30.05.04 Administration 30.05.05 Action 30.05.06 Contraindications
30.06	Demonstrate the steps of using a glucometer device and administering oral glucose.
30.07	Describe and demonstrate the assessment and the management of the patient in all age groups experiencing an endocrinologic emergency to include hypo- and hyper-glycemia.
30.08	Discuss the general assessment findings associated with endocrinologic emergencies.

	30.09 Differentiate between the pathophysiology of normal glucose metabolism and diabetic glucose metabolism.
	30.10 Recognize the signs and symptoms of the patient with hypoglycemia.
	30.11 Recognize the signs and symptoms of the patient with hyperglycemia.
	30.12 Discuss the pathophysiology of diabetic ketoacidosis.
	30.13 Recognize the signs and symptoms of the patient with diabetic ketoacidosis.
31.0	**Psychiatric:** Demonstrate a fundamental depth, foundational breadth regarding the assessment and management of psychiatric emergencies for all age groups. – The student will be able to:
	31.01 Define behavior, psychiatric disorders and behavioral emergencies.
	31.02 Describe the pathophysiology of the following psychiatric disorders: 31.02.01 Anxiety 31.02.02 Phobias 31.02.03 Depression 31.02.04 Paranoia 31.02.05 Psychosis 31.02.06 Schizophrenia 31.02.07 Suicidal Ideations 31.02.08 Agitated Delirium 31.02.09 Violence toward Others
	31.03 Discuss the general factors that may cause an alteration in a patient's behavior.
	31.04 Discuss the risk factors/signs or symptoms of various psychiatric emergencies to include suicide.
	31.05 Given an scenario, apply knowledge of the special medical/legal considerations for managing behavioral emergencies to include Florida statues: 31.05.01 Baker Act (FS 394.451) 31.05.02 Marchman Act (FS 397.601 and FS 397.675) 31.05.03 Emergency examination and treatment of incapacitated (FS401.445)
	31.06 Describe and demonstrate the assessment and management of the patient in all age groups experiencing a behavioral or psychiatric emergency.
	31.07 Describe the biological, psychosocial, and sociocultural influences on psychiatric disorders.
	31.08 Describe the special considerations for the safety of the EMS provider and EMS crew, the patient and bystanders when dealing with behavioral and psychiatric disorders.
	31.09 Describe methods of restraint that may be necessary in managing the emotionally disturbed patient and the possible legal implications.
	31.10 Explain the rationale for learning how to modify your behavior toward the patient with a behavioral emergency.
32.0	**Cardiovascular**: Demonstrate a fundamental depth, foundational breadth of the assessment and management of cardiovascular

	emergencies for all age groups. – The student will be able to:
	32.01 Review the basic anatomy and physiology of the cardiovascular system.
	32.02 Describe the pathophysiology of the following cardiovascular disorders: 32.02.01 Acute Coronary Syndrome 32.02.02 Angina pectoris 32.02.03 Thromboembolism 32.02.04 Myocardial infarction 32.02.05 Hypertensive emergencies 32.02.06 Aortic aneurysm/dissection 32.02.07 Left and right sided Heart Failure 32.02.08 Cardiogenic Shock 32.02.09 Hypertensive Emergencies 32.02.10 Cardiac Arrest
	32.03 Describe and demonstrate the assessment and management of the patient in all age groups experiencing a cardiac emergency.
	32.04 List the indications and contraindications for automated external defibrillation (AED).
	32.05 Explain the impact of age and weight on defibrillation.
	32.06 Discuss the position of comfort for patients with various cardiac emergencies.
	32.07 Explain the rationale for early defibrillation.
	32.08 Discuss the various types of automated external defibrillators.
	32.09 Differentiate between the fully automated and the semi-automated defibrillator.
	32.10 Understand the importance of maintenance and operators check list for AED's.
	32.11 Demonstrate the ability to use an AED according to the latest American Heart Association (AHA) guidelines.
	32.12 Explain the role medical direction plays in the use of automated external defibrillation.
	32.13 Explain the rationale for administering nitroglycerin and ASA to a patient with chest pain or discomfort.
	32.14 Demonstrate the assessment and documentation of patient response to the automated external defibrillator.
	32.15 Demonstrate the assessment and documentation of patient response to nitroglycerin.
33.0	**Toxicology:** Demonstrate a fundamental depth, foundational breadth of the assessment and management of toxicological (poisoning and overdose) emergencies for all age groups. – The student will be able to:
	33.01 Define and differentiate toxicology, poisoning, and overdose.

	33.02 Describe the pathophysiology of the following toxicological emergencies: 33.02.01 Food Poisoning 33.02.02 Carbon Monoxide Poisoning 33.02.03 Cyanide Poisoning 33.02.04 Exposure to Acid or Alkaline Substances 33.02.05 Exposure to Hydrocarbons 33.02.06 Methanol Ingestion 33.02.07 Isopropanol Ingestion 33.02.08 Ethylene Glycol Ingestion 33.02.09 Exposure to Poisonous Plants 33.02.10 Drug Withdrawal 33.02.11 Alcoholic Syndrome 33.02.12 Withdrawal syndrome (including delirium tremens) 33.02.13 Illicit Drug Use 33.02.14 Medication Overdose
	33.03 List various ways that poisons enter the body.
	33.04 List signs/symptoms associated with poisoning.
	33.05 Discuss and demonstrate the assessment and management for the patient in all age groups with poisoning or overdose.
	33.06 Discuss the role of the Poison Control Center with the nationwide contact number 800-222-1222 in the United States.
	33.07 Explain the rationale for contacting medical direction early in the prehospital management of the poisoning or overdose patient.
34.0	**Respiratory:** Demonstrate a fundamental depth, foundational breadth of the assessment and management of respiratory disorders/emergencies for all age groups. – The student will be able to:
	34.01 Review the basic anatomy and physiology of the respiratory system.
	34.02 Describe the pathophysiology of the following respiratory disorders: 34.02.01 Chronic Obstructive Pulmonary Disease: Emphysema, Chronic Bronchitis, and Asthma 34.02.02 Pulmonary Edema 34.02.03 Spontaneous Pneumothorax 34.02.04 Hyperventilation Syndrome 34.02.05 Epiglottitis 34.02.06 Pertussis 34.02.07 Cystic Fibrosis 34.02.08 Pulmonary Embolism 34.02.09 Pneumonia 34.02.10 Viral Respiratory Infections 34.02.11 Poisonous Exposures
	34.03 List signs of adequate air exchange.

	34.04 State the signs and symptoms of a patient with respiratory distress.
	34.05 Describe and demonstrate the assessment and management of the patient in all age groups with a respiratory emergency.
	34.06 State the following for the metered-dose inhaler: 34.06.01 generic name 34.06.02 medication forms 34.06.03 dose 34.06.04 administration 34.06.05 action 34.06.06 indications 34.06.07 contraindications
	34.07 Describe and demonstrate the steps in facilitating the use of an inhaler.
	34.08 Differentiate between upper airway obstruction and lower airway disease in the patient for all age groups.
	34.09 Discuss the measures needed to ensure personal safety while attending to the patient with a respiratory emergency or infection.
	34.10 Demonstrate proper use of airway and ventilation devices.
	34.11 Explain the rationale and demonstrate the application of a CPAP/ BiPAP unit.
35.0	**Hematology:** Demonstrate a simple depth, simple breadth of the assessment, and management of hematology disorders for all age groups. – The student will be able to:
	35.01 Review the anatomy and physiology of blood.
	35.02 Describe the pathophysiology of the following hematology disorders: 35.02.01 Anemia 35.02.02 Sickle Cell Anemia / Sickle Cell Crisis 35.02.03 Hemophilia
	35.03 State the signs and symptoms of a patient with a Sickle Cell crisis or a clotting disorder.
	35.04 Describe and demonstrate the assessment and the management of the patient with Sickle cell crisis or a clotting disorder.
	35.05 Describe the anatomy and physiology of the hematologic system to the pathophysiology and assessment of patients with hematologic disorders such as Sickle cell.
36.0	**Genitourinary /Renal:** Demonstrate a simple depth, simple breath of the assessment and management of genitourinary/ renal emergency for all age groups. – The student will be able to:
	36.01.01 Review the basic anatomy and physiology of the genitourinary and renal systems
	36.02 Describe the pathophysiology of the following genitourinary/ renal disorders: 36.02.01 Urinary Tract Infection 36.02.02 Kidney Stones 36.02.03 Kidney Failure

	36.03 Understand the basic principles of kidney dialysis.
	36.04 Discuss the signs and symptoms of a patient with a dialysis emergency.
	36.05 Describe and demonstrate the assessment and management of the patient with a dialysis emergency.
37.0	**Gynecology:** Demonstrate a fundamental depth, foundational breadth of the assessment and management of gynecologic emergencies for all age groups. – The student will be able to:
	37.01 Review the basic anatomy and physiology of the female reproductive system.
	37.02 Describe the pathophysiology of the following gynecologic disorders and emergencies: 37.02.01 Sexual Assault 37.02.02 Nontraumatic Vaginal Bleeding 37.02.03 Menstrual Pain 37.02.04 Ovarian Cyst 37.02.05 Endometritis 37.02.06 Endometriosis 37.02.07 Pelvic Inflammatory Disease 37.02.08 Sexually Transmitted Diseases
	37.02.09 Describe and demonstrate the assessment and management of the patient in all age groups experiencing a gynecologic emergency to include: 37.02.10 excessive bleeding 37.02.11 abdominal pain 37.02.12 sexual assault.
	37.03 Discuss the special consideration and precautions an EMT must observe when arriving at the scene of a suspected case of sexual assault or rape.
	37.04 Describe the assessment and management of a patient who has experienced a sexual assault including the psychosocial impact and assessment findings/presentations.
	37.05 Value the importance of maintaining a patient's modesty and privacy while still being able to obtain necessary information.
	37.06 Defend the need to provide care for a patient of sexual assault, while still preventing destruction of crime scene information.
38.0	**Non-Traumatic Musculoskeletal Disorders:** Demonstrate a fundamental depth, foundational breadth of the assessment and management of non-traumatic fractures for all age groups. – The student will be able to:
	38.01 Review the basic anatomy and physiology of the musculoskeletal system.
	38.02 Describe and demonstrate the assessment and management of the patient in all age groups with a non-traumatic musculoskeletal emergency.
39.0	**Diseases of the Eyes, Ears, Nose, and Throat:** Demonstrate a simple depth, simple breadth in recognition and management of nose bleed for all age groups. – The student will be able to:
	39.01 Discuss the recognition and management of an epistaxis.
	39.02 Describe and demonstrate the assessment and management of the patient in all age groups with abnormal conditions affecting the eyes, ears, nose and throat.

40.0	**Shock and Resuscitation:** Demonstrate the application of fundamental knowledge of the causes, pathophysiology, and management of shock and respiratory failure. – The student will be able to:
	40.01 Discuss and identify causes and pathophysiology of the categories of hemorrhage and shock.
	40.02 Discuss and identify causes and pathophysiology of respiratory failure and arrest.
	40.03 Discuss and identify causes and pathophysiology of cardiac failure or arrest.
	40.04 Discuss the various types and degrees of shock.
	40.05 Discuss and identify post resuscitation and management.
	40.06 Explain the system components of CPR, the links in the AHA chain of survival and how each one relates to maximizing the survival of the patient.
	40.07 Show Provider (AHA guidelines) certification required prior to rescuer program completion.
	40.08 Discuss and distinguish the variations and causes between the management of the infant, child, adult and geriatric patient experiencing shock.
	40.09 Define and differentiate compensated and decompensated hemorrhagic shock.
	40.10 Defend the importance of teamwork, experience, and practice in preparation to manage the critical patient.
	40.11 Demonstrate how to perform one and two rescuer CPR, adult, child, and infant.
	40.12 Demonstrate how to perform rescuer level appropriate defibrillation in an adult, child and infant patient.
	40.13 Demonstrate the steps of rescuer level appropriate post resuscitative care.
	40.14 Management and resuscitation of the critical patient.
	40.15 Demonstrate rapid decision making based on differential field diagnosis of the critical patient with a peri-arrest condition.
	40.16 Describe and demonstrate the assessment and management of the patient with hemorrhage and shock.
41.0	**Trauma Overview:** Demonstrate a fundamental depth, foundational breadth of pathophysiology, assessment and management of the trauma patient for all age groups. – The student will be able to:
	41.01 Discuss and define pathophysiology of the trauma patient.
	41.02 List and describe the components of a comprehensive trauma systems and levels of trauma centers.
	41.03 Describe the criteria for different transportation modes to a trauma center.
	41.04 Explain the relationship between mechanism of injury and potential energy, kinetic energy and work in relation to trauma. 41.04.01 Define energy, force, laws of motion 41.04.02 Explain the physics of trauma
	41.05 Define the term blunt and penetrating trauma and provide examples of the mechanism of injury (MOI) that would cause each to

	occur and include: 41.05.01 Effects of high, medium and low velocity penetrating trauma 41.05.02 Primary, secondary, tertiary and miscellaneous blast injuries 41.05.03 Factors to consider of a patient injured in a fall. 41.05.04 Consider all age groups
41.06	Describe the kinematics of penetrating injuries.
41.07	Discuss the role of documentation in trauma.
41.08	Demonstrate the use of the Florida Trauma Alert Criteria, classify various types of trauma patients.
41.09	Discuss and describe significant and non-significant Mechanism of Injury (MOI) and provide examples of each.
41.10	Discuss and describe State of Florida's trauma scorecard methodologies as required in Florida Statute and Florida Administrative Code (F.A.C.).
41.11	Discuss the National Trauma Triage Protocol of injured Patients.
42.0	**Bleeding:** Demonstrate a fundamental depth, foundational breadth of pathophysiology, assessment, and management of bleeding for all age groups. –.The student will be able to:
42.01	Review the anatomy and physiology of the circulatory system.
42.02	Review the different types of bleeding and classes of hemorrhage.
42.03	List signs and symptoms of shock (hypo-perfusion).
42.04	Describe the body's physiologic response to bleeding.
42.05	Review the pathophysiology of hemorrhagic shock.
42.06	Explain the sense of urgency to transport patients that are bleeding and show signs of shock (hypoperfusion).
42.07	Describe and demonstrate the assessment and management of a patient in all age groups with hemorrhagic shock.
42.08	Demonstrate how to apply a commercial tourniquet.
42.09	Formulate a field impression based upon the assessment findings for a patient with hemorrhagic shock.
43.0	**Chest Trauma:** Demonstrate a fundamental depth, simple breadth of pathophysiology, assessment and management of chest trauma for all age groups. – The student will be able to:
43.01	Review the anatomy and physiology of the thoracic/chest cavity and respiratory system.
43.02	Differentiate between a pneumothorax (open, simple and tension) and hemothorax.
43.03	Discuss the pathophysiology and MOI of myocardial injuries, including the following: 43.03.01 pericardial tamponade 43.03.02 myocardial contusion,

	43.03.03 myocardial rupture 43.03.04 commotio cordis
	43.04 Identify the need for rapid intervention and transport of the patient with thoracic injuries.
	43.05 Discuss the pathophysiology and MOI of specific chest wall injuries, including the following: 43.05.01 rib fracture 43.05.02 flail segment 43.05.03 sternal fracture
	43.06 Describe and demonstrate the assessment and management of injuries to the chest wall, lung and myocardial tissue.
	43.07 Identify the need for rapid intervention and transport of the patient with chest wall, lung and myocardial tissue injuries.
	43.08 Formulate a field impression based upon the assessment findings for a patient with chest trauma.
44.0	**Abdominal and Genitourinary Trauma:** Demonstrate a fundamental depth, simple breadth of pathophysiology, assessment and management of abdominal and genitourinary trauma for all age groups. – The student will be able to:
	44.01 Review the anatomy and physiology and of the abdominal cavity and genitourinary (both male and female) system.
	44.02 Describe the abdominal quadrants and the organs found within each quadrant.
	44.03 Describe the differences between hollow and solid organs.
	44.04 Discuss the pathophysiology and MOI for abdominal trauma including hallow and solid injuries.
	44.05 Describe and demonstrate the assessment and management of a patient with a suspected abdominal or genitourinary injury including: 44.05.01 Penetrating 44.05.02 Blunt 44.05.03 Open 44.05.04 Closed
	44.06 Formulate a field impression based upon the assessment findings for a patient with abdominal trauma.
45.0	**Orthopedic Trauma:** Demonstrate a fundamental depth, foundational breadth of pathophysiology, assessment, and management of orthopedic trauma for all age groups. – The student will be able to:
	45.01 Review the anatomy and physiology of the musculo-skeletal system.
	45.02 and Discuss pathophysiology and MOI for orthopedic injury including: 45.02.01 Fractures 45.02.02 Sprains 45.02.03 Strains 45.02.04 Pelvic Injury 45.02.05 Amputation
	45.03 Describe the different types of orthopedic injuries including: 45.03.01 Fractures

	45.03.02 Sprains 45.03.03 Strains 45.03.04 Pelvic Injury 45.03.05 Amputation
45.04	List the primary signs and symptoms of extremity trauma.
45.05	Explain the rationale for stabilization of an open and a closed painful, swollen, deformed extremity.
45.06	Describe and demonstrate the assessment and management of a patient with a suspected orthopedic injury including: 45.06.01 Fractures 45.06.02 Sprains 45.06.03 Strains 45.06.04 Pelvic Injury 45.06.05 Amputation
45.07	Explain the benefits and general guidelines for the following management techniques: 45.07.01 Heat Therapy 45.07.02 Cold Therapy 45.07.03 Splinting
45.08	List the six “Ps” of orthopedic injury assessment.
45.09	Discuss the need for assessment of pulses, motor, and sensation before and after splinting.
45.10	Describe age-associated changes in the bones.
45.11	Discuss the usefulness of the pneumatic anti-shock garment (PASG) in the management of fractures.
45.12	Discuss the out-of-hospital management of dislocation/fractures, including splinting and realignment and sprains and strains.
45.13	Discuss the pathophysiology of replantation.
45.14	Explain the rationale for splinting at the scene versus load and go.
45.15	Demonstrate the proper use of following techniques for a patient with a suspected fracture: 45.15.01 Hard 45.15.02 Improvised 45.15.03 Soft 45.15.04 Traction splints
45.16	Formulate a field impression based upon the assessment findings for a patient with orthopedic trauma.
46.0	**Soft Tissue Trauma:** Demonstrate a fundamental depth, foundational breadth of pathophysiology, assessment, and management of soft tissue trauma for all age groups. – The student will be able to:
46.01	Review anatomy and physiology of the integumentary system to include the layers of the skin.
46.02	Describe the pathophysiology and MOI of wounds, burns, crush injuries and high pressure injection injuries.

46.03	Describe and demonstrate the assessment and management of the following types of closed soft tissue injuries: 46.03.01 wounds 46.03.02 burns 46.03.03 high pressure injection 46.03.04 crush syndrome injuries 46.03.05 compartment syndrome injuries 46.03.06 contusion 46.03.07 hematoma
46.04	Describe and demonstrate the assessment and management of the following types of open soft tissue injuries: 46.04.01 abrasions 46.04.02 lacerations 46.04.03 major arterial lacerations 46.04.04 avulsions, 46.04.05 bites 46.04.06 impaled objects 46.04.07 amputations 46.04.08 incisions 46.04.09 crush injuries 46.04.10 blast injuries 46.04.11 Penetrations/punctures.
46.05	Identify types of burn injuries, including: 46.05.01 thermal burn 46.05.02 inhalation burn 46.05.03 chemical burn 46.05.04 electrical burn 46.05.05 radiation exposure
46.06	Describe the depth classifications of burn injuries, including: 46.06.01 superficial burn 46.06.02 partial-thickness burn 46.06.03 full-thickness burn 46.06.04 Other depth classifications
46.07	Describe methods for determining body surface area percentage of a burn injury including the “rules of nines," the "rules of palms," and other methods.
46.08	Explain how the seriousness of a burn is related to its depth and extent (percent of body surface area (BSA) involved or rule of nines) for patients in all age groups.
46.09	Differentiate and demonstrate the various management techniques for hemorrhage control of open soft tissue injuries, including but not limited to: 46.09.01 direct pressure 46.09.02 pressure dressing 46.09.03 tourniquet application 46.09.04 Hemostatic agents

	46.10 Differentiate between the types of injuries requiring the use of an occlusive versus non- occlusive dressing.
	46.11 Discuss the possible complications of an improperly applied dressing, bandage, tourniquet and hemostatic agents.
	46.12 Describe and demonstrate the assessment and management of specific burn injuries including: 46.12.01 Thermal 46.12.02 Inhalation 46.12.03 Chemical 46.12.04 Electrical 46.12.05 Radiation
	46.13 Formulate a field impression based upon the assessment findings for a patient with soft tissue trauma.
47.0	**Head, Facial, Neck, and Spine Trauma:** Demonstrate a fundamental depth, foundational breadth of pathophysiology, assessment, and management of head, facial, neck and spine trauma for all age groups. – The student will be able to:
	47.01 Review the anatomy and physiology and of the head, face, and neck (non-spinal).
	47.02 Describe the pathophysiology and MOI for head, face, and neck (non-spinal) hemorrhage.
	47.03 Describe and demonstrate the assessment and management of a patient with the following injuries to the head, face and neck (non-spinal): 47.03.01 Penetrating Neck Trauma 47.03.02 Laryngotracheal injury 47.03.03 Skull Fracture 47.03.04 Facial Fracture 47.03.05 Eye Injury (foreign body) 47.03.06 Dental Trauma
	47.04 Recognize and manage life threats due to head, neck and spine trauma.
	47.05 Discuss and demonstrate the rationale and use of the Glasgow Coma Score.
	47.06 Formulate a field impression based upon the assessment findings for a patient with head, facial, and/ or neck (non-spinal) trauma.
48.0	**Nervous System Trauma:** Demonstrate a fundamental depth, foundational breadth of pathophysiology, assessment, and management of nervous system trauma for all age groups. – The student will be able to:
	48.01 Review the anatomy and physiology and of the nervous system.
	48.02 Discuss the pathophysiology and MOI for brain and spinal injury including: 48.02.01 Increased intracranial pressure (ICP) 48.02.02 Concussion 48.02.03 Contusion
	48.03 Describe and demonstrate the assessment and management of a patient with a brain and spinal injury including: 48.03.01 Brain Trauma 48.03.02 Spinal Cord Trauma 48.03.03 Cervical Spine Trauma

	48.04 Explain the rationale for motion restriction of the entire spine when a cervical spine injury is suspected.
	48.05 Explain the rationale for utilizing spinal motion restriction methods apart from the straps on the cots.
	48.06 Explain the rationale for utilizing a short spine motion restriction device when moving a patient from the sitting to the supine position.
	48.07 Given a scenario, defend whether or not to remove a helmet prior to transport of a patient.
	48.08 Demonstrate specific management techniques for a patient with a suspected spinal cord injury.
	48.09 Demonstrate various methods for stabilization and removal of a helmet.
	48.10 Demonstrate documentation of assessment before, during and after spinal motion restriction.
	48.11 Formulate a field impression based upon the assessment findings for a patient with brain and/or spinal trauma.
49.0	**Special Considerations in Trauma:** Demonstrate a fundamental depth, foundational breadth of pathophysiology, assessment and management of trauma patients with special considerations for all age groups. – The student will be able to:
	49.01 Review the anatomy and physiology for the following trauma patients: 49.01.01 pregnant 49.01.02 pediatric 49.01.03 geriatric 49.01.04 cognitively impaired
	49.02 Discuss the pathophysiology and MOI of trauma in the following patients: 49.02.01 pregnant 49.02.02 pediatric 49.02.03 geriatric 49.02.04 cognitively impaired
	49.03 Discuss and demonstrate unique assessment and management considerations for the following trauma patients: 49.03.01 pregnant 49.03.02 pediatric 49.03.03 geriatric 49.03.04 cognitively impaired
	49.04 Formulate a field impression based upon the assessment findings for a patient requiring special considerations.
50.0	**Environmental Emergencies:** Demonstrate a fundamental depth, foundational breadth of pathophysiology, assessment and management of environmental emergencies for all age groups. – The student will be able to:
	50.01 Define drowning and discuss its incidence, rick factors and prevention.
	50.02 Discuss the pathophysiology and MOI of the following: 50.02.01 Drowning and water related incidents 50.02.02 temperature-related illness 50.02.03 bites and envenomation 50.02.04 dysbarism such as high-altitude edema

	50.02.05	diving injuries
	50.02.06	lightning (electrical) injury
	50.02.07	high altitude illness
50.03	Describes and demonstrate the assessment and management for a patient with the following:	
	50.03.01	Drowning and water related incidents
	50.03.02	temperature-related illness
	50.03.03	bites and envenomation
	50.03.04	dysbarism such as high-altitude edema
	50.03.05	diving injuries
	50.03.06	lightning (electrical) injury
	50.03.07	high altitude illness
50.04	Discuss the physics of the gas laws including: Boyle's, Dalton, Henry and Charles.	
50.05	Discuss scene management and provider safety considerations for a submersion, diving, or lightning incident.	
50.06	Explain the five ways a body can lose heat.	
50.07	Identify the species of insects, spiders and snakes in the US that may cause life threatening injuries.	
50.08	Formulate a field impression based upon the assessment findings for a patient with an environmental emergency.	
51.0	**Multi-Systems Trauma:** Demonstrate a fundamental depth, foundational breadth of the pathophysiology, assessment, and management of multi-system trauma and blast injuries. – The student will be able to:	
51.01	Discuss the pathophysiology and MOI of multi-system trauma and blast injuries.	
51.02	Discuss the golden principle of out-of-hospital trauma care.	
51.03	Describe and demonstrate assessment and management considerations for a patient of multi system trauma and blast injuries.	
51.04	Formulate a field impression based upon the assessment findings for a patient with multi systems trauma and/ or blast injuries.	
52.0	**Obstetrics:** Demonstrate a fundamental depth, foundational breadth of management of the obstetric patient within the scope of practice of the EMT. –The student will be able to:	
52.01	Identify and describe the anatomical structures and functions of the female reproductive system and how these structures and functions change during pregnancy.	
52.02	Define the stages of labor and discuss how to assess them.	
52.03	Differentiate between normal delivery, abnormal delivery and complications associated with delivery.	
52.04	Differentiate the management of a patient with pre-delivery emergencies from a normal delivery.	
52.05	State the patient care measures for all stages of labor in a normal (cephalic) delivery for the mother and the newborn.	
52.06	Describe how to care for the newborn post-delivery.	

	52.07 Describe the management of the mother post-delivery.
	52.08 State the patient care measures for all stages of labor in abnormal (non-cephalic) deliveries for the mother and the newborn.
	52.09 Describe the procedures for handling complications of pregnancy.
	52.10 Describe special considerations when meconium is present in amniotic fluid or during delivery.
	52.11 Describe special patient care considerations of a premature baby.
	52.12 Demonstrate how to listen to fetal heart tones.
	52.13 Demonstrate the patient care measures for all stages of labor in a normal (cephalic) delivery for the mother and the newborn.
	52.14 Demonstrate the patient care measures for all stages of labor in abnormal (non-cephalic) deliveries for the mother and the newborn.
	52.15 Demonstrate the procedures for handling complications of pregnancy including pre-eclampsia and eclampsia.
53.0	**Neonatal Care:** Demonstrate a fundamental depth, foundational breadth of management of the newborn and neonatal patient within the scope of practice of the EMT. – The student will be able to:
	53.01 Discuss and demonstrate assessment and management considerations of a neonate.
	53.02 Define the term neonate.
	53.03 Identify the factors that lead to premature birth and low birth weight newborns.
	53.04 Calculate the APGAR score given various newborn situations.
	53.05 Discuss the common signs when ventilator assistance is appropriate for a neonate.
	53.06 Identify and discuss the use of oxygen/airway adjuncts in the neonate.
	53.07 Discuss the steps in resuscitation of a neonate.
	53.08 Discuss the signs of hypovolemia in a newborn.
	53.09 Discuss the effects maternal narcotic usage has on the newborn.
	53.10 Discuss the management/treatment plan for vomiting in the neonate.
	53.11 Discuss the assessment findings associated with common birth injuries in the neonate.
	53.12 Demonstrate assessment of APGAR scoring during a scenario.
	53.13 Demonstrate appropriate assessment technique for examining a neonate.
	53.14 Demonstrate appropriate assisted ventilations for a neonate.

	53.15 Demonstrate appropriate chest compression and ventilation technique for a neonate.
	53.16 Demonstrate the initial steps in resuscitation of a neonate.
	53.17 Demonstrate blow-by oxygen delivery for a neonate.
54.0	**Pediatrics:** Demonstrate a fundamental depth, fundamental breath of management of the pediatric patient within the scope of practice of the EMT. – The student will be able to:
	54.01 Review the anatomy, physiology and pathophysiology, and differences of patients in the pediatric age ranges.
	54.02 Discuss the differences in approaching and assessing patients in the pediatric age ranges.
	54.03 Discuss and demonstrate assessment and management considerations for Sudden Unexplained Infant Death Syndrome (SUIDS).
	54.04 Describe the selection of appropriate airway adjuncts and ventilation devices for infants and children.
	54.05 Discuss complications of improper utilization of airway adjuncts and ventilation devices with infants and children.
	54.06 Describe the common causes, assessment and management of respiratory distress, failure, or arrest in infants and children.
	54.07 Discuss the common causes, assessment and management of hypoperfusion in infants and children.
	54.08 Discuss the common causes, assessment and management of cardiopulmonary arrest in infants and children.
	54.09 Describe the common causes, assessment and management of altered level of consciousness in infants and children.
	54.10 Describe the common causes, assessment and management of trauma in infants and children.
	54.11 Discuss the pathophysiology of hypo-perfusion in infants and children.
	54.12 Describe the common causes, assessment and management of hypoperfusion in infants and children.
	54.13 Describe the common causes, assessment and management of neurological emergencies in infants and children.
	54.14 Demonstrate proper technique for administering blow-by oxygen to infants and children.
	54.15 Demonstrate proper technique for suctioning of infants and children.
	54.16 Demonstrate appropriate use of airway adjuncts and ventilation devices with infants and children.
	54.17 Demonstrate age appropriate basic airway clearing maneuvers for infants and children with a completely obstructed airway.
	54.18 Demonstrate appropriate airway and breathing control maneuvers for infant and child trauma patients.
55.0	**Geriatrics:** Demonstrate a fundamental depth, foundational breadth of management of the geriatric patient within the scope of practice of the EMT. – The student will be able to:
	55.01 Define and discuss the term “geriatrics”.

	55.02	Review the anatomy, physiology and pathophysiology of the Geriatric patient.
	55.03	Discuss common emotional and psychological reactions to aging to include causes and manifestations.
	55.04	Discuss the problems with mobility in the elderly and develop strategies to prevent falls.
	55.05	Discuss factors that may complicate the assessment of the elderly patient including communication issues and methods to overcome them.
	55.06	Describe principles that should be employed when assessing and communicating with the elderly.
	55.07	Describe the common causes, assessment and management of the elderly patient with the following complaints:
	55.07.01	Pulmonary, including pneumonia, chronic obstructive pulmonary diseases, and pulmonary embolism.
	55.07.02	Cardiovascular, including myocardial infarction, heart failure, dysrhythmias, aneurism, and hypertension.
	55.07.03	Nervous system, including cerebral vascular disease, delirium, dementia, Alzheimer's disease and Parkinson's disease.
	55.07.04	Endocrine system, including diabetes and thyroid diseases.
	55.07.05	Gastrointestinal problems.
	55.07.06	Toxicological problems including alcohol/drug abuse, and polypharmacy errors.
	55.07.07	Environmental considerations.
	55.07.08	Traumatic injuries, including orthopedic injuries, burns and head injuries.
56.0	**Patients with Special Challenges:** Demonstrate a simple depth, simple breadth of management of the patient with special challenges. – The student will be able to:	
	56.01	Define child abuse / neglect.
	56.02	Define children with special health care needs.
	56.03	Discuss the pathophysiology of abuse and neglect in infants and children.
	56.04	Discuss the assessment and management/treatment plan for abuse and neglect in infants and children, including documentation and reporting.
	56.05	Discuss the pathophysiology of children with special health care needs including technology.
	56.06	Discuss the assessment management/treatment plan for children with special health care needs including technology assisted children.
	56.07	Discuss the incidence and categories of abuse and assault.
	56.08	Describe the characteristics associated with the profile of the typical abuser of a spouse, elder and child.

56.09	Identify the profile of the "at-risk" spouse, elder and child.
56.10	Discuss special considerations for the assessment and management of the abused patient.
56.11	Discuss the legal aspects of documentation and mandatory reporting associated with abused and assaulted patient.
56.12	Discuss considerations for approach, assessment and treatment of patients with the following impairments/disabilities: (LIST) Hearing, Vision, and Speech.
56.13	Describe paraplegia/quadriplegia.
56.14	Recognize the patient with a developmental disability.
56.15	Recognize the patient with Down's syndrome.
56.16	Describe the following diseases/illnesses: 56.16.01 Cerebral palsy 56.16.02 Cystic fibrosis 56.16.03 Spina bifida 56.16.04 Patients with a previous head injury
56.17	Identify a patient that is terminally ill.
56.18	Differentiate between the role of EMS provider and the role of the home care provider.
56.19	Discuss the aspects of home care that impact quality of the care for a given patient.
56.20	List complications commonly seen in the home care patients, which result in their hospitalization.
56.21	Define hospice care and comfort care.
56.22	List the stages of the grief process and relate them to an individual in hospice care.
56.23	Describe airway maintenance devices typically found in the home care environment.
56.24	Describe indwelling catheters, implanted central IV ports and central line monitoring.
56.25	Identify failure of GI/GU devices found in the home care setting.
56.26	Identify failure of ventilating devices found in the home care setting.
56.27	Identify failure of vascular access devices found in the home care setting.
56.28	Demonstrate the ability to assess a spouse, elder or child abused patient.
56.29	Demonstrate the ability to assess a sexually assaulted patient.
56.30	Demonstrate the assessment of a patient with a sensory deficit or developmental disability.

	56.31 Develop a treatment and management plan of the elderly psychiatric patient, including depression and suicide.
57.0	**Principles of Safely Operating a Ground Ambulance:** Demonstrate a simple depth, foundational breadth of risks and responsibilities of transport. – The student will be able to:
	57.01 Discuss the importance of performing regular vehicle and equipment inspection.
	57.02 Demonstrate how to perform a daily inspection of an ambulance.
	57.03 Describe the general provisions of Florida laws relating to the operation of the ambulance and privileges.
	57.04 Identify current local and state standards which influence ambulance design.
	57.05 Demonstrate how to place a patient in, and remove a patient from an ambulance.
	57.06 Discuss the guidelines for operating an ambulance safety during emergency and non-emergency situation/incident.
	57.07 Discuss considerations that are required for ensuring scene safety, including personal safety, patient safety, and traffic control.
	57.08 Demonstrate how to clean and disinfect the ambulance and equipment.
58.0	**Incident Management:** Demonstrate a fundamental depth, fundamental breadth of establishing and working within the incident management system. – The student will be able to:
	58.01 Explain the need for the incident management system (IMS)/incident command system (ICS) in managing emergency medical services incidents.
	58.02 Define the term disaster management.
	58.03 Discuss the importance of NIMS (National Incidence Management System).
	58.04 Describe the functional components of the incident management system in terms of the following: 58.04.01 Command 58.04.02 Finance 58.04.03 Logistics 58.04.04 Operations 58.04.05 Planning
	58.05 Differentiate between singular and unified command and when each is most applicable.
	58.06 Describe the role of command.
	58.07 Describe the need for transfer of command and procedures for transferring it.
	58.08 List and describe the functions of the following groups and leaders in ICS as it pertains to EMS incidents: 58.08.01 safety 58.08.02 logistics 58.08.03 rehabilitation 58.08.04 staging,

	58.08.05 treatment 58.08.06 triage 58.08.07 transportation 58.08.08 extrication/rescue 58.08.09 morgue 58.08.10 communications	
	58.09	Describe techniques used to allocate patients to hospitals and track them.
	58.10	List the physical and psychological signs of critical incident stress.
	58.11	Explain the organizational benefits for having standard operating procedures (SOPs) for using the incident management system or incident command system.
59.0	**Multiple Casualty Incidents:** Demonstrate a simple depth, foundational breadth of responding to an emergency during a multiple casualty incident. – The student will be able to:	
	59.01	Describe essential elements of scene size-up when arriving at a potential MCI.
	59.02	Describe the role of the rescuers and EMS systems in planning for MCIs and disasters.
	59.03	Describe the role of the physician at multiple casualty incidents.
	59.04	Define triage and describe the principles of triage.
	59.05	Describe the START (simple triage and rapid treatment) method of initial triage.
	59.06	Describe techniques used to allocate patients to hospitals and track them.
	59.07	List and describe the essential equipment to provide logistical support to MCI operations, including but not limited to: 59.07.01 Airway 59.07.02 respiratory and hemorrhage control 59.07.03 Burn management 59.07.04 Patient packaging/immobilization
	59.08	List the physical and psychological signs of critical incident stress.
	59.09	Describe the role of critical incident stress management sessions in MCIs.
	59.10	Explain the organizational benefits for having standard operating procedures (SOPs) for using the incident management system or incident command system.
	59.11	Demonstrate the use of local/regional triage tagging system used for primary and secondary triage.
	59.12	Given a classroom simulation of a MCI with 5-10 patients, fulfill the role of triage group leader.
60.0	**Air Medical:** Demonstrate a simple depth, simple breadth of safe air medical operations and criteria for utilizing air medical response. – The student will be able to:	
	60.01	Discuss safe air medical operations.

	60.02 Describe key scene safety considerations when preparing for a helicopter medivac, including establishing a landing zone and approaching the aircraft.
	60.03 Describe the capabilities, protocols, and methods for accessing air medical transport.
	60.04 Describe the advantages and disadvantages of air medical transport.
	60.05 Identify the conditions/situations in which air medical transport should be considered.
	60.06 Assess personal practices relative to air medical operations which may affect the safety of the crew, the patient and bystanders.
	60.07 Perform setting up an air medical helicopter landing zone.
61.0	**Vehicle Extrication:** Demonstrate a simple depth, simple breadth for safe vehicle extrication and use of simple hand tools. – The student will be able to:
	61.01 Describe the role of the EMT in patient rescue and vehicle extrication.
	61.02 Describe personal and patient safety during vehicle extrication.
	61.03 Explain the difference between simple access and complex access in vehicle extrication.
	61.04 Discuss patient care consideration related to assisting with rapid extrication, providing emergency care to the trapped patient and removing and transferring a patient.
	61.05 Discuss the use of simple hand tools used for vehicle extrication.
	61.06 Describe the effects of traffic flow on the highway rescue incident including limited access superhighways and regular access highways.
	61.07 List and describe the hazards associated with the following auto/ truck components: 61.07.01 energy absorbing bumpers 61.07.02 air bag/supplemental restraint systems 61.07.03 catalytic converters and conventional fuel systems 61.07.04 stored energy 61.07.05 alternate fuel systems
	61.08 Describe methods for emergency stabilization using rope, cribbing, jacks, spare tire, and come-a-longs for vehicles.
	61.09 Describe the electrical hazards commonly found at highway incidents (above and below ground).
	61.10 Explain the difference between tempered and safety glass, identify its locations on a vehicle and how to break it safely.
	61.11 Explain typical door anatomy and methods to access through stuck doors.
	61.12 Explain SRS or "air bag" systems and methods to neutralize them.
	61.13 Demonstrate the use of wood cribbing to stabilize a vehicle.
	61.14 Demonstrate how to gain access to a patient by using a spring- loaded center punch.

62.0	**Hazardous Materials Awareness:** Demonstrate a simple depth, simple breadth of risks and responsibilities of operating in a cold zone at a hazardous material or other special incident. – The student will be able to:
62.01	Identify resources for substance identification, decontamination and treatment information, including but not limited to the following: 62.01.01 poison control center 62.01.02 medical control 62.01.03 material safety data sheets (MSDS), 62.01.04 reference textbooks 62.01.05 computer databases 62.01.06 Computer-Aided Management of Emergency Operations (CAMEO) 62.01.07 CHEMTREC 62.01.08 technical specialists 62.01.09 Agency for toxic substances and disease registry
62.02	Explain primary and secondary contamination risk.
62.03	List and describe the following routes of exposure:
62.03.01	topical
62.03.02	respiratory
62.03.03	gastrointestinal
62.03.04	parenteral
62.04	Explain how the substance and route of contamination alters triage and decontamination methods.
62.05	List and explain the common signs, symptoms and treatment for the following substances: 62.05.01 corrosives (acids/alkalis) 62.05.02 pesticides (carbamates / organophosphates), 62.05.03 chemical asphyxiants (cyanide/carbon monoxide) 62.05.04 hydrocarbon solvents (xylene, methylene chloride)
62.06	Identify local facilities and resources capable of treating patients
62.07	Determine the appropriate level of PPE by considering the following: 62.07.01 Types 62.07.02 Application 62.07.03 Use and Limitations 62.07.04 Use of chemical compatibility chart
62.08	Explain specific decontamination procedures.
62.09	Demonstrate the donning and doffing of appropriate PPE.
62.10	Set up and demonstrate an emergency two-step decontamination process.

	62.11 Identify DOT Labels, placards and markings that are used to designate HAZMAT materials.
	62.12 Demonstrate the ability to use a variety of reference materials to identify a HAZMAT material.
63.0	**Mass Casualty Incidents Due to Terrorism and Disaster:** Demonstrate a simple depth, simple breadth of risks and responsibilities of operating on the scene of a natural or man-made disaster. – The student will be able to:
	63.01 Describe the role of the EMT on the scene of a natural or man-made disaster.
	63.02 Define the different types of terrorism and provide examples of incidents of each.
	63.03 Describe personal and patient safety during a natural or man-made disaster.
	63.04 Describe the factors related to ensuring situational safety at the site of a disaster and the procedures required.
	63.05 Discuss the National Terrorism Advisory System.
	63.06 Discuss factors to consider when responding to a terrorist situation.
	63.07 Discuss important actions to take at the scene of a terrorist event such as: 63.07.01 scene safety 63.07.02 personal protection 63.07.03 notification procedures 63.07.04 available resources 63.07.05 working with in the command system
	63.08 List the main categories of weapons of mass destruction.
	63.09 Discuss the different types of chemical agents and their signs and symptoms.
	63.10 Discuss the treatment and management of patients exposed to various types of chemical agents and radiation.
	63.11 Define the different types of radiations and their effect on the human body.
	63.12 Demonstrate the use of a nerve agent antidote kit.

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 **Bureau of Fire Standards and Training (BFST)** is responsible for establishing uniform minimum standards for the employment and training of firefighters and volunteer firefighters and for establishing and maintaining firefighting training programs, curricula requirements, and certification of training schools and training school instructors.

The Curriculum Development staff is responsible for the design, implementation, maintenance, evaluation, and revision of job-related curricula for the Bureau of Fire Standards and Training (BFST) approved firefighters and volunteer firefighters, advanced, specialized, and specialized instructor training programs for fire fighters.

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)

HOSA: Future Health Professionals and Florida Public Service Association (FPSA) 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.

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.

Basic Skills

In a Career Certificate Program offered for 450 hours or more, in accordance with Rule 6A-10.040, F.A.C., the minimum basic skills grade levels required for postsecondary adult career and technical students to complete this program are: Mathematics 10, Language 10, and Reading 10. These grade level numbers correspond to a grade equivalent score obtained on a state designated basic skills examination.

Adult students with disabilities, as defined in Section 1004.02(7), Florida Statutes, may be exempted from meeting the Basic Skills requirements (Rule 6A-10.040). Students served in exceptional student education (except gifted) as defined in s. 1003.01(3) (a), F.S., may also be exempted from meeting the Basic Skills requirement. Each school district and Florida College must adopt a policy addressing procedures for exempting eligible students with disabilities from the Basic Skills requirement as permitted in Section 1004.91(3), F.S.

Students who possess a college degree at the Associate of Applied Science level or higher; who have completed or are exempt from the college entry-level examination; or who have passed a state, national, or industry licensure exam are exempt from meeting the Basic Skills requirement (Rule 6A-10.040, F.A.C.) Exemptions from state, national or industry licensure are limited to the certifications listed on the Basic Skills and Licensure Exemption List which may be accessed from the CTE Program Resources page.

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: **Radiologic Technology**
Program Type: **Career Preparatory**
Career Cluster: **Health Science**

This program is only authorized to be offered by Marion Technical College

Career Certificate Program	
Program Number	W170210
CIP Number	0351090706
Grade Level	30, 31
Standard Length	2700 clock hours
Teacher Certification	Refer to the **Program Structure** section.
CTSO	HOSA: Future Health Professionals
SOC Codes (all applicable)	29-2034 Radiologic Technologists
Basic Skills Level	Mathematics: 11 Language: 11 Reading: 11

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 Health Science 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 Health Science career cluster.

The purpose of this program is to prepare students for employment as Radiographers, Radiologic Technologists SOC Code 29-2034 (Radiologic Technologists/Technicians) or to provide supplemental training for persons previously or presently employed in these occupations.

The content includes but is not limited to introduction to radiography, medical ethics and law, medical terminology, methods of patient care, human structure and function, radiographic procedures, principles of radiographic exposure, imaging equipment, image processing, radiation physics,

principles of radiation protection, principles of radiation biology, radiographic pathology, introduction to quality assurance, introduction to computer literacy, and clinical education. The curriculum includes a plan for well-structured competency based clinical education.

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 3 occupational completion points.

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	RTE0004	Fundamentals of Radiologic Technology	TEC X Ray @7 7G	96 hours	29-2034
	RTE0410	Radiographic Imaging & Exposure I		96 hours	
	RTE0505	Radiographic Procedures I		96 hours	
	RTE0809	Clinical Education I		312 hours	
B	RTE0450	Radiographic Imaging & Exposure II		90 hours	
	RTE0506	Radiographic Procedures II		90 hours	
	RTE0507	Radiographic Procedures III		66 hours	
	RTE0819	Clinical Education II		504 hours	
C	RTE0015	Advanced Modality Imaging		54 hours	
	RTE0780	Radiographic Pathology& Directed Research		86 hours	
	RTE0610	Radiation Physics		86 hours	
	RTE0829	Clinical Education III		220 hours	
	RTE0839	Advanced Clinical Education IV		340 hours	
	RTE0380	Radiation Biology & Radiation Protection		51 hours	
	RTE0939	Radiography Seminar		153 hours	
	RTE0849	Advanced Clinical Education V		360 hours	

Regulated Programs

The program must be approved by the Department of Health, Bureau of Radiation Control so that the graduate is eligible for licensure in Florida as a Certified Radiologic Technologist. As specified in Chapter 468 Part IV F.S. and Chapter 64E-3 F.A.C.

The program must be accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 North Wacker Drive, Suite 900, Chicago, Illinois 60606-2901, (312) 704-5300, or any other appropriate accrediting agency acceptable to the American Registry of Radiologic Technologists (ARRT).

National Standards (NS)

Programs identified as having Industry or National Standards have been cross walked with the corresponding standards and/or benchmarks.

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 a functional knowledge of medical terminology required in radiologic science.
02.0 Convey an understanding of the ethics and laws that impact Radiologic Sciences at both the state and federal levels.
03.0 Demonstrate introductory knowledge of radiologic science and the health care system.
04.0 Demonstrate knowledge of and perform patient care procedures required in radiologic sciences.
05.0 Demonstrate an understanding of pharmacology and venipuncture procedures as it relates to radiologic science.
06.0 Demonstrate proficiency in the skills, techniques and knowledge required for image analysis.
07.0 Demonstrate proficiency in the skills, techniques and knowledge required to operate imaging equipment.
08.0 Convey an understanding of the principles of imaging and the various factors that contribute to accuracy including x-ray production, image formation, and factors related to radiographic quality.
09.0 Demonstrate an understanding of the structure and function of the human body with a focus on the muscular, endocrine, respiratory, urinary and appendicular skeletal systems.
10.0 Demonstrate proficiency in the skills, techniques and knowledge required to perform accurate radiographic procedures.
11.0 Demonstrate the proficiency in the skills and knowledge required of clinical practice.
12.0 Convey an understanding of the principles of imaging and the various factors that contribute to accuracy including image acquisition and processing, scatter radiation control, and image evaluation.
13.0 Demonstrate an understanding of the concepts and equipment required of digital image acquisition and display.
14.0 Demonstrate an understanding of the structure and function of the human body with a focus on the axial skeletal system.
15.0 Demonstrate an understanding of the structure and function of the human body with a focus on the circulatory/cardiovascular, digestive and reproductive systems.
16.0 Demonstrate proficiency in the skills, techniques and knowledge required to perform accurate fluoroscopic procedures.
17.0 Demonstrate an understanding of the structure and function of the human body with a focus on the nervous system.
18.0 Demonstrate introductory knowledge of computed tomography.
19.0 Demonstrate appropriate venipuncture technique.
20.0 Demonstrate an understanding of radiographic pathology.
21.0 Demonstrate an understanding of how radiation is produced and the characteristics of different classifications of radiation.
22.0 Demonstrate an understanding of the structure and function of the human body including the immune system and chemical composition of the body.
23.0 Demonstrate an understanding of the integral aspects of radiation biology required of a radiographer.
24.0 Convey the importance for proper radiation protection and the precautions radiographers should take to prevent unnecessary exposure to themselves and patients.

Florida Department of Education
Student Performance Standards

Program Title: **Radiologic Technology**
PSAV Number: **W170210**

Course Number: RTE0004 **Occupational Completion Point: A** **Fundamentals of Radiologic Technology – 96 Hours – SOC Code 29-2034**	
01.0	Demonstrate a functional knowledge of medical terminology required in radiologic science. – The student will be able to:
01.01	Apply the word-building process for medical terminology.
01.02	Interpret medical abbreviations and symbols.
01.03	Critique orders and requests.
01.04	Define medical imaging and radiation.
01.05	Translate medical terms, abbreviations and symbols into layman's terms.
02.0	Convey an understanding of the ethics and laws that impact Radiologic Sciences at both the state and federal levels. – The student will be able to:
02.01	Discuss the origins of medical ethics.
02.02	Apply medical/professional ethics in the context of a broader societal ethic.
02.03	Explain the role of ethical behavior in health care delivery.
02.04	Explain concepts of personal honesty, integrity, accountability, competence and compassion as ethical imperatives in health care.
02.05	Identify legal and professional standards and relate each to practice in health professions.
02.06	Identify specific situations and conditions that give rise to ethical dilemmas in health care.
02.07	Explain select concepts embodied in the principles of patients' rights, the doctrine of informed (patient) consent and other issues related to patients' rights.
02.08	Explain the legal implications of professional liability, malpractice, professional negligence and other legal doctrines applicable to professional practice.

	02.09 Describe the importance of timely, accurate, and comprehensive methods of documentation as a legal and ethical imperative.
	02.10 Explore theoretical situations and questions relating to the ethics of health care delivery.
	02.11 Explain legal terms, principles, doctrines and laws specific to the radiologic sciences.
	02.12 Outline the conditions necessary for a valid malpractice claim in medical imaging.
	02.13 Describe institutional and professional liability protection typically available to the radiographer.
	02.14 Describe the components and implications of informed consent.
	02.15 Identify standards for informed consent and disclosure of protected health information (PHI).
	02.16 Describe how consent forms are used relative to specific radiographic procedures.
	02.17 Differentiate between civil and criminal liability.
	02.18 Define tort and explain the differences between intentional and unintentional torts.
03.0	Demonstrate introductory knowledge of radiologic science and the health care system. – The student will be able to:
	03.01 Identify health science professions that participate in the total health care of the patient.
	03.02 Identify various settings involved in the delivery of health care.
	03.03 Discuss the reimbursement/payment options for health care services.
	03.04 Discuss the role and value of a mission statement to the operation of a healthcare institution.
	03.05 Describe relationships and interdependencies of departments within a health care institution.
	03.06 Discuss the responsibilities and relationships of all personnel in the radiology department.
	03.07 Differentiate between quality assurance (QA) and continuous quality improvement (CQI).
	03.08 Differentiate between accreditation types.
	03.09 Define credentialing, national certification, registration, and state licensure.
	03.10 Discuss career opportunities and advancement for the radiographer.
	03.11 Identify the benefits of continuing education as related to improved patient care and professional development.
	03.12 Describe the types, purpose, and functions of professional organizations (ASRT).

	03.13 Identify educational and certifications requirements.
	03.14 Identify state and federal regulatory agencies.
04.0	Demonstrate knowledge of and perform patient care procedures required in radiologic sciences. – The student will be able to:
	04.01 Identify the responsibilities of the health care facility and members of the health care team.
	04.02 List the general responsibilities of the radiographer.
	04.03 Describe the practice standards for the radiographer as defined by the ASRT and state licensure.
	04.04 Differentiate between culture and ethnicity.
	04.05 Explain perceptions of dying and death from the viewpoint of both patient and radiographer.
	04.06 Identify methods for determining the correct patient for a given procedure.
	04.07 Explain the use of various communication models.
	04.08 Explain specific aspects of a radiographic procedure to the patient.
	04.09 Demonstrate correct principles of body mechanics applicable to patient care.
	04.10 Demonstrate techniques for specific types of patient transfer.
	04.11 Demonstrate select procedures to turn patients who have various health conditions.
	04.12 Describe immobilization techniques for various types of procedures and patient conditions.
	04.13 Describe specific patient safety measures and concerns.
	04.14 Explain the purpose, legal considerations and procedures for incident reporting.
	04.15 Describe methods to evaluate patient physical status.
	04.16 List the information to be collected prior to a patient examination.
	04.17 Describe vital signs and lab values used to assess the condition of the patient, including sites for assessment and normal values.
	04.18 Define terms related to infection control.
	04.19 Describe the importance of standard precautions and isolation procedures, including sources and modes of transmission of infection and disease and institutional control procedures.
	04.20 Identify symptoms related to specific emergency situations.

	04.21	Describe the institution's emergency medical code system and the role of the student during a medical emergency.
	04.22	Explain the age-specific considerations necessary when performing radiographic procedures.
	04.23	Describe appropriate procedures for management of various types of trauma situations.
	04.24	Describe the symptoms and medical interventions for a patient with a contrast agent reaction.
	04.25	Explain the role of the radiographer in patient education.
	04.26	Describe the patient preparation for contrast studies.
	04.27	Identify specific types of tubes, lines, catheters and collection devices.
	04.28	Outline the steps in the operation and maintenance of suction equipment.
	04.29	Outline the steps in the operation and maintenance of oxygen equipment and demonstrate proper use.
	04.30	Demonstrate competency in basic life support (BLS).
	04.31	Describe the steps in performing various mobile procedures.
	04.32	Describe the special problems faced in performing procedures on a patient with a tracheotomy and specific tubes, drains and catheters.
	04.33	Describe the procedure for producing diagnostic images in the surgical suite.
	04.34	Explain the appropriate radiation protection required when performing mobile/surgical radiography.
05.0	Demonstrate an understanding of pharmacology and venipuncture procedures as it relates to radiologic science. – The student will be able to:	
	05.01	Distinguish between the chemical, generic and trade names of various drugs.
	05.02	Describe the pharmacokinetic, pharmacodynamics and pharmacogenetic principles of drugs.
	05.03	Explain the uses and impact on the patient of different categories of drugs.
	05.04	Define the categories of contrast agents and give specific examples for each category.
	05.05	Explain the pharmacology of contrast agents.
	05.06	Describe methods and techniques for administering various types of contrast agents.
	05.07	Identify and describe the routes of drug administration.

Course Number: RTE0410 **Occupational Completion Point: A** **Radiographic Imaging & Exposure I – 96 Hours – SOC Code 29-2034**	
06.0	Demonstrate proficiency in the skills, techniques and knowledge required for image analysis. – The student will be able to:
06.01	Discuss the elements of a radiographic image.
06.02	Identify anatomy on radiographic images.
06.03	Apply a problem-solving process used for image analysis.
06.04	Describe an effective image analysis method.
06.05	Describe the role of the radiographer in image analysis.
06.06	Apply the process for evaluating images for adequate image receptor exposure, exposure indicator, contrast/greyscale/spatial resolution, identification markers, and appropriate use of beam restriction.
06.07	Summarize the importance of proper positioning.
06.08	Discuss the impact of patient preparation on the resulting radiographic image.
06.09	Identify common equipment malfunctions that affect image quality, and corrective action.
06.10	Differentiate between technical factor problems, procedural factor problems and equipment malfunctions.
06.11	Critique images for appropriate technical, procedural and pathologic factors, and employ corrective actions if necessary.
06.12	Differentiate images produced by various modalities.
06.13	Apply a process for evaluating images for acceptable limits of distortion, image artifacts, radiation fog, noise, and gross exposure.
07.0	Demonstrate proficiency in the skills, techniques and knowledge required to operate imaging equipment. – The student will be able to:
07.01	Describe potential difference, current and resistance.
07.02	Describe the general components and functions of the tube and filament circuits.
07.03	Compare generators in terms of radiation produced and efficiency.
07.04	Discuss mobile and fixed radiographic equipment in terms of purpose, components, types and applications.
07.05	Demonstrate operation of various types of fixed and mobile radiographic equipment.
07.06	Discuss fixed, fluoroscopy and mobile equipment in terms of purpose, components, types and applications.

	07.07 Describe the components and function of automatic exposure control (AEC) devices.
	07.08 Demonstrate proper use of AEC devices.
	07.09 Describe the components of diagnostic x-ray tubes.
	07.10 Explain methods used to extend x-ray tube life.
	07.11 Explain image-intensified, flat panel, and pulsed fluoroscopy.
	07.12 Indicate the purpose, construction and application of fluoroscopic monitor.
	07.13 Differentiate between quality assurance (QA) and quality control (QC).
	07.14 List the benefits of a quality control management to the patient and to the department.
	07.15 Evaluate the results of standard QC tests.
	07.16 Discuss the image appearance and basic principles of operation for equipment used in various imaging modalities.
	07.17 Describe continuous quality improvement (CQI).
	07.18 Describe the components of the various types of display monitors.
	07.19 Compare monitor types (e.g. acquisition, display).
	07.20 Discuss quality control (QC) for imaging equipment and accessories.
	07.21 Discuss the appropriate use of electronic masking.
	07.22 Recognize and compare basic equipment used in various imaging modalities.
08.0	Convey an understanding of the principles of imaging and the various factors that contribute to accuracy including x-ray production, image formation, and factors related to radiographic quality. – The student will be able to:
	08.01 Discuss practical considerations in setting standards for acceptable image quality.
	08.02 Assess radiographic exposure on radiographic images.
	08.03 Analyze the relationships of factors that control and affect image exposure.
	08.04 Critique the radiographic contrast within various radiographic images.
	08.05 Analyze the relationship of factors that control and affect radiographic contrast.
	08.06 Critique spatial resolution on various radiographic images.

08.07	Analyze the relationships of factors that control and affect spatial resolution.
08.08	Differentiate between size and shape distortion.
08.09	Perform calculations to determine image magnification and percent magnification.
08.10	Summarize the relationship of factors that control and affect distortion.
08.11	Explain the rationale for using beam restriction devices.
08.12	Describe the operation and applications for different types of beam restriction.
08.13	Explain how beam filtration affects x-ray beam intensity, beam quality and patient exposure.
08.14	Describe the change in the half-value layer (HVL) when filtration is added or removed.
08.15	Describe the impact of sampling frequency on spatial resolution.
08.16	Define sampling frequency.
08.17	Describe the impact of detector element size on spatial resolution.
08.18	Describe the Nyquist-Shannon theorem as it relates to sampling frequency.
08.19	Describe the process of image stitching.

Course Number: RTE0505 **Occupational Completion Point: A** **Radiographic Procedures I - 96 Hours – SOC Code 29-2034**	
09.0	Demonstrate an understanding of the structure and function of the human body with a focus on the muscular, endocrine, respiratory, urinary and appendicular skeletal systems. – The student will be able to:
09.01	Discuss the basics of anatomical nomenclature.
09.02	Classify tissue types, describe the functional characteristics of each and give examples of their location within the human body.
09.03	Describe the composition and characteristics of bone.
09.04	Identify and locate the bones of the human skeleton.
09.05	Identify bony processes and depressions found on the human skeleton.
09.06	Summarize the functions of the skeletal system.
09.07	Label different types of articulations.

09.08	Compare the types, locations and movements permitted by the different types of articulations.
09.09	Examine how muscle is organized at the gross and microscopic levels.
09.10	Differentiate between the structures of each type of muscle tissue.
09.11	State the function of each type of muscle tissue.
09.12	Name and locate the major muscles of the skeleton.
09.13	Define endocrine.
09.14	Describe the characteristics and functions of the components that comprise the endocrine system.
09.15	Differentiate between peritoneum, omentum and mesentery.
09.16	Label the components of the respiratory system.
09.17	Describe the physiology and regulation of respiration.
09.18	Label the parts of the kidneys, ureters, bladder and urethra.
09.19	Describe the function of each organ of the urinary system.
09.20	Describe the composition and formation of urine.
09.21	Explain micturition.
09.22	Identify major sectional anatomical structures found within the head and neck, thorax and abdomen.
10.0	Demonstrate proficiency in the skills, techniques and knowledge required to perform accurate radiographic procedures. – The student will be able to:
10.01	Describe standard positioning terms.
10.02	Demonstrate proper use of positioning aids.
10.03	Discuss general procedural considerations for radiographic exams.
10.04	Identify methods and barriers of communication and describe how each may be used or overcome effectively during patient education.
10.05	Explain radiographic procedures to patients/family members.
10.06	Modify directions to patients with various communication problems.
10.07	Develop an awareness of cultural factors that necessitate adapting standard exam protocols.

10.08	Adapt general procedural considerations to specific clinical settings.
10.09	Identify the structures demonstrated on routine radiographic images.
10.10	Adapt radiographic procedures for special considerations.
10.11	Simulate radiographic procedures on a person or phantom in a laboratory or clinical setting.
10.12	Evaluate images for positioning, centering, appropriate anatomy and overall image quality.
10.13	Discuss equipment and supplies necessary to complete basic radiographic procedures.
10.14	Explain the routine and special positions and projections for all radiographic procedures.
10.15	Describe the general purpose of radiographic studies.
10.16	Apply general radiation safety and protection practices associated with radiographic examinations.
10.17	Define region of interest (ROI).
10.18	Define basic terms related to indications and contraindications related to imaging studies.

Course Number: RTE0809
Occupational Completion Point: A
Clinical Education I – 312 Hours – SOC Code 29-2034

Clinical Education I provides a foundational practicum in which students are expected to apply skills learned in *Fundamentals of Radiologic Technology* and *Radiographic Procedures I.* The course objectives in *Clinical Education I* repeat in subsequent practicums of clinical education due to the progressive approach to student competency and proficiency. This course is a necessary prerequisite for advancing to *Clinical Education II.*

The content and clinical practice experiences within the course of *Clinical Education I* are designed to sequentially develop, apply, critically analyze, integrate, synthesize and evaluate concepts and theories in the performance of radiologic procedures. Through structured, sequential and competency-based clinical assignments, students will adopt and apply concepts of team practice, radiation protection, and become skillful in patient-centered clinical practice while developing professional expertise and conduct that are discussed, examined and evaluated.

Clinical Education I provides students with practical experiences in patient care and assessment, fosters competent performance of radiologic imaging and impacts total quality management standards. Levels of competency and performance outcomes are measured at six-week intervals. This is designed to ensure the well-being of patients before, during and after performance of radiologic procedures. The evaluative measurement tools provide a mechanism that ensures progression of student competency and proficiency.

11.0 Demonstrate the proficiency in the skills and knowledge required of clinical practice. – The student will be able to:

11.01	Exercise the priorities required in daily clinical practice.
11.02	Execute medical imaging procedures under the appropriate level of supervision.
11.03	Adhere to team practice concepts that focus on organizational theories, roles of team members and conflict resolution.
11.04	Adapt to changes and varying clinical situations.
11.05	Describe the role of health care team members in responding/reacting to a local or national emergency.
11.06	Provide patient-centered, clinically effective care for all patients regardless of age, gender, disability, special needs, ethnicity or culture.
11.07	Integrate the use of appropriate and effective written, oral and nonverbal communication with patients, the public and members of the health care team in the clinical setting.
11.08	Integrate appropriate personal and professional values into clinical practice.
11.09	Recognize the influence of professional values on patient care.
11.10	Explain how a person's cultural beliefs toward illness and health affect his or her health status.
11.11	Use patient and family education strategies appropriate to the comprehension level of the patient/family.
11.12	Provide desired psychosocial support to the patient and family.
11.13	Demonstrate competent assessment skills through effective management of the patient's physical and mental status.
11.14	Respond appropriately to medical emergencies.
11.15	Examine demographic factors that influence patient compliance with medical care.
11.16	Adapt procedures to meet age-specific, disease-specific and cultural needs of patients.
11.17	Assess the patient and record clinical history.
11.18	Demonstrate basic life support procedures.
11.19	Use appropriate charting/electronic documentation methods.
11.20	Recognize life-threatening electrocardiogram (ECG) tracing.
11.21	Apply standard and transmission-based precautions.
11.22	Apply the appropriate medical asepsis and sterile technique.
11.23	Demonstrate competency in the principles of radiation protection standards.

11.24	Apply the principles of total quality management.
11.25	Report equipment malfunctions.
11.26	Examine procedure orders for accuracy and make corrective actions when applicable.
11.27	Demonstrate safe, ethical and legal practices.
11.28	Integrate the radiographer's practice standards into clinical practice setting.
11.29	Maintain patient confidentiality standards and meet HIPAA requirements.
11.30	Demonstrate the principles of transferring, positioning and immobilizing patients.
11.31	Comply with departmental and institutional response to emergencies, disasters and accidents.
11.32	Differentiate between emergency and non-emergency procedures.
11.33	Adhere to national, institutional and departmental standards, policies and procedures regarding care of patients, providing radiologic procedures and reducing medical errors.
11.34	Select technical factors to produce quality diagnostic images with the lowest radiation exposure possible.
11.35	Critique images for appropriate anatomy, image quality and patient identification.
11.36	Determine corrective measures to improve inadequate images.

Course Number: RTE0450 **Occupational Completion Point: B** **Radiographic Imaging & Exposure II - 90 Hours – SOC Code 29-2034**	
12.0	Convey an understanding of the principles of imaging and the various factors that contribute to accuracy including image acquisition and processing, scatter radiation control, and image evaluation. – The student will be able to:
12.01	Summarize the relationship of factors affecting scattered radiation.
12.02	Evaluate the effects of scattered radiation on the image.
12.03	Compare grid types.
12.04	Select the most appropriate grid for a given clinical situation.
12.05	Interpret grid efficiency in terms of grid ratio and frequency.
12.06	Summarize the factors that influence grid cutoff.

	12.07 Evaluate grid artifacts.
	12.08 Explain the use of radiographic technique charts.
	12.09 Explain exposure factor considerations involved in selecting techniques.
	12.10 Compare fixed kilovoltage peak (kVp) and variable kVp systems.
	12.11 Apply the reciprocity law to clinical situations.
	12.12 Apply conversion factors for changes in the following areas: distance, grid, image receptors, reciprocity law and 15 percent rule.
13.0	Demonstrate an understanding of the concepts and equipment required of digital image acquisition and display. – The student will be able to:
	13.01 Define terminology associated with digital imaging systems.
	13.02 Describe the various types of digital receptors.
	13.03 Describe the response of digital detectors to exposure variations.
	13.04 Compare the advantages and limits of each receptor type.
	13.05 Evaluate the spatial resolution of a digital imaging system.
	13.06 Describe the histogram and the process or histogram analysis as it relates to automatic rescaling and determining an exposure indicator.
	13.07 Relate the receptor exposure indicator values to technical factors, system calibration, part/beam/plate alignment and patient exposure.
	13.08 Describe the response of PSP systems to background and scatter radiation.
	13.09 Use appropriate means of scatter control.
	13.10 Avoid grid use errors associated with grid cutoff and Moiré effect.
	13.11 Identify common limitations and technical problems encountered when using PSP systems.
	13.12 Employ appropriate beam/part/receptor alignment to avoid histogram analysis errors.
	13.13 Associate impact of image processing parameters to the image appearance.
	13.14 Apply the fundamental principles of radiographic exposure to digital detectors.
	13.15 Evaluate the effect of a given exposure change on histogram shape, data width and image appearance.
	13.16 Describe the conditions that cause quantum mottle in a digital image.

13.17	Formulate a procedure or process to minimize histogram analysis and rescaling errors.
13.18	Examine the potential impact of digital radiographic systems on patient exposure and methods of practicing the as low as reasonably achievable (ALARA) concept with digital systems.
13.19	Describe picture archival and communications system (PACS) and its function.
13.20	Identify components of a PACS.
13.21	Define digital imaging and communications in medicine (DICOM).
13.22	Describe HIPAA concerns with electronic information.
13.23	Identify common problems associated with retrieving/viewing images within a PACS.
13.24	Describe the calculation of the exposure indicator (AAPM Task Group 116).
13.25	Relate how the values of interest (VOI) impact image appearance.
13.26	Describe signal to noise (SNR) as it relates to digital radiography detectors.
13.27	Describe modulation transfer function (MTF) as it relates to digital radiography detectors.
13.28	Describe contrast to noise (CNR) as it relates to digital radiography detectors.
13.29	Describe detective quantum efficiency (DQE) for digital radiography detectors.
13.30	Describe display monitor aspect ratio and its impact on image display
13.31	Identify critical components of the DICOM header.
13.32	Relate the location and size of the ROI to the appearance of the image and exposure indicator
13.33	Discuss the impact of viewing angle, luminance, ambient lighting, and pixel size on image display.

Course Number: RTE0506
Occupational Completion Point: B
Radiographic Procedures II – 90 Hours – SOC Code 29-2034

Radiologic Procedures II is a continuation of Radiologic Procedures I and builds on the skills and knowledge obtained in that course. In addition to the course objectives included below in Radiologic Procedures II, standards are also repeated from Radiologic Procedures I due to the progressive approach to student competency and proficiency.

14.0	Demonstrate an understanding of the structure and function of the human body with a focus on the axial skeletal system. – The student will be able to:

14.01	Describe articulations of the axial skeleton.
14.02	Differentiate the primary and secondary curves of the spine.
14.03	Identify and locate the bones of the human axial skeleton.
14.04	Identify bony processes and depressions found on the human axial skeleton.
14.05	Summarize the functions of the axial skeletal system.
14.06	Label different types of articulations specific to the axial skeletal system.

Course Number: RTE0507
Occupational Completion Point: B
Radiographic Procedures III – 66 Hours – SOC Code 29-2034

Radiologic Procedures III is a continuation of Radiologic Procedures I and Radiologic Procedures II and builds on the skills and knowledge obtained in that course. In addition to the course objectives included below in Radiologic Procedures III, standards are also repeated from Radiologic Procedures I and Radiologic Procedures II due to the progressive approach to student competency and proficiency.

15.0	Demonstrate an understanding of the structure and function of the human body with a focus on the circulatory/cardiovascular, digestive and reproductive systems. – The student will be able to:
15.01	Describe the composition and characteristics of blood.
15.02	List the types of blood cells and state their functions.
15.03	Differentiate between blood plasma and serum.
15.04	Outline the clotting mechanism.
15.05	List the blood types.
15.06	Explain the term Rh factor.
15.07	Explain the antigen/antibody relationship and its use in blood typing.
15.08	Label the parts of the human heart.
15.09	Describe the flow of blood through the body and identify the main vessels.
15.10	Describe the structure and function of arteries, veins and capillaries.
15.11	Differentiate between arterial blood in systemic circulation and arterial blood in pulmonary circulation.
15.12	Outline the major pathways of lymphatic circulation.

15.13	Correlate cardiac electrophysiology to a normal ECG tracing.
15.14	Label the anatomy of the male and female reproductive organs.
15.15	Analyze the function of each of the male and female reproductive organs.
15.16	Describe the structures and functions of the components that comprise the human eye and ear.
15.17	List the component body parts involved in the senses of smell and taste.
15.18	List the somatic senses.
15.19	Describe the hard and soft palates.
15.20	Describe the structure and function of the tongue.
15.21	Identify the structure, function and locations of the salivary glands.
15.22	List and label the accessory organs of the digestive system and describe their function.
15.23	Describe the composition and characteristics of the primary organs of the digestive system.
15.24	Describe the function(s) of each primary organ of the digestive system.
15.25	Differentiate between the layers of tissue that comprise the esophagus, stomach, small intestine, large intestine and rectum.
15.26	Identify the secretions and function of each accessory organ of the digestive system.
15.27	Explain the purpose of digestion.
15.28	List the digestive processes that occur in the body.
16.0	Demonstrate proficiency in the skills, techniques and knowledge required to perform accurate fluoroscopic procedures. – The student will be able to:
16.01	Identify the structures demonstrated on routine fluoroscopic images.
16.02	Adapt fluoroscopic procedures for special considerations.
16.03	Simulate fluoroscopic procedures on a person or phantom in a laboratory setting.
16.04	Evaluate images for positioning, centering, appropriate anatomy and overall image quality.
16.05	Discuss equipment and supplies necessary to complete basic fluoroscopic procedures.
16.06	Explain the patient preparation necessary for various contrast and special studies.

16.07	Explain the routine and special positions/projections for all fluoroscopic procedures.
16.08	Explain the purpose for using contrast media.
16.09	Name the type, dosage and route of administration of contrast media commonly used to perform radiographic contrast and special studies.
16.10	Describe the general purpose of fluoroscopic studies.
16.11	Apply general radiation safety and protection practices associated with fluoroscopic examinations.

Course Number: RTE0819
Occupational Completion Point: B
Clinical Education II – 504 Hours – SOC Code 29-2034

Clinical Education II provides a progressive practicum in sequence to *Clinical Education I* in which students are expected to apply skills learned in *Fundamentals of Radiologic Technology, Radiographic Procedures I, Radiographic Procedures II,* and *Clinical Education I.* The course objectives in *Clinical Education II* are repeated from *Clinical Education I* due to the progressive approach to student competency and proficiency. This course is a necessary prerequisite for advancing to *Clinical Education III.*

The content and clinical practice experiences within the course of *Clinical Education II* are designed to sequentially develop, apply, critically analyze, integrate, synthesize and evaluate concepts and theories in the performance of radiologic procedures. Through structured, sequential and competency-based clinical assignments, students will adopt and apply concepts of team practice, radiation protection, and become skillful in patient-centered clinical practice while developing professional expertise and conduct that are discussed, examined and evaluated. *Clinical Education II* provides students with practical experiences in patient care and assessment, fosters competent performance of radiologic imaging and impacts total quality management standards. Levels of competency and performance outcomes are measured at six-week intervals. This is designed to ensure the well-being of patients before, during and after performance of radiologic procedures. The evaluative measurement tools provide a mechanism that ensures progression of student competency and proficiency.

Course Number: RTE0015
Occupational Completion Point: C
Advanced Modality Imaging – 54 Hours – SOC Code 29-2034

17.0	Demonstrate an understanding of the structure and function of the human body with a focus on the nervous system. – The student will be able to:
17.01	Differentiate between the structure and function of different types of nerve cells.
17.02	State the structure of the brain and the relationship of its component parts.
17.03	Describe brain functions.
17.04	List the meninges and describe the function of each.

17.05	Outline how cerebrospinal fluid forms, circulates and functions.
17.06	Describe the structure and function of the spinal cord.
17.07	Determine the distribution and function of cranial and spinal nerves.
17.08	Summarize the structure and function of components that comprise the autonomic nervous system.
18.0	Demonstrate introductory knowledge of computed tomography. – The student will be able to:
18.01	Explain the difference between reconstructing and reformatting an image.
18.02	Cite the structures demonstrated on commonly performed CT images.
18.03	Describe commonly performed CT procedures.
18.04	Evaluate images for positioning, centering, appropriate anatomy and overall image quality
18.05	Discuss equipment and supplies necessary to complete commonly performed CT procedures.
18.06	Explain the CT acquisition protocol for commonly performed head/neck, thorax, and abdomen procedures.
18.07	Explain the patient preparation necessary for commonly performed CT contrast studies.
18.08	Name the type, dosage purpose, and route of contrast administration for common CT procedures.
18.09	Describe the components of the CT imaging system.
18.10	Explain the functions of collimators in CT.
18.11	List the CT computer data processing steps.
18.12	Define algorithm and explain its impact on image scan factors and reconstruction.
18.13	Define raw data and image data.
18.14	Describe the following terms in relation to the CT data acquisition process:
	a. Pixel.
	b. Matrix.
	c. Voxel.
	d. Linear attenuation coefficient.

	e. CT/Hounsfield number.
	f. Partial volume averaging.
	g. Window width (ww) and window level (wl).
	h. Spatial resolution.
	i. Contrast resolution.
	j. Noise.
	k. Annotation.
	l. Region of interest (ROI).
18.15	Name the common controls found on CT operator consoles and describe how and why each is used.
18.16	Identify the types and appearance of artifacts most commonly affecting CT images.
18.17	Name the radiation protection devices that can be used to reduce patient dose in CT and describe the correct application of each.
18.18	Describe the general purpose of commonly performed CT studies.
18.19	Discuss general radiation safety and protection practices associated with examinations in CT.
19.0	Demonstrate appropriate venipuncture technique. – The student will be able to:
19.01	Differentiate between the two major sites of intravenous drug administration.
19.02	Identify, describe and document complications associated with venipuncture and appropriate actions to resolve these complications.
19.03	Discuss the various elements of initiating and discontinuing intravenous access.
19.04	Differentiate and document dose calculations for adult and pediatric patients.
19.05	Prepare for injection of contrast agents/intravenous medications using aseptic technique.
19.06	Explain the current legal status and professional liability issues of the radiographer’s role in contrast and/or drug administration.
19.07	Simulate appropriate venipuncture technique.

Course Number RTE0780 **Occupational Completion Point: C** **Radiographic Pathology& Directed Research – 86 Hours – SOC Code 29-2034**	
20.0	Demonstrate an understanding of radiographic pathology. – The student will be able to:
	20.01 Define basic terms related to pathology.
	20.02 Describe the basic manifestations of pathological conditions and their relevance to radiologic procedures.
	20.03 Discuss the classifications of trauma.
	20.04 Describe imaging procedures used in diagnosing disease.
	20.05 List the causes of tissue disruption.
	20.06 Describe the healing process.
	20.07 Identify complications connected with the repair and replacement of tissue.
	20.08 Describe the various systemic classifications of disease in terms of etiology, types, common sites, complications and prognosis.
	20.09 Describe the radiographic appearance of diseases.
	20.10 Identify imaging procedures and interventional techniques appropriate for diseases common to each body system.
	20.11 Identify diseases caused by or connected to genetic factors.

Course Number: RTE0610 **Occupational Completion Point: C** **Radiation Physics – 86 Hours – SOC Code 29-2034**	
21.0	Demonstrate an understanding of how radiation is produced and the characteristics of different classifications of radiation. – The student will be able to:
	21.01 Describe fundamental atomic structure.
	21.02 Describe the electromagnetic spectrum.
	21.03 Describe wavelength and frequency and how they are related to velocity.
	21.04 Explain the relationship of energy, wavelength and frequency.
	21.05 Explain the wave-particle duality phenomena.
	21.06 Identify the properties of x-rays.

21.07 Describe the processes of ionization and excitation.
21.08 Describe particulate radiation.
21.09 Differentiate between ionizing and nonionizing radiation.
21.10 Describe radioactivity and radioactive decay in terms of alpha, beta and gamma emission.
21.11 Compare the production of bremsstrahlung and characteristic radiations.
21.12 Describe the conditions necessary to produce x-radiation.
21.13 Describe the x-ray emission spectrum.
21.14 Explain the factors that affect the x-ray emission spectrum.
21.15 Discuss various photon interactions with matter.
21.16 Discuss relationships of wavelength and frequency to beam characteristics.
21.17 Discuss the clinical significance of the photoelectric and modified scattering (Compton) interactions in diagnostic imaging.
21.18 Compare and contrast different types of radiation.

Course Number: RTE0829
Occupational Completion Point: C
Clinical Education III – 220 Hours – SOC Code 29-2034

Clinical Education III provides a progressive practicum in sequence to *Clinical Education II* in which students are expected to apply skills learned in *Fundamentals of Radiologic Technology, Radiographic Procedures I, Radiographic Procedures II, Radiographic Procedures III* and all previously sequenced Clinical Education courses. The course objectives in *Clinical Education III* are repeated from *Clinical Education I* due to the progressive approach to student competency and proficiency. This course is a necessary prerequisite for advancing to *Clinical Education IV.*

The content and clinical practice experiences within the course of *Clinical Education III* are designed to sequentially develop, apply, critically analyze, integrate, synthesize and evaluate concepts and theories in the performance of radiologic procedures. Through structured, sequential and competency-based clinical assignments, students will adopt and apply concepts of team practice, radiation protection, and become skillful in patient-centered clinical practice while developing professional expertise and conduct that are discussed, examined and evaluated.

Clinical Education III provides students with practical experiences in patient care and assessment, fosters competent performance of radiologic imaging and impacts total quality management standards. Levels of competency and performance outcomes are measured at six-week intervals. This is designed to ensure the well-being of patients before, during and after performance of radiologic procedures. The evaluative measurement tools provide a mechanism that ensures progression of student competency and proficiency.

Course Number RTE0839
Occupational Completion Point: C
Advanced Clinical Education IV – 340 Hours – SOC Code 29-2034

Advanced Clinical Education IV provides an advanced progressive practicum in sequence to *Clinical Education III* in which students are expected to apply skills learned in *Fundamentals of Radiologic Technology, Radiographic Procedures I, II and III, Radiographic Imaging I and II,* and all previously sequenced Clinical Education courses. The course objectives in *Clinical Education IV* are repeated from *Clinical Education I* due to the progressive approach to student competency and proficiency. This course is a necessary prerequisite for advancing to *Clinical Education V.*

The content and clinical practice experiences within the course of *Advanced Clinical Education IV* are designed to sequentially develop, apply, critically analyze, integrate, synthesize and evaluate concepts and theories in the performance of radiologic procedures. Through structured, sequential and advanced competency-based clinical assignments, students will consistently demonstrate concepts of team practice; proficiency of skills in patient-centered clinical practice and radiation protection; and professional expertise and conduct that are discussed, examined and evaluated.

Advanced Clinical Education IV provides students with advanced practical experiences in patient care and assessment, fosters competent performance of radiologic imaging and impacts total quality management standards. *Advanced Clinical IV* includes practice in venipuncture skills and shadowing in advanced modality imaging. Levels of competency and performance outcomes are measured at six-week intervals. This is designed to ensure the well-being of patients before, during and after performance of radiologic procedures. The evaluative measurement tools provide a mechanism that ensures progression of student competency and proficiency.

Course Number: RTE0380
Occupational Completion Point: C
Radiation Biology & Radiation Protection – 51 Hours – SOC Code 29-2034

22.0	Demonstrate an understanding of the structure and function of the human body including the immune system and chemical composition of the body. – The student will be able to:
22.01	Describe the chemical composition of the human body.
22.02	Identify cell structure and elements of genetic control.
22.03	Explain the essentials of human metabolism.
22.04	Differentiate between nonspecific defenses and specific immunity.
22.05	Explain antibody production and function.
22.06	List the different types and functions of T- and B-cells and explain their functions.
23.0	Demonstrate an understanding of the integral aspects of radiation biology required of a radiographer. – The student will be able to:
23.01	Differentiate between ionic and covalent molecular bonds.

	23.02 Describe principles of cellular biology.
	23.03 Identify sources of electromagnetic and particulate ionizing radiations.
	23.04 Discriminate between the direct and indirect effects of radiation.
	23.05 Identify sources of radiation exposure.
	23.06 Describe radiation-induced chemical reactions and potential biologic damage.
	23.07 Evaluate factors influencing radiobiologic/biophysical events at the cellular and subcellular level.
	23.08 Identify methods to measure radiation response.
	23.09 Describe physical, chemical and biologic factors influencing radiation response of cells and tissues.
	23.10 Explain factors influencing radiosensitivity.
	23.11 Recognize the clinical significance of lethal dose (LD).
	23.12 Identify the radiosensitivity and radioresistency of specific cells.
	23.13 Employ dose response curves to study the relationship between radiation dose levels and the degree of biologic response.
	23.14 Examine effects of limited vs. total body exposure.
	23.15 Relate short-term and long-term effects as a consequence of high and low radiation doses.
	23.16 Differentiate between somatic and genetic radiation effects and discuss specific diseases or syndromes associated with them.
	23.17 Discuss stochastic and deterministic effects.
	23.18 Discuss embryonic and fetal effects of radiation exposure.
	23.19 Discuss risk estimates for radiation-induced malignancies.
	23.20 Discuss acute radiation syndromes.
	23.21 Define basic terms related to dose differences.
24.0	Convey the importance for proper radiation protection and the precautions radiographers should take to prevent unnecessary exposure to themselves and patients. – The student will be able to:
	24.01 Identify and justify the need to minimize unnecessary radiation exposure of humans.
	24.02 Explain the objectives of a radiation protection program.

24.03 Define radiation and radioactivity units of measurement.
24.04 Identify effective dose limits (EDL) for occupational and nonoccupational radiation exposure.
24.05 Describe the ALARA concept.
24.06 Identify the basis for occupational exposure limits.
24.07 Distinguish between perceived risk and comparable risk.
24.08 Describe the concept of the negligible individual dose (NID).
24.09 Identify ionizing radiation sources from natural and man-made sources.
24.10 Comply with legal and ethical radiation protection responsibilities of radiation workers.
24.11 Describe the relationship between irradiated area and effective dose.
24.12 Describe the theory and operation of radiation detection devices.
24.13 Identify appropriate applications and limitations for each radiation detection device.
24.14 Describe how isoexposure curves are used for radiation protection.
24.15 Identify performance standards for beam-limiting devices.
24.16 Describe procedures used to verify performance standards for equipment.
24.17 Describe the operation of various interlocking systems for equipment.
24.18 Identify conditions and locations evaluated in an area survey for radiation protection.
24.19 Distinguish between controlled and non-controlled areas and list acceptable exposure levels.
24.20 Describe “Radiation Area” signs and identify appropriate placement sites.
24.21 Describe the function of federal, state and local regulations governing radiation protection practices.
24.22 Describe the qualifications and responsibilities of a radiation safety officer.
24.23 Express the need and importance of personnel monitoring for radiation workers.
24.24 Describe personnel monitoring devices, including applications, advantages and limitations for each device.
24.25 Interpret personnel monitoring reports.

24.26	Compare values for individual effective dose limits for occupational radiation exposures (annual and lifetime).
24.27	Identify effective dose limits for the embryo and fetus in occupationally exposed women.
24.28	Distinguish between primary and secondary radiation barriers.
24.29	Demonstrate how the operation of various x-ray and ancillary equipment influences radiation safety and describe the potential consequences of equipment failure.
24.30	Perform calculations of exposure with varying time, distance and shielding.
24.31	Discuss the relationship between workload, energy, half-value layer (HVL), tenth-value layer (TVL), use factor and shielding design.
24.32	Identify emergency procedures to be followed during failures of x-ray equipment.
24.33	Demonstrate how time, distance and shielding can be manipulated to keep radiation exposures to a minimum.
24.34	Explain the relationship of beam-limiting devices to patient radiation protection.
24.35	Discuss added and inherent filtration in terms of the effect on patient dosage.
24.36	Explain the purpose and importance of patient shielding.
24.37	Identify various types of patient shielding and state the advantages and disadvantages of each type.
24.38	Use the appropriate method of shielding for a given radiographic or fluoroscopic procedure.
24.39	Explain the relationship of exposure factors to patient dosage.
24.40	Explain how patient position affects dose to radiosensitive organs.
24.41	Identify the appropriate image receptor that will result in an optimum diagnostic image with the minimum radiation exposure to the patient.
24.42	Select the immobilization techniques used to eliminate voluntary motion.
24.43	Describe the minimum source-to-tabletop distances for fixed and mobile fluoroscopic devices.
24.44	Apply safety factors for the patient, health care personnel and family members in the room during radiographic/fluoroscopic procedures.

Course Number: RTE0939
Occupational Completion Point: C
Radiography Seminar – 153 Hours – SOC Code 29-2034

Radiography Seminar provides the student a systematic approach to integrating, synthesizing, and evaluating program content knowledge to ensure adequate preparation for meeting the requirements for licensure in radiologic technology. This course provides evaluative assessment tools that aide the student in conveying and demonstrating mastery of the course objectives from all program content:

- Convey an understanding of the ethics and laws that impact radiologic sciences at both the state and federal levels.
- Demonstrate knowledge of radiologic science as it pertains to the healthcare system.
- Demonstrate a functional knowledge of medical terminology required in radiologic sciences.
- Demonstrate knowledge of patient care procedures required in radiologic sciences.
- Convey an understanding of pharmacology and venipuncture procedures as it relates to radiologic sciences.
- Demonstrate proficiency in the skills, techniques and knowledge required for image analysis.
- Demonstrate proficiency in the skills, techniques and knowledge required to operate imaging equipment.
- Convey an understanding of the principles of imaging and the various factors that contribute to accuracy.
- Convey an understanding of the structure and function of the human body.
- Demonstrate proficiency in the skills, techniques and knowledge required to perform accurate radiographic procedures.
- Convey an understanding of the concepts and equipment required of digital image acquisition and display.
- Convey an understanding of how radiation is produced and the characteristics of different classifications of radiation.
- Convey an understanding of radiographic pathology.
- Convey an understanding of the integral aspects of radiation biology required of a radiographer.
- Convey an understanding of the importance for proper radiation protection and the precautions radiographers should take to prevent unnecessary exposure to themselves and patients.

Course Number: RTE0849
Occupational Completion Point: C
Advanced Clinical Education V – 360 Hours – SOC Code 29-2034

Advanced Clinical Education V provides an advanced progressive practicum in sequence to *Advanced Clinical Education IV* in which students are expected to apply skills learned in *Fundamentals of Radiologic Technology, Radiographic Procedures I, II and III, Radiographic Imaging I and II,* and all previously sequenced Clinical Education courses. The course objectives in *Advanced Clinical Education V* are repeated from *Clinical Education I* due to the progressive approach to student competency and proficiency.

The content and clinical practice experiences within the course of *Advanced Clinical Education V* are designed to sequentially develop, apply, critically analyze, integrate, synthesize and evaluate concepts and theories in the performance of radiologic procedures. Through structured, sequential and advanced competency-based clinical assignments, students will consistently demonstrate concepts of team practice; proficiency of skills in patient-centered clinical practice and radiation protection; and professional expertise and conduct that are discussed, examined and evaluated.

Advanced Clinical Education V provides students with advanced practical experiences in patient care and assessment, fosters competent performance of radiologic imaging and impacts total quality management standards. *Advanced Clinical V* includes practice in venipuncture skills and shadowing in advanced modality imaging. Levels of competency and performance outcomes are measured at six-week intervals. This is designed to ensure the well-being of patients before, during and after performance of radiologic procedures. The evaluative measurement tools provide a mechanism that ensures that program standards of student competency and proficiency have been met.

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

If students in this program are seeking a licensure, certificate or registration through the Department of Health, please refer to 456.0635 F.S. for more information on disqualification for a license, certificate, or registration through the Department of Health.

The program must be accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 North Wacker Drive, Suite 900, Chicago, Illinois 60606-2901, (312) 704-5300, or any other appropriate accrediting agency acceptable to the American Registry of Radiologic Technologists (ARRT).

The program must also be approved by the Department of Health, Bureau of Radiation Control so that the graduate is eligible for licensure in Florida as a Certified Radiologic Technologist. As specified in Chapter 468 Part IV F.S. and Chapter 64E-3 F.A.C.

Radiographers provide patient services using imaging modalities, as directed by physicians qualified to order and/or perform radiologic procedures. Radiographers usually provide patient care essential to radiologic procedures, including exercising judgment when performing medical imaging procedures. When providing patient services, the radiographer adheres to the principles of radiation protection for the patient, self, and others.

Radiographers accurately demonstrate anatomical structures on various imaging receptors by knowledge of anatomy, positioning, radiographic technique, and radiation protection. Radiographers must also be able to recognize emergency patient conditions and initiate lifesaving first aid. Additional duties may include performing quality assurance, processing film, and keeping patient records. Radiographers may be required to perform some of these duties at the patient's bedside or in the operating room.

The policies and process by which students receive clinical education shall be published and made known to all concerned in order to avoid practices in which students are substituted for paid staff. Students shall not take the responsibility or the place of qualified staff. After demonstrating competency, students may be permitted to perform procedures with indirect supervision. Unsatisfactory radiographs shall be repeated only in the presence of a qualified radiographer.

Program completers will be eligible to make an application to take the National Registry examination. For further information contact:

American Registry of Radiologic Technologists (ARRT)
1255 Northland Drive
St. Paul, MN 55120-1155
(612) 687-0048

Students are encouraged to become members of their appropriate professional organizations such as the American Society of Radiologic Technologists (ASRT), Florida Society of Radiologic Technologists (FSRT) and its' local affiliate.

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)

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.

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.

Basic Skills

In a Career Certificate Program offered for 450 hours or more, in accordance with Rule 6A-10.040, F.A.C., the minimum basic skills grade levels required for postsecondary adult career and technical students to complete this program are: Mathematics 11, Language 11, and Reading 11. These grade level numbers correspond to a grade equivalent score obtained on a state designated basic skills examination.

Adult students with disabilities, as defined in Section 1004.02(7), Florida Statutes, may be exempted from meeting the Basic Skills requirements (Rule 6A-10.040). Students served in exceptional student education (except gifted) as defined in s. 1003.01(3) (a), F.S., may also be exempted from meeting the Basic Skills requirement. Each school district and Florida College must adopt a policy addressing procedures for exempting eligible students with disabilities from the Basic Skills requirement as permitted in Section 1004.91(3), F.S.

Students who possess a college degree at the Associate of Applied Science level or higher; who have completed or are exempt from the college entry-level examination; or who have passed a state, national, or industry licensure exam are exempt from meeting the Basic Skills requirement (Rule 6A-10.040, F.A.C.) Exemptions from state, national or industry licensure are limited to the certifications listed on the Basic Skills and Licensure Exemption List which may be accessed from the CTE Program Resources page.

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: **Paramedic**
Program Type: **Career Preparatory**
Career Cluster: **Health Science**

THIS PROGRAM HAS BEEN DAGGERED FOR DELETION. THE LAST YEAR TO ENROLL NEW STUDENTS IS 2019/20. LAST YEAR TO REPORT ENROLLMENT IS 2021-22. BEGINNING IN 2020-21 ALL NEW STUDENTS WILL BE ENROLLED IN THE NEW PRAMEDIC ATD PROGRAM 03510990417/H170212.

This program is ONLY authorized to be offered by the following districts: Lake, Manatee, St. Johns, and Sarasota

Career Certificate Program	
Program Number	W170211 (This program is for use by Grandfathered Districts ONLY)
CIP Number	0351090416
Grade Level	30, 31
Standard Length	1100 clock hours
Teacher Certification	Refer to the **Program Structure** section.
CTSO	HOSA: Future Health Professionals
SOC Codes (all applicable)	31-9099 Healthcare Support Workers, All Other 29-2041 Emergency Medical Technicians and Paramedics
Basic Skills Level	Mathematics: 10 Language: 10 Reading: 10

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 Health Science 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 Health Science career cluster.

This is an instructional program that prepares students for employment as paramedics SOC 29-2041 (Emergency Medical Technicians & Paramedics) to function at the basic pre-hospital emergency medical technician - paramedic level and treat various medical/trauma conditions, using appropriate equipment and materials. The program prepares students for certification as paramedics in accordance with Chapter 64E-2 of the Florida Administrative Code.

The content includes but is not limited to: patient assessment, advanced airway management, cardiovascular emergencies, external and internal bleeding and shock, traumatic injuries, fractures, dislocations, sprains, poisoning, heart attack, stroke, diabetes, pharmacology, medication administration, respiratory emergencies, endocrine emergencies, acute abdomen, communicable diseases, patients with abnormal behavior, substance abuse, the unconscious state, emergency childbirth, pediatric and geriatric emergencies, burns, environmental hazards, communications, documentation, extrication, mass casualty incident, incident command system, and transportation of patient.

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 1 occupational completion point.

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	EMS0210	Paramedic I	PARAMEDIC @7 7G # REG NURSE 7 G #PRAC NURSE @7 %7%G *(Must be a Registered Nurse)	248 hours	29-2041
	EMS0211	Paramedic II		426 hours	
	EMS0212	Paramedic III		426 hours	

 # A registered Nurse (REG NURSE 7 G) can only be used as adjunct faculty. Please refer to 64J-1.201 F.A.C. for the EMS instructor qualifications.

Regulated Programs

The Paramedic standards and benchmarks in this framework include all of the content, knowledge and skills at the EMT level in addition to the Paramedic objectives. For those standards that state "Review EMT standards and benchmarks", please refer to the EMT curriculum framework for specific objectives.

The program must be approved by the Department of Health, Office of Emergency Medical Services, and the curriculum must adhere to the US Department of Transportation (DOT), National EMS Educational Standards for Paramedic. This is the second level for a career in emergency medical services. Completion of this program should prepare the student for the certification examination approved for the state of Florida.

This program meets the Department of Health trauma score card methodologies and SUIDS training education requirements. Upon completion of this program, the instructor will provide a certificate to the student verifying that these requirements have been met. This program also meets the Department of Health's education requirements for HIV/AIDS, Domestic Violence and Prevention of Medical Errors. Although not a requirement for initial licensure, it is a requirement for renewal, therefore the instructor may provide a certificate for renewal purposes to the student verifying these requirements have been met.

A Paramedic program must be taught by faculty meeting the qualifications as set forth in 64J-1.020 F. A. C.

Pursuant F.S.401.2701 to Paramedic programs must be available only to Florida-certified emergency medical technicians or an emergency medical technician applicant who will obtain Florida certification prior to completion of phase one of the paramedic program and EMT certification must be maintained through the program.

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 a fundamental depth and foundational breadth of the History of EMS and a complex depth and comprehensive breadth of EMS Systems.
02.0 Demonstrate a fundamental depth, foundational breath of research principles to interpret literature and advocate evidence-based practice.
03.0 Demonstrate a complex depth, comprehensive breadth of workforce safety and wellness.
04.0 Demonstrate a complex depth, comprehensive breadth of the principles of medical documentation and report writing.
05.0 Demonstrate a complex depth, comprehensive breadth of EMS communication system.
06.0 Demonstrate a complex depth and comprehensive breadth of the therapeutic communication principles.
07.0 Demonstrate a complex depth, comprehensive breadth of medical legal and ethical concepts related to EMS.
08.0 Demonstrate a complex depth and comprehensive breadth of anatomy and physiology of all human systems.
09.0 Demonstrate the integration of comprehensive anatomical and medical terminology and abbreviations into written and oral communication with health care professionals.
10.0 Demonstrate a comprehensive knowledge of pathophysiology of major systems.
11.0 Apply the integration of knowledge of the physiological, psychological, and sociological changes throughout human development.
12.0 Demonstrate the application of fundamental knowledge of principles of public health.
13.0 Demonstrate a complex depth, comprehensive breadth in the principles of pharmacology.
14.0 Demonstrate a complex depth, comprehensive breadth of medication administration within the scope of practice of the paramedic.
15.0 Demonstrate a complex depth, comprehensive breadth of emergency medications within the scope of practice for the paramedic.
16.0 Demonstrate a complex depth, comprehensive breadth of airway management and respiration within the scope of practice of the paramedic.
17.0 Demonstrate a complex breadth, comprehensive breadth of assessment and management utilizing artificial ventilation.
18.0 Demonstrate a complex depth, comprehensive breadth of scene management.
19.0 Demonstrate a complex depth, comprehensive breadth of the primary assessment for all patient situations.
20.0 Demonstrate a complex depth, comprehensive breath of the components of history taking.
21.0 Demonstrate a complex depth, comprehensive breadth of techniques used for a secondary assessment.
22.0 Demonstrate a fundamental depth, foundational breadth of monitoring devices within the scope of practice of the paramedic.
23.0 Demonstrate a complex depth, comprehensive breadth of how and when to perform a reassessment for all patient situations.
24.0 Demonstrate a complex depth and comprehensive breadth of pathophysiology, assessment, and management of medical complaints.
25.0 Demonstrate a complex depth and comprehensive breadth of neurologic disorders/emergencies for all age groups.
26.0 Demonstrate a complex depth and comprehensive breadth of abdominal and gastrointestinal disorders/emergencies for all age groups.
27.0 Demonstrate a complex depth, comprehensive breadth of immunology disorders/emergencies for all age groups.
28.0 Demonstrate a complex depth, comprehensive breadth of assessment and management of a patient who may have an infectious diseases for all age groups.
29.0 Demonstrate a complex depth, comprehensive breadth in endocrine disorders/emergencies for all age groups.
30.0 Demonstrate a complex depth, comprehensive breadth regarding the assessment and management of psychiatric disorders/emergencies for all age groups.
31.0 Demonstrate a complex depth, comprehensive breadth of cardiovascular disorders/ emergencies for all age groups.

32.0 Demonstrate a complex depth, comprehensive breadth of the assessment and management of toxicology emergencies for all age groups.
33.0 Demonstrate a complex depth, comprehensive breadth of the assessment and management of respiratory disorders/emergencies for all age groups.
34.0 Demonstrate a complex depth, foundational breadth of the assessment, and management of hematology disorders/ emergencies for all age groups.
35.0 Demonstrate a complex depth, comprehensive breadth of genitourinary and renal emergencies all age groups.
36.0 Demonstrate a complex depth, comprehensive breadth of the assessment findings and the management of gynecology disorders/emergencies for all age groups.
37.0 Demonstrate a fundamental depth, foundation breadth of the assessment and management of non-traumatic fractures for all age groups.
38.0 Demonstrate a fundamental depth, foundational breadth of the assessment and management of common or major diseases of the eyes, ears, nose and throat for all age groups.
39.0 Demonstrate the integration of a comprehensive knowledge of causes and pathophysiology into the management of shock and respiratory failure.
40.0 Demonstrate a complex depth, comprehensive breadth of pathophysiology, assessment and management of the trauma patient for all age groups.
41.0 Demonstrate a complex depth, comprehension breadth of pathophysiology, assessment and management of bleeding for all age groups.
42.0 Demonstrate a complex depth, comprehensive breadth of pathophysiology, assessment, and management of chest trauma for all age groups.
43.0 Demonstrate a complex depth, comprehensive breadth of pathophysiology, assessment, and management of abdominal and genitourinary trauma for all age groups.
44.0 Demonstrate a fundamental depth, foundational breadth of pathophysiology, assessment, and management of orthopedic trauma for all age groups.
45.0 Demonstrate a complex depth, comprehensive breadth of pathophysiology, assessment, and management of soft tissue trauma for all age groups.
46.0 Demonstrate a fundamental depth, foundational breadth of head, face, neck, and spine trauma for all age groups.
47.0 Demonstrate a fundamental depth, foundational breadth of nervous system trauma for all age groups.
48.0 Demonstrate a complex depth, comprehensive breadth of special considerations in trauma for all age groups.
49.0 Demonstrate a complex depth, comprehensive breadth of environmental emergencies for all age groups.
50.0 Demonstrate a complex depth, comprehensive breadth of multi-system trauma and blast injuries.
51.0 Demonstrate a complex depth, comprehensive breadth of the management of the obstetric patient within the scope of practice of the paramedic.
52.0 Demonstrate a complex depth, comprehensive breadth of the management of the neonatal patient within the scope of practice of the paramedic.
53.0 Demonstrate a complex depth, comprehensive breadth of the management of the pediatric patient within the scope of practice of the paramedic.
54.0 Demonstrate a complex depth, comprehensive breadth of the management of the geriatric patient within the scope of practice of the paramedic.

55.0 Demonstrate a complex depth, comprehensive breadth of management of the patient with special challenges within the scope of practice of the paramedic.
56.0 Demonstrate a simple depth, foundational breadth of risks and responsibilities of transport.
57.0 Demonstrate a complex depth, comprehensive breadth of establishing and working within the incident management system.
58.0 Demonstrate a simple depth, foundational breadth of responding to an emergency during a multiple casualty incident.
59.0 Demonstrate a complex depth, comprehensive breadth of air Medical transport risks, needs and advantages.
60.0 Demonstrate a simple depth, simple breadth for safe vehicle extrication and use of simple hand tools.
61.0 Demonstrate a simple depth, simple breadth of risks and responsibilities of operating in a cold zone at a hazardous material or other special incident.
62.0 Demonstrate a simple depth, simple breadth of risks and responsibilities of operating on the scene of a natural or man- made disaster.

Florida Department of Education
Student Performance Standards

Program Title: **Paramedic**
PSAV Number: **W170211**

The Paramedic standards and benchmarks in this framework include all of the content, knowledge and skills at the EMT level in addition to the Paramedic objectives. For those standards that state "Review EMT standards and benchmarks", please refer to the EMT curriculum framework for specific objectives.

Course Number: EMS0210 **Occupational Completion Point: A** **Paramedic I – 248 hours – SOC Code 29-2041**	
01.0	**EMS Systems:** Demonstrate a fundamental depth and foundational breadth of the history of EMS and a complex depth and comprehensive breadth of EMS Systems. – The student will be able to:
01.01	Define terms, including but not limited to: EMS systems, licensure, registration, profession, professionalism, health care professional, ethics, peer review, medical direction and protocols.
01.02	Describe the attributes of a paramedic as a health care professional.
01.03	Explain paramedic licensure/ certification, recertification, and reciprocity requirements in his or her state.
01.04	Evaluate the importance of maintaining one's paramedic license/ certification.
01.05	Describe the benefits of paramedic continuing education.
01.06	Discuss the role of national associations and of a national registry agency.
01.07	Discuss Chapter 401, Florida Statutes, and Chapter 64-E, Florida Administrative Code.
01.08	Discuss the roles of various EMS standard setting agencies.
01.09	Identify the standards (components) of an EMS System as defined by the National Highway Traffic Safety Administration.
01.10	Describe examples of professional behaviors in the following areas: integrity, empathy, self-motivation, appearance and personal hygiene, self-confidence, communications, time management, teamwork and diplomacy, respect, patient advocacy, and careful delivery of service.
01.11	Describe the importance of quality EMS research to the future of EMS.
01.12	Describe the role of the EMS physician in providing medical direction.
01.13	Provide examples of local protocols.

	01.14 Describe the relationship between a physician on the scene, the paramedic on the scene, and the EMS physician providing on-line medical direction.
	01.15 Define the role of the paramedic relative to the safety of the crew, the patient, and bystanders.
	01.16 Assess personal practices relative to the responsibility for personal safety, the safety of the crew, the patient, and bystanders.
	01.17 Advocate the need for injury prevention, including abusive situations.
	01.18 Exhibit professional behaviors in the following areas: integrity, empathy, self-motivation, appearance and personal hygiene, self-confidence, communications, time management, teamwork and diplomacy, respect, patient advocacy, and careful delivery of service.
	01.19 Discuss the diverse types of EMS services and how they affect the delivery of advanced pre-hospital care.
02.0	**Research:** Demonstrate a fundamental depth, foundational breath of research principles to interpret literature and advocate evidence-based practice. – The student will be able to:
	02.01 Interpret results, reach conclusions, and generate new ideas based on results.
	02.02 Discuss the importance of evidenced based medicine and medical research and its role in refining EMS practices.
03.0	**Workforce Safety and Wellness:** Demonstrate a complex depth, comprehensive breadth of workforce safety and wellness. – The student will be able to:
	03.01 Discuss the concept of wellness and its benefits.
	03.02 Discuss how cardiovascular endurance, muscle strength, and flexibility contribute to physical fitness.
	03.03 Describe the impact of shift work on circadian rhythms.
	03.04 Discuss how periodic risk assessments and knowledge of warning signs contribute to cancer and cardiovascular disease prevention.
	03.05 Differentiate proper from improper body mechanics for lifting and moving patients in emergency and non-emergency situations.
	03.06 Describe the problems that a paramedic might encounter in a hostile situation and the techniques used to manage the situation.
	03.07 Describe the equipment available for self-protection when confronted with a variety of adverse situations.
	03.08 Describe the three phases and factors that trigger the stress response.
	03.09 Differentiate between normal/ healthy and detrimental reactions to anxiety and stress.
	03.10 Identify and describe the defense mechanisms and management techniques commonly used to deal with stress.
	03.11 Describe the components of critical incident stress management (CISM).
	03.12 Describe the needs of the paramedic when dealing with death and dying.

	03.13 Discuss the importance of standard precautions and body substance isolation practices.
	03.14 Defend the need to treat each patient as an individual, with respect and dignity.
	03.15 Defend the need to respect the emotional needs of dying patients and their families.
	03.16 Identify the human, environmental, and socioeconomic impact of unintentional and alleged unintentional events.
	03.17 Identify health hazards and potential crime areas within the community.
	03.18 Describe the importance of effective documentation as one justification for funding of prevention programs.
04.0	**Documentation:** Demonstrate a complex depth, comprehensive breadth of the principles of medical documentation and report writing. – The student will be able to:
	04.01 Identify the general principles regarding the importance of EMS documentation and ways in which documents are used.
	04.02 Identify and use medical terminology correctly.
	04.03 Record all pertinent administrative information to a given standard.
	04.04 Analyze the documentation for accuracy and completeness, including spelling.
	04.05 Describe the differences between subjective and objective elements of documentation.
	04.06 Describe the potential consequences of illegible, incomplete, or inaccurate documentation.
	04.07 Describe the special considerations concerning patient refusal of transport.
	04.08 Explain how to properly record direct patient or bystander comments.
	04.09 Describe the special considerations concerning mass casualty incident documentation.
	04.10 Identify and record the pertinent, reportable clinical data of each patient interaction.
	04.11 Note and record pertinent negative clinical findings.
	04.12 Demonstrate proper completion of an EMS event record used locally.
05.0	**EMS Communication:** Demonstrate a complex depth, comprehensive breadth of EMS communication system. – The student will be able to:
	05.01 Identify the role of verbal, written, and electronic communications in the provision of EMS.
	05.02 Describe the phases of communications necessary to complete a typical emergency.
	05.03 Identify the importance of proper terminology when communicating during an emergency.

	05.04	List factors that impede effective verbal and written communications.
	05.05	List factors which enhance verbal and written communications.
	05.06	Recognize the legal status of written communications related to an emergency.
	05.07	Identify the components of the local EMS communications system and describe their function and use.
	05.08	Identify and differentiate among the following communications systems: simplex, multiplex, duplex, trunked, digital communications, and cellular telephone.
	05.09	Describe the functions and responsibilities of the Federal Communications Commission.
	05.10	Describe how an emergency medical dispatcher (EMD) functions as an integral part of the EMS team.
	05.11	List appropriate information to be gathered by the Emergency Medical Dispatcher.
	05.12	Describe and organize a list of patient assessment information in the correct order for electronic transmission to medical direction according to the format used locally.
	05.13	State the proper procedures and sequence for delivery of patient information to other healthcare professionals.
06.0	**Therapeutic Communication:** Demonstrate a complex depth and comprehensive breadth of the therapeutic communication principles. – The student will be able to:	
	06.01	Identify internal and external factors that affect a patient/ bystander interview conducted by a paramedic.
	06.02	Review the strategies for developing patient rapport.
	06.03	Summarize the methods to assess mental status based on interview techniques.
	06.04	Discuss the strategies for interviewing a patient who is unmotivated to talk.
	06.05	Summarize developmental considerations of various age groups that influence patient interviewing.
	06.06	Review unique interviewing techniques necessary to employ with patients who have special needs.
	06.07	Discuss interviewing considerations used by paramedics in cross-cultural communications.
07.0	**Medical/Legal and Ethics:** Demonstrate a complex depth, comprehensive breadth of medical legal and ethical concepts related to EMS. – The student will be able to:	
	07.01	Differentiate between legal and ethical responsibilities.
	07.02	Differentiate between licensure and certification as they apply to the paramedic.
	07.03	List the specific problems or conditions encountered while providing care that a paramedic is required to report, and identify in each instance to whom the report is to be made.

	07.04	Review terms, including but not limited to, the following: abandonment, battery, breach of duty, consent (expressed, implied, informed, voluntary), DNR orders, duty to act, emancipated minor, false imprisonment, liability, libel, negligence, proximate cause, scope of practice, slander, and tort.
	07.05	Differentiate between the scope of practice and the standard of care for paramedic practice.
	07.06	Discuss the concept of medical direction, including off-line medical direction and on-line medical direction, and its relationship to the standard of care of a paramedic.
	07.07	Review the four elements that must be present in order to prove negligence.
	07.08	Review the legal concept of immunity, including Good Samaritan statutes and governmental immunity, as it applies to the paramedic.
	07.09	Review the importance and necessity of patient confidentiality and the standards for maintaining patient confidentiality that apply to the paramedic.
	07.10	Review consent to include expressed, informed, implied, and involuntary.
	07.11	Given a scenario, demonstrate appropriate patient management and care techniques in a refusal of care situation.
	07.12	Differentiate between assault and battery and describe how to avoid each.
	07.13	Describe the actions that the paramedic should take to preserve evidence at a crime or accident scene.
	07.14	Describe the importance of providing accurate documentation (oral and written) in substantiating an incident.
	07.15	Describe the characteristics of a patient care report required to make it an effective legal document.
	07.16	Describe the criteria necessary to honor an advance directive in Florida.
	07.17	Demonstrate an understanding of the Paramedic's role in mandatory reporting associated with abused, neglected and/or assaulted patient.
08.0	**Anatomy and Physiology:** Demonstrate a complex depth and comprehensive breadth of anatomy and physiology of all human systems. – The student will be able to:	
	08.01	Review the EMT standards and benchmarks for the Anatomy & Physiology and apply an integration of a complex depth and comprehensive breath of knowledge of the anatomy and physiology of all human body systems.
09.0	**Medical Terminology:** Demonstrate the integration of comprehensive anatomical and medical terminology and abbreviations into written and oral communication with health care professionals. – The student will be able to:	
	09.01	Review the EMT standards and benchmarks for the medical terminology and apply an integration of comprehensive anatomical and medical terminology and abbreviations with colleagues and other health care professionals.
10.0	**Pathophysiology:** Demonstrate a comprehensive knowledge of pathophysiology of major systems. – The student will be able to:	
	10.01	Describe the factors that precipitate disease in the human body including familial diseases and risk factors.
	10.02	Describe environmental risk factors.

	10.03 Review terms including but not limited to: cardiogenic, hypovolemic, neurogenic, anaphylactic and septic shock.
	10.04 Describe multiple organ dysfunction syndrome (MODS).
	10.05 Discuss the correlation of pathophysiology with disease processes.
	10.06 Identify the Major classes of cells.
	10.07 Describe and discuss the cellular structure, function and components.
	10.08 Define the types of body tissues.
	10.09 Describe alterations in cells and tissues including cellular adaptation, cellular injury, manifestation of cellular injury and cellular death/necrosis.
	10.10 Discuss the cellular environment including distribution of body fluids, aging and distribution of body fluids, water movement between ICF and ECF, water movement between plasma and interstitial fluid, alterations in water movement - edema, water balance and the role of electrolytes, and acid-base balances.
	10.11 Describe genetics and familial diseases including factors causing disease, analyzing risk, combined effects and interaction among risk factors, and common familial disease and associated risk factors.
	10.12 Define hypoperfusion and discuss pathogenesis, types of shock, multiple organ dysfunction syndrome, and cellular metabolism impairment.
	10.13 Describe the self –defense mechanisms including the lines of defense, characteristics of the immune response, introduction of the immune response, humoral immune response, cell-mediated immune response, cellular interactions in the immune response, fetal and neonatal immune function and aging and the immune response in the elderly.
	10.14 Describe the inflammation process including the acute inflammatory response, mast cells plasma protein systems, cellular components of inflammation, cellular products, systemic response of acute inflammation, chronic inflammation responses, local inflammation responses, phases of resolution and repair, and aging and self defense mechanisms.
	10.15 Discuss variances in immunity and inflammation including hypersensitivity, allergy, autoimmunity and isoimmunity, and immunity and inflammation deficiencies.
	10.16 Discuss blood volume circulation disturbances.
	10.17 Describe the buffer system.
11.0	**Life Span Development:** Apply the integration of knowledge of the physiological, psychological, and sociological changes throughout human development. – The student will be able to:
	11.01 Compare, contrast and analyze the physiological and psychosocial characteristics of the following age groups to an early adult: 11.01.01 an infant 11.01.02 a toddler 11.01.03 pre-school child 11.01.04 school aged child 11.01.05 adolescent 11.01.06 middle aged adult

12.0	**Public Health:** Demonstrate the application of fundamental knowledge of principles of public health. – The student will be able to:
12.01	Review the EMT standards and benchmarks for the public health and apply a fundamental knowledge of the principles of public health, epidemiology, health promotion and illness and injury prevention.
13.0	**Principles of Pharmacology:** Demonstrate a complex depth, comprehensive breadth in the principles of pharmacology. – The student will be able to:
13.01	Differentiate among the chemical, generic (nonproprietary), and trade (proprietary) names of a drug.
13.02	List the four main sources of drug products.
13.03	Describe how drugs are classified.
13.04	List legislative acts controlling drug use and abuse in the United States.
13.05	Differentiate among Schedule I, II, III, IV, and V substances.
13.06	Use reference materials to research medications.
13.07	Discuss standardization of drugs.
13.08	Discuss investigational drugs, including the Food and Drug Administration (FDA) approval process and the FDA classifications for newly approved drugs.
13.09	Discuss the paramedic's responsibilities and scope of management pertinent to the administration of medications.
13.10	List and describe general properties of drugs.
13.11	List and describe liquid and solid drug forms.
13.12	List and differentiate all methods and routes of medication administration covered in the current National EMS Scope of Practice Model.
13.13	Describe the process called pharmacokinetics, and pharmacodynamics, including theories of drug action, drug-response relationship, factors altering drug responses, predictable drug responses, iatrogenic drug responses, and unpredictable adverse drug responses.
13.14	Describe specific medications used by rescuers in the prehospital setting.
13.15	Describe common unintended adverse effects of medication administration.
13.16	Discuss the prevention, recognition and management of adverse medication reactions.
13.17	Anticipate how various factors, such as age, body mass, and others, can alter drug responses.
13.18	Select the optimal medication and method of medication administration for patients with a particular clinical condition or situation.
14.0	**Medication Administration:** Demonstrate a complex depth, comprehensive breadth of medication administration within the scope of practice of the paramedic. – The student will be able to:

14.01	Review the specific anatomy and physiology pertinent to medication administration.
14.02	Discuss the paramedic's responsibilities and scope of management pertinent to the administration of medications.
14.03	Review mathematical principles and discuss equations as a basis for performing drug calculations.
14.04	Describe the indications, contraindications, procedure, equipment and risks associated with peripheral intravenous or external jugular access.
14.05	Describe the indications, equipment needed, technique used, precautions, and general principles of intraosseous needle placement and infusion.
14.06	Describe complications that can occur as a result of IV therapy.
14.07	Discuss the "six rights" of drug administration and correlate these with the principles of medication administration.
14.08	Describe the use of standard precautions and body substance isolation (BSI) procedures when administering a medication.
14.09	Prepare medications for administration from a variety of types of packaging, including vials, non-constituted vials, ampules, prefilled syringes, and packaging for intravenous solutions.
14.10	Describe the role of medical direction in medication administration and describe the difference between direct orders (online) and standing orders (off-line).
14.11	Explain why determining what medications (prescribed / OTC) a patient is taking is a critical aspect of patient assessment.
14.12	Describe the equipment needed and general principles of administering oral medications.
14.13	Describe the indications, equipment needed, techniques used, precautions, and general principles of administering medications by the following routes: 14.13.01 inhalation route 14.13.02 gastric tube 14.13.03 rectal route
14.14	Differentiate among the different percutaneous routes of medication administration.
14.15	Describe the purpose, equipment needed, techniques used, complications, and general principles for obtaining a blood sample.
14.16	Obtain venous and capillary blood for testing and discuss blood chemistry and normal values as referenced in the National EMS educational guidelines: Paramedic Instructional guidelines.
14.17	Demonstrate principles of medical asepsis in the administration of medications.
14.18	Synthesize a pharmacologic management plan including medication administration.
14.19	Demonstrate the procedure for disposal of contaminated items and supplies.
14.20	Demonstrate cannulation of peripheral or external jugular veins.
14.21	Demonstrate intraosseous needle placement and infusion.

	14.22 Demonstrate administration of medications by the following routes:	
	14.22.01	oral
	14.22.02	sublingual
	14.22.03	auto-injector
	14.22.04	inhalation route
	14.22.05	intranasal route.
	14.22.06	subcutaneous route.
	14.22.07	intramuscular route.
	14.22.08	intravenous route.
	14.22.09	intraosseous route.
15.0	**Emergency Medications:** Demonstrate a complex depth, comprehensive breadth of emergency medications within the scope of practice for the paramedic. – The student will be able to:	
	15.01 Identify medications used by the paramedic, including indications, contraindications, dosages, adverse reactions, side effects, and interactions for the following:	
	15.01.01	Airway management
	15.01.02	Respiratory
	15.01.03	Cardiovascular
	15.01.04	Neurologic conditions
	15.01.05	Gastrointestinal
	15.01.06	Miscellaneous medications
16.0	**Airway Management and Respiration:** Demonstrate a complex depth, comprehensive breadth of airway management and respiration within the scope of practice of the paramedic. – The student will be able to:	
	16.01 Explain the primary objective of airway maintenance.	
	16.02 Explain the differences between pediatric, adult and geriatric airway anatomy.	
	16.03 List the concentration of gases that comprise atmospheric air.	
	16.04 Describe the measurement of oxygen in the blood.	
	16.05 Describe the measurement of carbon dioxide in the blood.	
	16.06 Describe peak expiratory flow.	
	16.07 List factors that cause decreased oxygen concentrations in the blood.	
	16.08 List the factors that increase and decrease carbon dioxide production in the body.	

	16.09	Define pulses paradoxes.
	16.10	Describe indications, contraindications, advantages, disadvantages, complications, and technique for ventilating a patient with an automatic transport ventilator (ATV).
	16.11	Describe the indications, contraindications, advantages, disadvantages, complications, liter flow range, and concentration of delivered oxygen for supplemental oxygen delivery devices.
	16.12	Define, identify and describe a tracheostomy, stoma, and tracheostomy tube.
	16.13	Define, identify, and describe a laryngectomy.
	16.14	Describe the special considerations in airway management and ventilation for the pediatric patient.
	16.15	Describe the indications, contraindications, advantages, disadvantages, complications and equipment for rapid sequence intubation with neuromuscular blockade.
	16.16	Identify neuromuscular blocking drugs and other agents used in rapid sequence intubation.
	16.17	Describe the indications, contraindications, advantages, disadvantages, complications and equipment for sedation during intubation.
	16.18	Describe the indications, contraindications, advantages, disadvantages and complications for performing an open cricothyrotomy.
	16.19	Demonstrate the procedure for percutaneous cricothyrotomy.
	16.20	Identify and describe the function of the structures located in the upper and lower airway.
	16.21	Discuss the physiology of ventilation and respiration.
17.0	**Artificial Ventilation:** Demonstrate a complex breadth, comprehensive breadth of assessment and management utilizing artificial ventilation. – The student will be able to:	
	17.01	Perform pulse oximetry.
	17.02	Perform and interpret wave form capnography and colormetric in all age groups.
	17.03	Demonstrate proper use of airway and ventilation devices including administration of BIPAP/CPAP and PEEP devices.
	17.04	Demonstrate effective techniques of advanced airway management of the following: 17.04.01 orotracheal, 17.04.02 nasotracheal, 17.04.03 subglottic, 17.04.04 supraglottic, 17.04.05 digital intubation
	17.05	Describe and demonstrate methods of assessment for confirming correct placement of any airway device.
	17.06	Describe the indications, contraindications, advantages, disadvantages, complications, equipment and technique for extubation.

	17.07 Describe methods of endotracheal intubation in the pediatric patient.
	17.08 Demonstrate proper use of airway and ventilation devices.
	17.09 Demonstrate the procedure for the following : 17.09.01 lighted stylet 17.09.02 fiber optic
18.0	**Scene Size-Up:** Demonstrate a complex depth, comprehensive breadth of scene management. – The student will be able to:
	18.01 Describe common hazards found at the scene of a trauma and a medical patient.
	18.02 Discuss common mechanisms of injury/ nature of illness.
	18.03 Explain the rationale for crew members to evaluate scene safety prior to entering.
	18.04 Observe various scenarios and identify potential hazards.
	18.05 Demonstrate the scene-size-up.
19.0	**Primary Assessment:** Demonstrate a complex depth, comprehensive breadth of the primary assessment for all patient situations. – The student will be able to:
	19.01 Summarize the reasons for forming a general impression of the patient.
	19.02 Discuss and demonstrate methods of evaluating and assessing mental status.
	19.03 Categorize levels of consciousness in the pediatric, adult and geriatric patient.
	19.04 Discuss and demonstrate methods of assessing the airway in the pediatric, adult and geriatric patient.
	19.05 Describe and demonstrate methods used for assessing if a patient is breathing.
	19.06 Differentiate between the methods of assessing breathing and providing airway care to the pediatric, adult and geriatric patient.
	19.07 Differentiate between locating and assessing a pulse in the pediatric, adult and geriatric patient.
	19.08 Discuss the need for assessing the patient for external bleeding.
	19.09 Demonstrate the techniques for assessing the patient for external bleeding.
	19.10 Describe normal and abnormal findings when assessing skin color, temperature, and condition.
	19.11 Demonstrate the techniques for assessing if the patient has a pulse.
	19.12 Demonstrate the techniques for assessing the patient's skin color, temperature, and condition.
	19.13 Discuss and demonstrate prioritizing a patient for care and transport.

	19.14 Perform a detailed physical examination.
20.0	**History Taking:** Demonstrate a complex depth, comprehensive breath of the components of history taking. – The student will be able to:
	20.01 Describe the components and demonstrate techniques of patient history taking.
	20.02 Demonstrate the importance of empathy when obtaining a health history.
	20.03 Adapt communication strategies to communicate effectively with the following types of patients: patients of all ages; patients of various cultures; patients with sensory impairments; angry, hostile, uncooperative, silent or overly talkative patients; patients who are anxious, crying or depressed; patients who offer multiple complaints or symptoms; intoxicated patients.
21.0	**Secondary Assessment:** Demonstrate a complex depth, comprehensive breadth of techniques used for a secondary assessment. – The student will be able to:
	21.01 Describe the techniques of inspection, palpation, percussion, and auscultation for patients of all ages.
	21.02 Distinguish the importance of abnormal findings of the assessment of the skin.
	21.03 Differentiate normal and abnormal assessment findings of the mouth and pharynx.
	21.04 Appreciate the limitations of conducting a physical exam in the out-of-hospital environment.
	21.05 Demonstrate the examination of the patient including the following: 21.05.01 skin, hair and nails. 21.05.02 head and neck 21.05.03 eyes, ears and nose 21.05.04 mouth and pharynx 21.05.05 thorax and ventilation 21.05.06 peripheral vascular system 21.05.07 musculoskeletal system 21.05.08 nervous system
	21.06 Demonstrate the examination of the posterior chest including auscultation and percussion of the chest.
	21.07 Demonstrate the examination of the arterial pulse including location, rate, rhythm, and amplitude.
	21.08 Demonstrate special examination techniques of the cardiovascular examination.
	21.09 Demonstrate the examination of the abdomen including auscultation of the abdomen.
	21.10 Describe the evaluation of patient's perfusion status based on findings in the initial assessment.
	21.11 State the reasons for performing a rapid trauma assessment.
	21.12 Discuss the reason for performing a focused history and physical exam.

	21.13 Discuss the components of the detailed physical exam in relation to the techniques of examination.
	21.14 Demonstrate the external visual examination of the female genitalia.
	21.15 Demonstrate the examination of the male genitalia.
	21.16 Explain the reasons for identifying the need for additional help or assistance.
	21.17 State reasons for management of the cervical spine once the patient has been determined to be a trauma patient.
	21.18 Discuss the reasons for repeating the initial assessment as part of the on-going assessment.
	21.19 Describe the components of the on-going assessment.
	21.20 Discuss medical identification devices/ systems.
22.0	**Monitoring Devices:** Demonstrate a fundamental depth, foundational breadth of monitoring devices within the scope of practice of the paramedic. –The student will be able to:
	22.01 Describe the purpose, indications, procedure, normal findings, and limitations of the following patient monitoring technologies. 22.01.01 Continuous ECG monitoring 22.01.02 12-Lead ECG 22.01.03 Capnography (wave form) 22.01.04 Capnometry (colorimetric) 22.01.05 CO-oximetry 22.01.06 Methaglobin monitoring 22.01.07 Total hemoglobin 22.01.08 Basic blood chemistry 22.01.09 Ultrasound 22.01.10 other devices identified at the EMT level
	22.02 Demonstrate the use of the following patient monitoring technologies. 22.02.01 Continuous ECG monitoring 22.02.02 12-Lead ECG 22.02.03 Capnography (wave form) 22.02.04 Capnometry (colorimetric) 22.02.05 other devices identified at the EMT level
23.0	**Reassessment:** Demonstrate a complex depth, comprehensive breadth of how and when to perform a reassessment for all patient situations. –The student will be able to:
	23.01 Review the EMT standards and benchmarks for the reassessment section and demonstrate a complex depth and comprehensive breadth of how and when to perform a reassessment for all patient situations.

Course Number: EMS0211 Occupational Completion Point: A Paramedic II – 426 hours – SOC Code 29-2041	
24.0	**Medical Overview:** Demonstrate a complex depth and comprehensive breadth of pathophysiology, assessment, and management of medical complaints. – The student will be able to:
	24.01 Review the EMT standards and benchmarks for medical overview and demonstrate a complex depth and comprehensive breadth of pathophysiology, assessment and management of medical complaints.
25.0	**Neurology:** Demonstrate a complex depth and comprehensive breadth of neurologic disorders/emergencies for all age groups. – The student will be able to:
	25.01 Identify the risk factors associated with nervous system dysfunction.
	25.02 Review the anatomy and physiology of the organs and structures related to nervous system.
	25.03 Discuss the pathophysiology and demonstrate the assessment, and management of patients with the following conditions: : 25.03.01 coma 25.03.02 altered mental status 25.03.03 seizures 25.03.04 syncope 25.03.05 transient ischemic attack 25.03.06 stroke and intracranial hemorrhage 25.03.07 degenerative neurologic diseases 25.03.08 chronic alcoholism 25.03.09 back pain and non-traumatic spinal disorders
	25.04 Describe and differentiate the major types of seizures.
	25.05 Describe the types of stroke and intracranial hemorrhage.
	25.06 Describe the significance of the prevalence of neurologic disorders in the United States.
	25.07 Adapt the scene size-up, primary assessment, patient history, secondary assessment, and use of monitoring technology to meet the needs of patients with complaints and presentations related to neurologic disorders.
26.0	**Abdominal and Gastrointestinal Disorders:** Demonstrate a complex depth and comprehensive breadth of abdominal and gastrointestinal disorders/emergencies for all age groups. – The student will be able to:
	26.01 Review the anatomy and physiology of the organs and structures related to gastrointestinal diseases.
	26.02 Discuss the pathophysiology of inflammation and its relationship to acute abdominal pain.
	26.03 Differentiate between hemorrhagic and non-hemorrhagic abdominal pain.
	26.04 Describe the technique for performing a comprehensive physical examination on a patient complaining of abdominal pain.

	26.05 Discuss the pathophysiology and demonstrate the assessment, and management of patients with the following abdominal and gastrointestinal disorders: 26.05.01 Both Upper and lower gastrointestinal bleeding 26.05.02 Acute gastroenteritis. 26.05.03 Colitis. 26.05.04 Diverticulitis. 26.05.05 Appendicitis. 26.05.06 Peptic ulcer disease. 26.05.07 Bowel obstruction. 26.05.08 Crohn's disease. 26.05.09 Pancreatitis. 26.05.10 Esophageal varices. 26.05.11 Hemorrhoids. 26.05.12 Cholecystitis. 26.05.13 Acute hepatitis.
	26.06 Identify patients with risk factors for gastrointestinal emergencies.
	26.07 Adapt the scene size-up, primary assessment, patient history, secondary assessment, and use of monitoring technology to meet the needs of patients with complaints and presentations related to gastrointestinal disorders.
	26.08 Demonstrate how to auscultate the abdomen to assess for diminished, absent or abnormal bowel sounds.
27.0	**Immunology:** Demonstrate a complex depth, comprehensive breadth of immunology disorders/emergencies for all age groups. – The student will be able to:
	27.01 Define: 27.01.01 Allergic reaction. 27.01.02 Anaphylaxis 27.01.03 Antigens 27.01.04 Antibodies
	27.02 Review the anatomy and physiology of the organs and structures related to anaphylaxis.
	27.03 Describe the prevention of anaphylaxis and appropriate patient education.
	27.04 Discuss the pathophysiology of allergy and anaphylaxis.
	27.05 Describe the common methods of entry of substances into the body.
	27.06 List common antigens most frequently associated with anaphylaxis.
	27.07 Describe physical manifestations in anaphylaxis.
	27.08 Differentiate manifestations of an allergic reaction from anaphylaxis.
	27.09 Recognize the signs and symptoms related to anaphylaxis.

	27.10	Differentiate among the various treatment and pharmacological interventions used in the management of anaphylaxis.
	27.11	Develop a treatment plan based on field impression in the patient with allergic reaction and anaphylaxis.
28.0	**Infectious Diseases:** Demonstrate a complex depth, comprehensive breadth of assessment and management of a patient who may have an infectious diseases for all age groups. – The student will be able to:	
	28.01	Review the specific anatomy and physiology pertinent to infectious and communicable diseases.
	28.02	List and describe the steps of an infectious process.
	28.03	List and describe infectious agents, including bacteria, viruses, fungi, protozoans, and helminths (worms).
	28.04	Describe characteristics of the immune system, including the categories of white blood cells, the reticuloendothelial system (RES), and the complement system.
	28.05	Describe and discuss the rationale for the various types of PPE.
	28.06	Discuss the proper disposal of contaminated supplies (sharps, gauze sponges, tourniquets, etc.).
	28.07	Discuss disinfection of patient care equipment, and areas in which care of the patient occurred.
	28.08	Consistently demonstrate the proper use of body substance isolation.
	28.09	Perform an assessment of a patient with an infectious/communicable disease.
	28.10	Effectively and safely manage a patient with an infectious/communicable disease, including airway and ventilation care, support of circulation, pharmacological intervention, transport considerations, psychological support/communication strategies, and other considerations as mandated by local protocol.
	28.11	Explain public health principles related to infectious disease.
	28.12	Describe the roles of local, state, and federal agencies involved in infectious disease surveillance and outbreaks.
	28.13	Describe the interactions of the agent, host, and environment as determining factors in disease transmission.
	28.14	Explain the principles and practices of infection control in prehospital care.
	28.15	Describes the EMS professional’s responsibilities as well as their rights under the Ryan White Act.

	28.16 Discuss the causative agent, body systems affected and potential secondary complications, routes of transmission, susceptibility and resistance, signs and symptoms and demonstrate the patient management and protective/control measures, and immunization for the following infectious diseases: 28.16.01 HIV 28.16.02 Hepatitis A, B, C, D, E 28.16.03 Tuberculosis 28.16.04 Meningococcal meningitis (spinal meningitis) 28.16.05 Pneumonia 28.16.06 Tetanus 28.16.07 Varicella (chickenpox) 28.16.08 Mumps 28.16.09 Rubella (German measles) 28.16.10 Measles (rubeola, hard measles) 28.16.11 Influenza 28.16.12 Mononucleosis 28.16.13 gastroenteritis
	28.17 Discuss the characteristics of, and organisms associated with, febrile and afebrile respiratory disease, to include bronchiolitis, bronchitis, laryngitis, croup, epiglottitis, and the common cold.
	28.18 Describe the pathophysiology of infectious diseases of immediate concern to EMS providers.
	28.19 Describe the EMS provider's role in patient education and preventing disease transmission.
	28.20 Explain the pathophysiology, risk factors, assessment, and prehospital management of sepsis/systemic inflammatory response syndrome (SIRS).
29.0	**Endocrine Disorders:** Demonstrate a complex depth, comprehensive breadth in endocrine disorders/emergencies for all age groups. – The student will be able to:
	29.01 Identify the risk factors related to disorders of the endocrine system.
	29.02 Review the anatomy and physiology of organs and structures related to endocrinologic diseases.
	29.03 Discuss the pathophysiology and demonstrate the assessment, and management of patients with the following endocrinologic emergencies: 29.03.01 30.03.01 hypoglycemia (responsive and unresponsive) 29.03.02 30.03.02 hyperglycemia 29.03.03 30.03.03 diabetic ketoacidosis 29.03.04 30.03.04 Cushing's syndrome 29.03.05 30.03.05 Adrenal insufficiency 29.03.06 30.03.06 Pituitary disorders 29.03.07 30.03.07 Thyroid disorders
	29.04 Describe the mechanism of ketone body formation and its relationship to ketoacidosis.
	29.05 Describe the compensatory mechanisms utilized by the body to promote homeostasis relative to hypoglycemia.

	29.06 Develop a patient management plan based on field impression in the patient with an endocrinologic emergency.
	29.07 Demonstrate how to administer glucagon to a hypoglycemic patient.
30.0	**Psychiatric:** Demonstrate a complex depth, comprehensive breadth regarding the assessment and management of psychiatric disorders/emergencies for all age groups. – The student will be able to:
	30.01 Define behavior and distinguish between normal and abnormal behavior.
	30.02 Discuss the prevalence of behavior and psychiatric disorders.
	30.03 Discuss the factors that may alter the behavior or emotional status of an ill or injured individual.
	30.04 Describe the medical legal considerations for management of emotionally disturbed patients.
	30.05 Discuss the pathophysiology of behavioral and psychiatric disorders.
	30.06 Define the following terms: 30.06.01 Affect 30.06.02 Anger 30.06.03 Anxiety 30.06.04 Confusion 30.06.05 Depression 30.06.06 Fear 30.06.07 Mental status 30.06.08 Open-ended questions 30.06.09 Posture
	30.07 Describe the verbal techniques useful in managing the emotionally disturbed patient.
	30.08 Describe the circumstances when relatives, bystanders and others should be removed from the scene.
	30.09 Describe the techniques that facilitate the systematic gathering of information from the disturbed patient.
	30.10 Identify techniques for physical assessment in a patient with behavioral problems.
	30.11 Describe methods of restraint that may be necessary in managing the emotionally disturbed patient.
	30.12 List the risk factors (including behaviors) for suicide.
	30.13 Differentiate between the various behavioral and psychiatric disorders based on the assessment and history.
	30.14 Develop a patient management plan based on the field impressions.
	30.15 Demonstrate safe techniques for managing and restraining a violent patient.

31.0	**Cardiovascular:** Demonstrate a complex depth, comprehensive breadth of cardiovascular disorders/ emergencies for all age groups. – The student will be able to:
31.01	Describe the epidemiology, incidence, morbidity and mortality of cardiovascular disease.
31.02	Identify the risk factors of coronary artery disease.
31.03	Review the anatomy and physiology of the cardiovascular system.
31.04	Describe the blood flow pathway through the vascular system including the arteries, veins and associated structures.
31.05	Explain how the heart functions as a pump; including the concepts of cardiac output, stroke volume, heart rate, and ejection fraction.
31.06	Discuss the physiology of the cardiac cycle and the fluid dynamics associated with the cardiovascular system including Starling's Law, systole and diastole.
31.07	Identify the four properties that aid in the function of the heart including excitability, conductivity, automaticity, and contractility.
31.08	Define the terms: 31.08.01 depolarization 31.08.02 repolarization 31.08.03 pulse deficit 31.08.04 pulsus paradoxus 31.08.05 pulsus alternans 31.08.06 hypertensive emergency 31.08.07 cardiac tamponade 31.08.08 cardiogenic shock 31.08.09 cardiac arrest
31.09	List the ions involved in myocardial action potential and their primary and their primary function in this process.
31.10	Describe the events involved in the steps from excitation to contraction of the cardiac muscle fibers.
31.11	Identify the structure and course of all divisions and subdivisions of the cardiac conduction system.
31.12	Identify and describe how the heart's pacemaking control, rate, and rhythm are determined.
31.13	Compare and contrast the coronary artery distribution to the major portions of the cardiac conduction systems.
31.14	Identify the structures of the autonomic nervous system (ANS).
31.15	Identify the effect of the ANS on heart rate, rhythm and contractility.
31.16	Define and give examples of positive and negative inotropes, chronotropes and dromotropes.
31.17	Identify and describe the components of the focused history as it relates to the patient with cardiovascular compromise.

31.18	Explain the assessment and management of the following cardiovascular conditions.
31.19	Identify the normal characteristics of the point of maximal impulse (PMI).
31.20	Identify and define the normal and abnormal heart sounds.
31.21	Relate heart sounds to hemodynamic events in the cardiac cycle.
31.22	Explain the purpose of ECG monitoring and how ECG wave forms are produced.
31.23	Identify the components of the ECG rhythm strip and list any limitations.
31.24	Identify how heart rates, durations, and amplitudes may be determined from ECG tracings.
31.25	Describe the placement of leads and electrodes in 3 lead and 12 lead ECG monitoring.
31.26	Differentiate among the primary mechanisms responsible for producing cardiac dysrhythmias.
31.27	Describe a systematic approach to the analysis and interpretation of cardiac dysrhythmias.
31.28	Describe the dysrhythmias originating or sustained in the in the following areas: 31.28.01 sinus node 31.28.02 the AV junction 31.28.03 bundle branch system 31.28.04 atria 31.28.05 ventricles
31.29	Describe the process and the pitfalls of differentiation of wideQRS complex tachycardias.
31.30	Describe the conditions of pulseless electrical activity.
31.31	Describe the phenomena of reentry, aberration and accessory pathways.
31.32	Identify the ECG changes characteristically produced by electrolyte imbalances and specify the clinical implications.
31.33	Identify patient situations where ECG rhythm analysis is indicated.
31.34	Recognize the changes and any limitations on the ECG that may reflect evidence of myocardial ischemia and injury.
31.35	Compare manual defibrillation from cardioversion and synchronized cardioversion.
31.36	Describe the components of a transcutaneous pacer, its application and setting adjustments as well as the clinical indications and techniques for use.
31.37	Based on field impressions, identify the need for rapid intervention for the patient in cardiovascular compromise.

31.38	Discuss the pathophysiology and demonstrate the assessment, and management of patients following conditions including the development of a treatment plan: 31.38.01 Angina 31.38.02 Myocardial infarction STEMI/Non-STEMI 31.38.03 Congestive heart failure 31.38.04 Cardiac tamponade 31.38.05 Cardiogenic shock 31.38.06 Hypertension and acute hypertensive states 31.38.07 Cardiac arrest 31.38.08 Vascular disorders 31.38.09 Hypertrophic cardiomyopathies 31.38.10 Infectious diseases of the heart
31.39	Identify the drugs of choice, the rationale for use, clinical precautions and disadvantages and/or complications for the following conditions: 31.39.01 Angina 31.39.02 Myocardial infarction STEMI/Non-STEMI 31.39.03 Congestive heart failure 31.39.04 Cardiac tamponade 31.39.05 Cardiogenic shock 31.39.06 Hypertension and acute hypertensive states 31.39.07 Cardiac arrest 31.39.08 Vascular disorders 31.39.09 Hypertrophic cardiomyopathies 31.39.10 Infectious diseases of the heart
31.40	Describe the most commonly used pharmacological agents in the management of congestive heart failure in terms of therapeutic effect, dosages, routes of administration, side effects, and toxic effects.
31.41	List other clinical conditions that may mimic signs and symptoms of coronary artery disease and angina pectoris.
31.42	Compare fibrinolysis from percutaneous intervention as reperfusion techniques used in patients with AMI or suspected AMI and describe the "window of opportunity" as it pertains to reperfusion of a Myocardial infarction.
31.43	List the characteristics of a patient eligible for thrombolytic therapy.
31.44	Define the term "acute pulmonary edema" and describe its relationship to left ventricular failure.
31.45	Define preload, afterload and left ventricular end-diastolic pressure and relate each to the pathophysiology of heart failure.
31.46	Differentiate between early and late signs and symptoms of left ventricular failure and those of right ventricular failure.
31.47	Explain the clinical significance of paroxysmal nocturnal dyspnea.
31.48	Explain clinical significance of edema of the extremities and sacrum.

31.49	Describe how to determine if pulses paradoxus, pulses alternans, or electrical alternans is present.
31.50	Identify non-cardiac causes of cardiac arrest.
31.51	Identify the clinical significance of claudication and presence of arterial bruits in a patient with peripheral vascular disorders.
31.52	Describe the clinical significance of unequal arterial blood pressure readings in the arms.
31.53	Discuss the components of post resuscitation care including how to determine the return of spontaneous circulation (ROSC).
31.54	Explain how to confirm asystole using 3 lead ECG.
31.55	Identify circumstances and situations where resuscitation efforts would not be initiated.
31.56	Identify and list inclusion and exclusion criteria for termination of resuscitative efforts.
31.57	Identify communication and documentation protocols with medical direction and law enforcement used for termination of resuscitation efforts.
31.58	Apply knowledge of the epidemiology of cardiovascular disease to develop prevention strategies.
31.59	Defend the urgency in rapid determination of and rapid intervention of patients in cardiac arrest.
31.60	Defend the possibility of termination of resuscitative efforts in the out-of-hospital setting.
31.61	Demonstrate how to set and adjust the ECG monitor settings to varying patient situations.
31.62	Demonstrate how to record a 3, 4, 10 and 12 lead ECG.
31.63	Given the model of a patient with signs and symptoms of heart failure, position the patient to afford them comfort or relief.
31.64	Demonstrate how to determine if pulsus paradoxus, pulsus alternans, or electrical alternans is present.
31.65	Set up and apply a transcutaneous pacing system.
31.66	List the possible complications of pacing.
31.67	Demonstrate how to perform post-resuscitative care.
31.68	Demonstrate satisfactory performance of psychomotor skills of basic and advanced life support techniques according to the current American Heart Association Guidelines or its equivalent, including: 31.68.01 cardiopulmonary resuscitation 31.68.02 defibrillation 31.68.03 synchronized cardioversion 31.68.04 transcutaneous pacing
32.0	**Toxicology:** Demonstrate a complex depth, comprehensive breadth of the assessment and management of toxicology emergencies for all age groups. – The student will be able to:

32.01	Describe the epidemiology, incidence, morbidity and mortality of toxic emergencies.
32.02	Identify the risk factors of toxic emergencies.
32.03	Discuss the role of the Poison Control Center in the United States.
32.04	List the most common poisonings by ingestion.
32.05	Recognize the signs and symptoms related to the most common poisonings by ingestion.
32.06	Discuss the factors affecting the decision to induce vomiting in a patient with ingested poison.
32.07	Integrate pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the patient with the most common poisonings by ingestion.
32.08	Define poisoning by inhalation.
32.09	List the most common poisonings by inhalation.
32.10	Describe the pathophysiology of poisoning by inhalation.
32.11	Recognize the signs and symptoms related to the most common poisonings by inhalation.
32.12	Integrate pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the patient with the most common poisonings by inhalation.
32.13	Define poisoning by injection.
32.14	List the most common poisonings by injection.
32.15	Recognize the signs and symptoms related to the most common poisonings by injection.
32.16	Integrate pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the patient with the most common poisonings by injection.
32.17	Define poisoning by surface absorption.
32.18	List the most common poisonings by surface absorption.
32.19	Describe the pathophysiology of poisoning by surface absorption.
32.20	Recognize the signs and symptoms related to the most common poisonings by surface absorption.
32.21	Integrate pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for patients with the most common poisonings by surface absorption.
32.22	Define poisoning by overdose.
32.23	List the most common poisonings by overdose.

32.24	Describe the pathophysiology of poisoning by overdose.
32.25	Recognize the signs and symptoms related to the most common poisonings by overdose.
32.26	Integrate pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for patients with the most common poisonings by overdose.
32.27	Define drug abuse.
32.28	Define the following terms: 32.28.01 Substance or drug abuse 32.28.02 Substance or drug dependence 32.28.03 Tolerance 32.28.04 Withdrawal 32.28.05 Addiction
32.29	List the most commonly abused drugs (both by chemical name and street names).
32.30	Recognize the signs and symptoms related to the most commonly abused drugs.
32.31	Integrate pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for patients using the most commonly abused drugs.
32.32	List the clinical uses, street names, pharmacology, assessment finding and management for patient who have taken the following drugs or been exposed to the following substances: Cocaine, marijuana and cannabis compounds, Amphetamines and amphetamine-like drugs, Barbiturates, Sedative-hypnotics, Cyanide, Narcotics/opiates, cardiac medications, Caustics, common household substances, Drugs abused for sexual purposes/sexual gratification, Carbon monoxide, Alcohols, Hydrocarbons, Psychiatric medications, Newer anti-depressants and serotonin syndromes, Lithium, MAO inhibitors, Non-prescription pain medications, Nonsteroidal anti-inflammatory agents, Salicylates, Acetaminophen, Theophylline, Metals, Plants and mushrooms.

	32.33 Discuss the specific differences and considerations in the pathophysiology, assessment findings and treatment associated with a patient suffering from the following toxins and toxidromes: 32.33.01 Carbon Monoxide. 32.33.02 Cyanide. 32.33.03 Cardiac Medications 32.33.04 Organophosphates. 32.33.05 Caustic Substances. 32.33.06 Hydrocarbons. 32.33.07 Hydrofluoric Acid 32.33.08 Prescription Medications (pain relievers, psychiatric medications). 32.33.09 Alcohol, Alcoholism and withdrawal. 32.33.10 Tricyclic Antidepressants 32.33.11 Monoamine Oxidase Inhibitors 32.33.12 Newer Antidepressants and Serotonin Syndrome 32.33.13 Lithium 32.33.14 Salicylates 32.33.15 Acetaminophens. 32.33.16 NSAIDs 32.33.17 Theophylline 32.33.18 Metals (iron, lead, mercury). 32.33.19 Contaminated Food. 32.33.20 Poisonous plants and Mushrooms 32.33.21 Animal bites, Insect Stings 32.33.22 Commonly Abused Drugs
	32.34 Discuss common causative agents, pharmacology, assessment findings and management for a patient with food poisoning.
	32.35 Discuss common offending organisms, pharmacology, assessment findings and management for a patient with a bite or sting.
	32.36 Develop a patient management plan based on field impression in the patient exposed to a toxic substance.
	32.37 Describe the epidemiology of toxicologic disorders and substance abuse.
	32.38 Explain the proper procedures for transporting a patient exposed to a toxic chemical to a receiving facility.
	32.39 Demonstrate the steps for assessment and management of the suspected poisoning or overdose patient.
33.0	**Respiratory:** Demonstrate a complex depth, comprehensive breadth of the assessment and management of respiratory disorders/emergencies for all age groups. – The student will be able to:
	33.01 Discuss the epidemiology, morbidity, and mortality of respiratory illness in the United States.
	33.02 Define hypoventilation and hyperventilation, and outline the conditions with which they are often associated.
	33.03 Review the anatomy, physiology and functions of the respiratory system.

33.04	Explain how gas exchange occurs at the interface of the alveoli and the pulmonary capillary bed.
33.05	Describe the physiology of respiration including nervous, cardiovascular, muscular, chemical, renal respiratory control mechanisms and ventilation-perfusion mismatch.
33.06	Discuss those factors that contribute to the formation of a general impression and degree of respiratory distress.
33.07	Identify breathing patterns that are associated with respiratory distress and neurologic insults and their correlation with the signs of increased work of breathing.
33.08	Differentiate between normal and abnormal breath sounds and its physiologic significance.
33.09	Discuss abnormal assessment findings associated with pulmonary diseases and conditions.
33.10	Explain how to access the adequacy of the circulation of a patient with dyspnea.
33.11	Discuss the way transport decisions are made for patients with respiratory distress.
33.12	Describe the interventions available for treating patients with respiratory emergencies.
33.13	Describe those devices used to monitor patients with respiratory complaints.
33.14	Discuss those complications which cause the COPD patient to decompensate.
33.15	Explain the concepts of hypoxic drive and auto-PEEP as they relate to the COPD patient.
33.16	Discuss the pathophysiology and demonstrate the assessment, and management of patients with the following respiratory conditions: 33.16.01 pulmonary infections (upper and lower airway) 33.16.02 atelectasis 33.16.03 anatomic or foreign body obstruction 33.16.04 aspiration 33.16.05 asthma 33.16.06 emphysema 33.16.07 chronic bronchitis 33.16.08 spontaneous pneumothorax 33.16.09 pleural effusion 33.16.10 pulmonary embolism 33.16.11 cancer 33.16.12 toxic inhalations 33.16.13 pulmonary edema 33.16.14 acute respiratory distress syndrome (ARDS) 33.16.15 Pneumonia 33.16.16 Neoplasms of the lung 33.16.17 Hyperventilation syndrome

	33.17 Compare various airway and ventilation techniques used in the management of pulmonary diseases.
	33.18 Review the pharmacological preparations that paramedics use for management of respiratory diseases and conditions.
	33.19 Review the use of equipment used during the physical examination of patients with complaints associated with respiratory diseases and conditions.
	33.20 Describe the variations of respiratory anatomy and the pathophysiology of respiratory disease across the life spans.
34.0	**Hematology:** Demonstrate a complex depth, foundational breadth of the assessment, and management of hematology disorders/ emergencies for all age groups. – The student will be able to:
	34.01 Identify the role of heredity in the risk for hematologic disorders.
	34.02 Review the anatomy of the hematopoietic system.
	34.03 Describe volume and volume-control related to the hematopoietic system.
	34.04 Describe normal red blood cell (RBC) production, function and destruction.
	34.05 Explain the significance of the hematocrit with respect to red cell size and number.
	34.06 Explain the correlation of the RBC count, hematocrit and hemoglobin values.
	34.07 Define anemia.
	34.08 Recognize medications used to decrease the risk of thrombosis.
	34.09 Describe normal white blood cell (WBC) production, function and destruction.
	34.10 Identify alterations in immunologic response.
	34.11 List the leukocyte disorders.
	34.12 Describe platelets with respect to normal function, life span and numbers.
	34.13 Describe the components of the hemostatic mechanism.
	34.14 Describe the function of coagulation factors, platelets and blood vessels necessary for normal coagulation.
	34.15 Identify blood groups.
	34.16 Identify the components of physical assessment as they relate to the hematologic system.

	34.17 Discuss the pathophysiology and demonstrate the assessment, and management of patients with the following conditions: 34.17.01 Anemia 34.17.02 Leukemia 34.17.03 Lymphomas 34.17.04 Polycythemia 34.17.05 Disseminated intravascular coagulopathy 34.17.06 Hemophilia 34.17.07 Sickle cell disease 34.17.08 Multiple myeloma 34.17.09 Leukopenia/neutropenia 34.17.10 Leukocytosis 34.17.11 Thrombocytosis 34.17.12 Thrombocytopenia
	34.18 Integrate pathophysiological principles into the assessment of a patient with hematologic disease.
35.0	**Genitourinary/Renal:** Demonstrate a complex depth, comprehensive breadth of genitourinary and renal emergencies all age groups. – The student will be able to:
	35.01 Describe the epidemiology, incidence, morbidity, mortality, and risk factors of urological emergencies.
	35.02 Review the anatomy and physiology of the organs and structures related to urogenital diseases.
	35.03 Define referred pain and visceral pain as it relates to urology.
	35.04 Describe the technique for performing a comprehensive physical examination of a patient complaining of abdominal pain.
	35.05 Discuss the pathophysiology and demonstrate the assessment, and management of patients of the following urologic and renal conditions: 35.05.01 Acute renal failure 35.05.02 Chronic renal failure 35.05.03 Complications related to hemodialysis and peritoneal dialysis. 35.05.04 Renal Calculi 35.05.05 Priapism 35.05.06 Testicular torsion 35.05.07 Urinary tract infection
	35.06 Apply the epidemiology to develop prevention strategies for urological emergencies.
	35.07 Integrate pathophysiological principles to the assessment of a patient with abdominal pain.
	35.08 Synthesize assessment findings and patient history information to accurately differentiate between pain of a urogenital emergency and that of other origins.
	35.09 Develop, execute, and evaluate a treatment plan based on the field impression made in the assessment.

	35.10 Adapt the scene size-up, primary assessment, patient history, secondary assessment, and use of monitoring technology to meet the needs of patients with complaints and presentations related to urologic and renal disorders.
36.0	**Gynecology:** Demonstrate a complex depth, comprehensive breadth of the assessment findings and the management of gynecology disorders/emergencies for all age groups. – The student will be able to:
	36.01 Review the anatomic structures and physiology of the female reproductive system.
	36.02 Identify the normal events of the menstrual and ovarian cycle including: 36.02.01 Proliferative phase 36.02.02 Secretory phase 36.02.03 Menstrual phase 36.02.04 Menopause
	36.03 Explain how to recognize a gynecological emergency.
	36.04 Discuss the pathophysiology and demonstrate the assessment, and management of patients with specific gynecological emergencies: 36.04.01 Infection (including Pelvic inflammatory disease, Bartholin's abscess, and vaginitis/vulvovaginitis) 36.04.02 Ovarian cyst and ruptured ovarian cyst 36.04.03 Ovarian torsion 36.04.04 Endometriosis 36.04.05 Dysfunctional uterine bleeding 36.04.06 Prolapsed uterus 36.04.07 Vaginal foreign body 36.04.08 Vaginal Hemorrhage 36.04.09 Ectopic Pregnancy
	36.05 Describe the importance of maintaining a patient's modesty and privacy while still being able to obtain necessary information.
	36.06 Defend the need to provide care for a patient of sexual assault, while still preventing destruction of crime scene information.
	36.07 Demonstrate how to assess a patient with a gynecological complaint.
	36.08 Demonstrate how to provide care for a patient with: 36.08.01 Excessive vaginal bleeding 36.08.02 Abdominal pain 36.08.03 Sexual assault.
37.0	**Non-Traumatic Musculoskeletal Disorders:** Demonstrate a fundamental depth, foundation breadth of the assessment and management of non-traumatic fractures for all age groups. – The student will be able to:
	37.01 Discuss the epidemiology of non-traumatic musculoskeletal disorders.

	37.02 Discuss various non-traumatic musculoskeletal disorders such as: 37.02.01 osteomyelitis and tumors 37.02.02 disc disorders, lower back pain (cauda equine syndrome, sprain, strain.) 37.02.03 joint abnormalities 37.02.04 muscle abnormalities 37.02.05 overuse syndrome 37.02.06 soft tissue infections
38.0	**Diseases of the Eyes, Ears, Nose , and Throat :** Demonstrate a fundamental depth, foundational breadth of the assessment and management of common or major diseases of the eyes, ears, nose and throat for all age groups. – The student will be able to:
	38.01 Relate the anatomy and physiology of the eyes, ears, nose, and throat to the pathophysiology and assessment of patients with diseases of the eyes, ears, nose, and throat.
	38.02 Discuss the pathophysiology and demonstrate the assessment, and management of patients with various eye diseases/injuries including: 38.02.01 Burns of eye and adnexa 38.02.02 Conjunctivitis 38.02.03 Corneal abrasions 38.02.04 Foreign body 38.02.05 Inflammation of the eyelid 38.02.06 Glaucoma 38.02.07 Hyphema 38.02.08 Iritis 38.02.09 Papilledema 38.02.10 Retinal detachment and defect 38.02.11 Cellulitis of orbit
	38.03 Discuss the pathophysiology and demonstrate the assessment, and management of patients with various ear diseases/injuries including: 38.03.01 Foreign body 38.03.02 Impacted cerumen 38.03.03 Labyrinthitis 38.03.04 Meniere's disease 38.03.05 Otitis external and media 38.03.06 Perforated tympanic membrane
	38.04 Discuss the pathophysiology and demonstrate the assessment, and management of patients with various nose diseases/injuries including: 38.04.01 Epistaxis 38.04.02 Foreign body intrusion 38.04.03 Rhinitis 38.04.04 Sinusitis

	38.05 Discuss the pathophysiology and demonstrate the assessment, and management of patients with oropharynx/throat diseases/injuries including: 38.05.01 Dentalgia and dental abscess 38.05.02 Diseases of oral soft tissue/ Ludwig's angina 38.05.03 Foreign body intrusion 38.05.04 Epiglottitis 38.05.05 Laryngitis 38.05.06 Tracheitis 38.05.07 Oral candidiasis 38.05.08 Peritonsillar abscess 38.05.09 Pharyngitis/tonsillitis 38.05.10 Temporomandibular joint disorders
39.0	**Shock and Resuscitation:** Demonstrate the integration of a comprehensive knowledge of causes and pathophysiology into the management of shock and respiratory failure. – The student will be able to:
	39.01 Describe the epidemiology, including: premorbid and comorbid conditions and prevention strategies for shock and hemorrhage.
	39.02 Review the anatomy and physiology of the cardiovascular and respiratory systems.
	39.03 Discuss the physiology of blood flow during normal states, peri-arrest, cardiac arrest, and shock.
	39.04 Discuss and demonstrate the assessment and management of shock.
	39.05 Review and demonstrate the management of external hemorrhage.
	39.06 Differentiate between the administration rate and amount of IV fluid in a patient with controlled versus uncontrolled hemorrhage.
	39.07 Relate internal hemorrhage to the assessment findings of compensated and decompensated hemorrhagic shock.
	39.08 Review the following for the cardiac arrest victim: 39.08.01 Epidemiology 39.08.02 Pathophysiology 39.08.03 Physiology of blood flow during external chest compressions 39.08.04 Resuscitation success/research
	39.09 Review defibrillation and cardioversion to include manual techniques, automatic, and semi-automated devices.

	39.10 Discuss causes, pathophysiology and management of special arrest and peri-arrest conditions: 39.10.01 Electrolyte disorders 39.10.02 Toxic exposures 39.10.03 Drowning 39.10.04 Hypothermia 39.10.05 Near-Fatal Asthma 39.10.06 Anaphylaxis 39.10.07 Trauma 39.10.08 Pregnancy 39.10.09 Electrical Shock and lightning strikes
	39.11 Review post resuscitative care include, temperature regulation, glucose/electrolyte management.
	39.12 Discuss and demonstrate the assessment and management of internal hemorrhage.
	39.13 Discuss the stages and classifications of hemorrhage.
	39.14 Discuss the pathophysiology and demonstrate the assessment and management of the different types of shock.
	39.15 Describe the effects of decreased perfusion at the capillary level.
	39.16 Relate pulse pressure changes to perfusion status.
	39.17 Relate orthostatic vital sign changes to perfusion status.
	39.18 Define and differentiate between compensated and decompensated shock for all types of shock.
	39.19 Discuss the complications of shock.
	39.20 Discuss and differentiate the physiological manifestations of shock across the age continuum.
	39.21 Differentiate between the normotensive, hypotensive, or profoundly hypotensive patient.
	39.22 Differentiate between the administration of fluid in the normotensive, hypotensive, or profoundly hypotensive patient.
	39.23 Develop, execute and evaluate a treatment plan based on the field impression for the hemorrhage or shock patient.
	39.24 Discuss the destination decision for patients in varying types of shock.
	39.25 Demonstrate how to manage a patient suffering from an abnormal heart rate or rhythm.
40.0	**Trauma Overview:** Demonstrate a complex depth, comprehensive breadth of pathophysiology, assessment and management of the trauma patient for all age groups. – The student will be able to:
	40.01 Discuss the incidence, morbidity, and mortality of blast injuries.
	40.02 Predict blast injuries based on mechanism of injury, including primary, secondary and tertiary.

	40.03 Discuss the effects of an explosion within an enclosed space on a patient.
	40.04 Defend the components of a comprehensive trauma system and the levels of trauma centers.
	40.05 Describe the criteria for transport to a trauma center.
	40.06 Explain the rational for utilizing air medical transport in the trauma patient.
	40.07 Review energy and force as they relate to trauma.
	40.08 Explain laws of motion and energy and apply the kinetic energy equation.
	40.09 Describe the pathophysiology of the head, spine, thorax, and abdomen that result from the above forces.
	40.10 List suspected injuries from the different causes of trauma: 40.10.01 Motor vehicles (restrained and un-restrained) 40.10.02 Frontal/head on 40.10.03 Lateral or side impacts 40.10.04 Rear impacts 40.10.05 Rotational impacts 40.10.06 Rollovers 40.10.07 Motorcycles 40.10.08 Pedestrian (include the differences for pediatric patient) 40.10.09 Falls from heights 40.10.10 Penetrating 40.10.11 Blasts
	40.11 Discuss and demonstrate the State of Florida's trauma scorecard methodologies as required by Florida Administrative Code and Florida Statute
	40.12 Explain the National Trauma Triage Protocol of Injured Patients.
41.0	**Bleeding:** Demonstrate a complex depth, comprehension breadth of pathophysiology, assessment and management of bleeding for all age groups. – The student will be able to:
	41.01 Discuss the compensatory mechanism in hemorrhagic shock.
	41.02 Discuss the administration of medications to assist in the maintenance of homeostasis.
	41.03 Discuss the maintenance of tissue oxygenation in a bleeding patient.
	41.04 Defend and differentiate the type and use of IV fluids for fluid resuscitation in hemorrhagic shock.
	41.05 Demonstrate the different methods/modalities of controlling bleeding.
42.0	**Chest Trauma:** Demonstrate a complex depth, comprehensive breadth of pathophysiology, assessment, and management of chest trauma for all age groups. – The student will be able to:

42.01 Review the anatomy and physiology of the organs and structures related to thoracic injuries.

42.02 Review the pathophysiology and Mechanism of Injury (MOI) of the following injuries, including:

- 42.02.01 Myocardial injuries
  - 42.02.01.1 pericardial tamponade
  - 42.02.01.2 myocardial contusion
  - 42.02.01.3 myocardial rupture
- 42.02.02 Vascular injury
  - 42.02.02.1.1 Aortic Dissection
  - 42.02.02.1.2 Pulmonary contusion
- 42.02.03 Hemothorax
- 42.02.04 Pneumothorax
- 42.02.05 Hemopneumothorax
- 42.02.06 Cardiac Tamponade
- 42.02.07 Commotio Cordis
- 42.02.08 Tracheobronchial disruption
- 42.02.09 Diaphragmatic rupture and injury
- 42.02.10 Tramatic asphyxia
- 42.02.11 Rib fracture
- 42.02.12 Flail segment
- 42.02.13 Sternal fracture

42.03 Discuss and demonstrate the assessment and management of the patient for each the following:

- 42.03.01 thoracic injuries.
- 42.03.02 chest wall injuries.
- 42.03.03 lung injuries.
- 42.03.04 myocardial injuries.
- 42.03.05 vascular injuries.
- 42.03.06 diaphragmatic injuries.
- 42.03.07 tracheo-bronchial injuries
- 42.03.08 traumatic asphyxia.

42.04 Identify the need for rapid intervention and transport of the patient for each of the following:

- 42.04.01 thoracic injuries.
- 42.04.02 chest wall injuries.
- 42.04.03 lung injuries.
- 42.04.04 myocardial injuries.
- 42.04.05 vascular injuries.
- 42.04.06 diaphragmatic injuries.
- 42.04.07 esophageal injuries
- 42.04.08 tracheo-bronchial injuries
- 42.04.09 traumatic asphyxia.

42.05 Assist with the insertion of a chest tube and when in place monitor and manage chest tube patency.

	42.06 Discuss and demonstrate the assessment and management of a patient with a thoracic injury.
	42.07 Integrate the pathophysiological principles to the assessment of a patient with a thoracic injury.
	42.08 Develop a patient management plan based on the field impression.
	42.09 Recognize the need for the use of a thorough assessment to determine a differential diagnosis and treatment plan for thoracic trauma.
	42.10 Demonstrate a clinical assessment for a patient with suspected thoracic trauma.
	42.11 Demonstrate the following techniques of management for thoracic injuries: Needle decompression, Fracture stabilization, Elective intubation, ECG monitoring, Oxygenation and ventilation.
43.0	**Abdominal and Genitourinary Trauma:** Demonstrate a complex depth, comprehensive breadth of pathophysiology, assessment, and management of abdominal and genitourinary trauma for all age groups. – The student will be able to:
	43.01 Review the anatomy and physiology of organs and structures related to abdominal injuries.
	43.02 Discuss the abdominal vascular structures.
	43.03 Describe the mechanism of injury for and types of open and closed abdominal and retroperitoneal injuries involving seat belts, penetrating, blunt and evisceration.
	43.04 Discuss and explain the pathophysiology for: 43.04.01 Pelvic fractures. 43.04.02 Solid organ injuries 43.04.03 Hollow organ injuries 43.04.04 Abdominal vascular injuries 43.04.05 Retroperitoneal space (kidneys) 43.04.06 Genitourinary system
	43.05 Describe and demonstrate the assessment and management for: 43.05.01 Pelvic fractures. 43.05.02 Solid organ injuries 43.05.03 Hollow organ injuries 43.05.04 Abdominal vascular injuries 43.05.05 Retroperitoneal space (kidneys) 43.05.06 Genitourinary system
	43.06 Develop a patient management plan for a patient with abdominal injuries, based upon field impression.
	43.07 Describe the epidemiology, including the morbidity/mortality and prevention strategies for abdominal vascular injuries.
	43.08 Integrate the pathophysiological principles to the assessment of a patient with abdominal injuries.
	43.09 Develop and demonstrate the management of a patient with an impaled object, evisceration and shock.

	43.10 Discuss the variations in symptoms, signs and treatment of patients across the ages.
	43.11 Discuss the emotional treatment associated with abdominal and genitourinary injuries.
44.0	**Orthopedic Trauma:** Demonstrate a fundamental depth, foundational breadth of pathophysiology, assessment, and management of orthopedic trauma for all age groups. – The student will be able to:
	44.01 Review the anatomy and physiology of the musculoskeletal system, include the healing process.
	44.02 Discuss types of musculoskeletal injuries: 44.02.01 fracture (open and closed – epiphyseal, greenstick, and torus), 44.02.02 dislocation/fracture, 44.02.03 sprain 44.02.04 strain
	44.03 Discuss the pathophysiology and potential complications of orthopedic injuries.
	44.04 Discuss and demonstrate the patient assessment techniques and findings for orthopedic injuries.
	44.05 Explain the 6 “P” orthopedic injury assessment.
	44.06 Discuss the general guidelines for management of orthopedic injuries: 44.06.01 Heat therapy 44.06.02 Cold therapy 44.06.03 Splinting 44.06.04 Medication administration (analgesics and anxiolytics)
	44.07 Discuss the pathophysiology of open and closed fractures.
	44.08 Discuss and demonstrate the assessment and management of specific orthopedic injuries: 44.08.01 Shoulder girdle 44.08.02 Humeral fractures 44.08.03 Elbow 44.08.04 Forearm 44.08.05 Wrist and Hand 44.08.06 Pelvis 44.08.07 Hip 44.08.08 Femoral shaft 44.08.09 Knee 44.08.10 Tibia and Fibula 44.08.11 Ankle 44.08.12 Calcaneus

	44.09 Discuss the pathophysiology and management of dislocations: 44.09.01 Shoulder girdle 44.09.02 Elbow 44.09.03 Wrist and hand 44.09.04 Hand 44.09.05 Hip 44.09.06 Knee
	44.10 Discuss the out-of-hospital management of dislocation/fractures, including splinting and realignment.
	44.11 Explain the importance of manipulating a knee dislocation/fracture with an absent distal pulse.
	44.12 Define luxation and subluxation.
	44.13 Discuss and demonstrate the assessment and management of sprains and strains.
	44.14 Review the pathophysiology and mechanism of injury for compartment and crush syndrome.
	44.15 Discuss and demonstrate the assessment and management of compartment and crush syndrome: 44.15.01 Destination decision 44.15.02 Rhabodomylysis
	44.16 Discuss the pathophysiology, and demonstrate the assessment and management of a tendon injury to the knee (patellar), shoulder and Achilles.
	44.17 Develop a patient management plan for the musculoskeletal injury based on the field impression.
	44.18 Recognize the use of pain management in the treatment of musculoskeletal injuries.
45.0	**Soft Tissue Trauma:** Demonstrate a complex depth, comprehensive breadth of pathophysiology, assessment, and management of soft tissue trauma for all age groups. – The student will be able to:
	45.01 Review anatomy and physiology and identify the major functions of the integumentary system.
	45.02 Discuss the pathophysiology of soft tissue injuries and the healing process including: 45.02.01 Inflammation 45.02.02 Epithelialization 45.02.03 Neurovascularization 45.02.04 Collagen Synthesis 45.02.05 Alterations in would healing 45.02.06 Abnormal scar formation
	45.03 Differentiate between the following types of closed soft tissue injuries: contusions, hematoma and crush injuries.
	45.04 Review the assessment findings and management associated with closed soft tissue injuries.
	45.05 Differentiate between the following types of open soft tissue injuries: abrasions, lacerations, major arterial lacerations, avulsions, impaled objects, amputations, incisions, crush injuries, blast injuries, and penetrations/punctures.

45.06	Review the pathophysiology of open wounds.
45.07	Review between the various management techniques for hemorrhage control of open soft tissue injuries, including but not limited to: direct pressure, pressure dressing, and tourniquet application.
45.08	Integrate pathophysiological principles to the assessment of a patient with a soft tissue injury and synthesize and demonstrate a treatment plan.
45.09	Formulate treatment priorities for patients with soft tissue injuries in conjunction with airway/face/neck trauma, thoracic trauma (open/closed), and abdominal trauma.
45.10	Defend the rationale explaining why immediate life-threats must take priority over wound closure.
45.11	Demonstrate the proper use of any Morgan□type lens for irrigation of the eye.
45.12	Describe the epidemiology, including incidence, mortality/ morbidity, risk factors, and prevention strategies for the patient with a burn injury.
45.13	Describe the pathophysiologic complications and systemic complications of a burn injury.
45.14	Review and describe types of burn injuries, including a thermal burn, an inhalation burn, a chemical burn, an electrical burn, and a radiation exposure.
45.15	Review and describe the depth classifications of burn injuries, including a superficial burn, a partial-thickness burn, a full-thickness burn, and other depth classifications described by local protocol.
45.16	Demonstrate the methods for determining body surface area percentage of a burn injury including the "rules of nines," the "rules of palms," and other methods described by local protocol.
45.17	Review and describe the severity of a burn including a minor burn, a moderate burn, a severe burn, and other severity classifications described by local protocol.
45.18	Describe special considerations for a pediatric patient with a burn injury.
45.19	Discuss conditions associated with burn injuries, including: 45.19.01 Trauma 45.19.02 blast injuries 45.19.03 airway compromise 45.19.04 respiratory compromise 45.19.05 child abuse
45.20	Describe the management of a burn injury, including airway and ventilation, circulation, pharmacological, non-pharmacological, transport considerations, psychological support/ communication strategies, and other management described by local protocol.
45.21	Describe the pathophysiology of a thermal burn injury.
45.22	Describe the pathophysiology and assessment findings of a burn from the following causes: 45.22.01 Inhalation 45.22.02 Chemicals 45.22.03 electricity

	45.23 Describe and demonstrate the assessment and management of a thermal, inhalation, electrical and chemical burn injury and radiation exposure, including: 45.23.01 airway and ventilation 45.23.02 circulation 45.23.03 pharmacological, non-pharmacological 45.23.04 transport considerations 45.23.05 psychological support/ communication strategies
	45.24 Describe the types of chemicals and their burning processes and a chemical burn injury to the eye.
	45.25 Describe the pathophysiology of a radiation exposure, including the types and characteristics of ionizing radiation.
	45.26 Identify and describe the severity of a radiation exposure.
	45.27 Develop, execute and evaluate a management plan based on the field impression for the patient with thermal, inhalation, chemical, electrical, and radiation burn injuries.
46.0	**Head, Face, Neck, and Spine:** Demonstrate a fundamental depth, foundational breadth of head, face, neck, and spine trauma for all age groups. – The student will be able to:
	46.01 Differentiate between facial injuries based on the assessment and history.
	46.02 Relate assessment findings associated with head, facial and neck injuries to pathophysiology.
	46.03 Develop a patient management plan based on patient assessment and a field impression for injuries to the following areas: 46.03.01 Eye(s) 46.03.02 Nose 46.03.03 Throat/neck 46.03.04 Face 46.03.05 Mouth 46.03.06 Ear(s)
	46.04 Formulate a field impression for a patient with an injury for the following areas based on the assessment findings: 46.04.01 Eye(s) 46.04.02 Nose 46.04.03 Throat/neck 46.04.04 Face 46.04.05 Mouth 46.04.06 Ear(s)
	46.05 Distinguish between head injury and brain injury.
	46.06 Define and explain the process involved with each of the levels of increasing ICP.
	46.07 Identify the need for rapid intervention and transport of the patient with a head/brain injury.
	46.08 Describe and demonstrate the assessment and general management of the head/ brain injury patient, including pharmacological and non-pharmacological treatment.

46.09	Explain the pathophysiology of skull fracture and intracranial hemorrhage, including epidural, subdural, intracerebral, and subarachnoid.
46.10	Develop a management plan for a patient for each of the following conditions: 46.10.01 skull fracture 46.10.02 cerebral contusion 46.10.03 intracranial hemorrhage 46.10.04 epidural, subdural, intracerebral, and subarachnoid
46.11	Differentiate between traumatic and non-traumatic spinal injuries based on the assessment and history.
46.12	Describe the pathophysiology of non-traumatic spinal injury, including but not limited to, low back pain, herniated intervertebral disk and spinal cord tumors.
46.13	Describe and demonstrate the assessment and management of non- traumatic spinal injuries.
46.14	Describe the pathophysiology of traumatic spinal injury related to: 46.14.01 spinal shock 46.14.02 spinal neurogenic shock 46.14.03 quadriplegia/paraplegia, 46.14.04 Incomplete cord injury/cord syndromes, including central cord syndrome, anterior cord syndrome and Brown-Sequard syndrome.
46.15	Discuss and demonstrate the assessment and management of spine trauma including dislocations/subluxations, fractures, and sprains/strains.
46.16	Develop a management plan for a patient with spine trauma including dislocations/subluxations, fractures, and sprains/strains.
46.17	Develop a patient management plan for both a traumatic and a non-traumatic spinal injury based on the field impression.
46.18	Demonstrate a clinical assessment to determine the proper management modality for a patient for both a suspected traumatic spinal injury and a non-traumatic spinal injury.
46.19	Demonstrate spinal motion restriction of the urgent and non-urgent patient with assessment findings of spinal injury from the following presentations: supine, prone, semi-prone, sitting, standing.
	46.19.01 Given a scenario, defend whether or not to remove a helmet prior to transport of a patient.
46.20	Demonstrate various methods for stabilization and removal of a helmet.
46.21	Discuss and demonstrate the assessment and management of each of the following: 46.21.01 Perforated tympanic membranes. 46.21.02 orbital fracture 46.21.03 mandibular fractures
46.22	Develop a management plan for a patient for each of the following: 46.22.01 Perforated tympanic membranes. 46.22.02 orbital fracture 46.22.03 mandibular fractures

47.0	**Nervous System Trauma:** Demonstrate a fundamental depth, foundational breadth of nervous system trauma for all age groups. – The student will be able to:
	47.01 Review the anatomy and physiology of the central nervous system, brain, spinal cord, skull and spinal column.
	47.02 Discuss pathophysiology of the following nervous system injury including: 47.02.01 Cauda Equine syndrome 47.02.02 Peripheral nerve injuries 47.02.03 Intracerebral hemorrhages 47.02.04 Cranial fractures 47.02.05 Brain tissue injuries 47.02.06 Spinal cord injuries
	47.03 Discuss the mechanism of injury which would result in a nervous system injury.
	47.04 Discuss the specific assessment (s) for nervous system injuries including: 47.04.01 Brown-Sequard syndrome 47.04.02 Cauda Equine syndrome 47.04.03 Anterior cord syndrome 47.04.04 Central cord syndrome 47.04.05 Intracerebral hemorrhage
	47.05 Discuss the pathophysiology of a traumatic brain injury and spinal shock.
	47.06 Develop a management plan for a patient with traumatic brain injury and spinal shock.
	47.07 Synthesize and demonstrate the spinal motion restriction technique for the different spinal cord injuries.
	47.08 Discuss the research involving the management of nervous system injuries and patient management.
48.0	**Special Considerations in Trauma:** Demonstrate a complex depth, comprehensive breadth of special considerations in trauma for all age groups. – The student will be able to:
	48.01 All trauma objectives should integrate the assessment and management differences associated with the following special populations: 48.01.01 Pregnancy 48.01.02 Pediatric 48.01.03 Geriatric 48.01.04 Cognitively impaired
49.0	**Environmental Emergencies:** Demonstrate a complex depth, comprehensive breadth of environmental emergencies for all age groups. – The student will be able to:
	49.01 Define "environmental emergency”.

49.02	Discuss the pathophysiology and MOI of the following: 49.02.01 Drowning and water related incidents 49.02.02 temperature-related illness 49.02.03 bites and envenomation 49.02.04 dysbarism such as high-altitude edema 49.02.05 diving injuries 49.02.06 lightning (electrical) injury 49.02.07 high altitude illness
49.03	Identify environmental factors that may cause illness, exacerbate preexisting illness and complicate treatment or transport decisions.
49.04	Describe several methods of temperature monitoring.
49.05	Identify the components of the body's thermoregulatory mechanism.
49.06	Describe the general process of thermal regulation, including substances used and wastes generated.
49.07	Describe the body's compensatory process for overheating.
49.08	Discuss and list the common forms of heat and cold disorders.
49.09	Discuss the pathophysiology of temperature related illness.
49.10	Relate symptomatic findings to the commonly used terms: heat cramps, heat exhaustion, and heatstroke.
49.11	Describe the contribution of dehydration to the development of heat disorders.
49.12	Describe the differences between classical and exertional heatstroke.
49.13	Define fever and discuss its pathophysiologic mechanism.
49.14	Discuss the role of fluid therapy in the treatment of temperature related emergencies.
49.15	Integrate the pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the patient who has dehydration, heat exhaustion, or heatstroke.
49.16	Identify differences between mild, severe, chronic and acute hypothermia.
49.17	Integrate pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the patient who has either mild or severe hypothermia.
49.18	Define frostbite and superficial frostbite (frostnip).
49.19	Integrate pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the patient with superficial or deep frostbite.
49.20	Define submersion.

49.21	List signs and symptoms of submersion.
49.22	Describe the lack of significance of fresh versus saltwater immersion, as it relates to submersion.
49.23	Discuss the incidence of "wet" versus "dry" drownings and the differences in their management.
49.24	Integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for the submersion patient.
49.25	Define self-contained underwater breathing apparatus (SCUBA).
49.26	Discuss the pathophysiology of diving emergencies including: 49.26.01 decompression illness/sickness 49.26.02 Altitude Illnesses 49.26.03 Pulmonary Over Pressurization Syndrome (POPS) 49.26.04 Arterial Gas Embolism
49.27	Relate the gas laws to the pathology of injury in a submersion emergency.
49.28	List signs and symptoms of diving emergencies.
49.29	Describe the function of the Divers Alert Network (DAN) and how its members may aid in the management of diving related illnesses.
49.30	Differentiate among the various treatments and interventions for the management of diving accidents.
49.31	Describe the specific function and benefit of hyperbaric oxygen therapy for the management of diving accidents.
49.32	Integrate pathophysiological principles and assessment findings to formulate a field impression and implement a management plan for the patient who has had a diving accident.
49.33	Develop a patient management plan based on the field impression of the patient affected by an environmental emergency.
49.34	Discuss the pathophysiology of bites and envenomation including: 49.34.01 Hymenoptera 49.34.02 Snake bites 49.34.03 Spider Bites 49.34.04 Scorpion stings 49.34.05 Tick Bites
49.35	Discuss and demonstrate the assessment and management of: 49.35.01 Hymenoptera 49.35.02 Snake bites 49.35.03 Spider Bites 49.35.04 Scorpion stings 49.35.05 Tick Bites
49.36	Relate the assessment of bites and envenomation to the immune response and shock.

Course Number: EMS0212 **Occupational Completion Point: A** **Paramedic III – 426 hours – SOC Code 29-2041**	
50.0	**Multi-Systems Trauma:** Demonstrate a complex depth, comprehensive breadth of multi-system trauma and blast injuries. – The student will be able to:
	50.01 Demonstrate the priority of care in the multisystem trauma patient.
	50.02 Explain which ALS interventions should occur prior to a transport decision and during transport.
51.0	**Obstetrics:** Demonstrate a complex depth, comprehensive breadth of the management of the obstetric patient within the scope of practice of the paramedic. – The student will be able to:
	51.01 Review the anatomic structures and physiology of the reproductive system.
	51.02 Identify and describe the normal events of pregnancy.
	51.03 Describe and demonstrate how to assess an obstetrical patient.
	51.04 Identify and describe the stages of labor and the paramedic's role in each stage.
	51.05 Differentiate between normal and abnormal delivery.
	51.06 Identify and describe complications associated with pregnancy and delivery.
	51.07 State indications of an imminent delivery.
	51.08 Differentiate the management of a patient with pre-delivery emergencies from a normal delivery.
	51.09 State the steps to assist in the delivery of a neonate including preparation of the mother.
	51.10 Describe and demonstrate how to care for the neonate.
	51.11 Describe how and when to cut the umbilical cord.
	51.12 Discuss the steps in the delivery of the placenta.
	51.13 Demonstrate how to prepare the obstetric patient for delivery.
	51.14 Demonstrate how to assist in the normal cephalic delivery of the fetus.
	51.15 Demonstrate how to deliver the placenta.
	51.16 Describe and demonstrate the management of the mother post-delivery.

	51.17 Describe and demonstrate the procedures for handling abnormal deliveries.
	51.18 Describe and demonstrate the procedures for handling complications of pregnancy including excessive vaginal bleeding, abdominal pain and hypertensive crisis.
	51.19 Describe and demonstrate the procedures for handling maternal complications of labor.
	51.20 Describe special considerations when meconium is present in amniotic fluid or during delivery.
	51.21 Describe special considerations of a premature baby.
52.0	**Neonatal Care:** Demonstrate a complex depth, comprehensive breadth of the management of the neonatal patient within the scope of practice of the paramedic. – The student will be able to:
	52.01 Define the term neonate.
	52.02 Identify antepartum factors that can affect childbirth.
	52.03 Identify intrapartum factors that can term the neonate “high risk”.
	52.04 Identify the factors that lead to premature birth and low birth weight neonates.
	52.05 Discuss pulmonary perfusion and asphyxia.
	52.06 Calculate the APGAR score given various neonate situations.
	52.07 Demonstrate appropriate assessment technique for examining a neonate.
	52.08 Determine when ventilatory assistance is appropriate for a neonate.
	52.09 Prepare appropriate ventilation equipment, adjuncts and technique for a neonate.
	52.10 Determine when chest compressions are appropriate for a neonate.
	52.11 Discuss and demonstrate appropriate chest compression techniques for a neonate.
	52.12 Determine when endotracheal intubation is appropriate for a neonate.
	52.13 Discuss and demonstrate appropriate endotracheal intubation techniques for a neonate.
	52.14 Identify complications related to endotracheal intubation for a neonate.
	52.15 Determine when vascular access is indicated for a neonate.
	52.16 Discuss the routes of medication administration for a neonate.
	52.17 Determine when blow-by oxygen delivery is appropriate for a neonate.

52.18	Demonstrate blow-by oxygen delivery for a neonate.
52.19	Determine when an orogastric tube should be inserted during positive-pressure ventilation.
52.20	Demonstrate insertion of an orogastric tube in a neonate.
52.21	Discuss the signs of hypovolemia in a neonate.
52.22	Demonstrate preparation of a neonate resuscitation area.
52.23	Discuss and demonstrate the initial steps in resuscitation of a neonate.
52.24	Demonstrate appropriate assisted ventilations for a neonate.
52.25	Demonstrate appropriate endotracheal intubation technique for a neonate.
52.26	Demonstrate appropriate chest compression and ventilation technique for a neonate.
52.27	Discuss the effects maternal narcotic usage has on the neonate.
52.28	Discuss appropriate transport guidelines for a neonate.
52.29	Determine appropriate receiving facilities for low and high risk neonates.
52.30	Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for meconium aspiration.
52.31	Discuss and demonstrate the assessment and management of meconium aspiration.
52.32	Discuss the pathophysiology of apnea in the neonate.
52.33	Discuss and demonstrate the assessment and management for apnea in the neonate.
52.34	Describe the epidemiology, including the incidence, morbidity/ mortality and risk factors for bradycardia in the neonate.
52.35	Discuss and demonstrate the assessment and management for bradycardia in the neonate.
52.36	Discuss the pathophysiology of premature infants.
52.37	Discuss and demonstrate the assessment and management for premature infants.
52.38	Discuss the pathophysiology of respiratory distress/ cyanosis in the neonate.
52.39	Discuss and demonstrate the assessment and management for respiratory distress/cyanosis in the neonate.
52.40	Discuss the pathophysiology of seizures in the neonate.

	52.41 Discuss and demonstrate the assessment and management for seizures in the neonate.
	52.42 Discuss the pathophysiology of fever in the neonate.
	52.43 Discuss and demonstrate the assessment and management for fever in the neonate.
	52.44 Discuss the pathophysiology of hypothermia in the neonate.
	52.45 Discuss and demonstrate the assessment and management for hypothermia in the neonate.
	52.46 Discuss the pathophysiology of hypoglycemia in the neonate.
	52.47 Discuss and demonstrate the assessment and management plan for hypoglycemia in the neonate.
	52.48 Discuss the pathophysiology of vomiting in the neonate.
	52.49 Discuss and demonstrate the assessment and management for vomiting in the neonate.
	52.50 Discuss the pathophysiology of common birth injuries in the neonate.
	52.51 Discuss and demonstrate the assessment and management for common birth injuries in the neonate.
	52.52 Discuss the pathophysiology of cardiac arrest in the neonate.
	52.53 Discuss and demonstrate the assessment and management/treatment plan for cardiac arrest in the neonate.
	52.54 Discuss the pathophysiology of post arrest management of the neonate.
	52.55 Discuss and demonstrate the management to stabilize the post arrest neonate.
	52.56 Demonstrate vascular access cannulation techniques for a newborn except umbilical vein/artery access.
53.0	**Pediatrics:** Demonstrate a complex depth, comprehensive breadth of the management of the pediatric patient within the scope of practice of the paramedic. – The student will be able to:
	53.01 Review key growth and developmental characteristics of infants and children and their implications.
	53.02 Identify key anatomical and physiological characteristics of infants and children and their implications.
	53.03 Describe and demonstrate techniques for successful assessment and treatment of infants and children.
	53.04 Outline differences in adult and childhood anatomy and physiology.
	53.05 Identify "normal" age group related vital signs.
	53.06 Determine appropriate airway adjuncts for infants and children.

53.07	Discuss complications of improper utilization of airway adjuncts with infants and children.
53.08	Discuss and demonstrate appropriate ventilation devices for infants and children.
53.09	Discuss complications of improper utilization of ventilation devices with infants and children.
53.10	Identify complications of improper endotracheal intubation procedure in infants and children.
53.11	List the indications and methods for gastric decompression for infants and children.
53.12	Differentiate between upper airway obstruction and lower airway disease.
53.13	Describe the general approach to the treatment of children with respiratory distress, failure, or arrest from upper airway obstruction or lower airway disease.
53.14	Discuss the common causes of hypoperfusion in infants and children.
53.15	Identify the major causes of abnormal cardiac rhythms in infants and pediatric.
53.16	Discuss the primary etiologies of cardiopulmonary arrest in infants and children.
53.17	Discuss the appropriate equipment for vascular access in infants and children.
53.18	Identify complications of vascular access for infants and children.
53.19	Describe the primary etiologies of altered level of consciousness in infants and children.
53.20	Identify common lethal mechanisms of injury in infants and children.
53.21	Identify infant and child trauma patients who require spinal immobilization.
53.22	Discuss and demonstrate fluid management and shock treatment for infant and child trauma patient.
53.23	Determine when pain management and sedation are appropriate for infants and children.
53.24	Define child abuse and child neglect.
53.25	Review mandatory reporting requirements for child abuse/neglect.
53.26	Define children with special health care needs.
53.27	Review basic cardiac life support (CPR) guidelines for infants and children.
53.28	Integrate advanced life support skills with basic cardiac life support for infants and children.
53.29	Discuss the indications, dosage, route of administration and special considerations for medication administration in infants and children.

53.30	Discuss the pathophysiology of respiratory distress/failure in infants and children.
53.31	Discuss and demonstrate the assessment and management for respiratory distress/failure in infants and children.
53.32	Discuss the pathophysiology of hypoperfusion in infants and children.
53.33	Discuss and demonstrate the assessment and management for hypoperfusion in infants and children.
53.34	Discuss the pathophysiology of cardiac dysrhythmias in infants and children.
53.35	Discuss and demonstrate the assessment and management for cardiac dysrhythmias in infants and children.
53.36	Discuss the pathophysiology of neurological emergencies in infants and children.
53.37	Discuss and demonstrate the assessment and management for neurological emergencies in infants and children.
53.38	Discuss the pathophysiology of trauma in infants and children.
53.39	Discuss and demonstrate the assessment and management for trauma in infants and children.
53.40	Discuss the pathophysiology of abuse and neglect in infants and children.
53.41	Discuss and demonstrate the assessment and management for abuse and neglect in infants and children, including documentation and reporting.
53.42	Discuss the pathophysiology of children with special health care needs including technology assisted children.
53.43	Discuss and demonstrate the assessment and management for children with special health care needs including technology assisted children.
53.44	Describe Sudden Unexplained Infant Death Syndrome (SUIDS), current theories, assessment and management, and the immediate needs of the family.
53.45	Discuss the parent/caregiver responses to the death of an infant or child.
53.46	Discuss the pathophysiology of SUIDS in infants.
53.47	Discuss the assessment findings associated with SUIDS infants.
53.48	Discuss the management/treatment plan for SUIDS in infants.
53.49	Discuss and demonstrate the use of a length-based resuscitation device for determining equipment sizes, drug doses and other pertinent information for a pediatric patient.
53.50	Demonstrate appropriate treatment/management of intubation complications for infants and children.
53.51	Demonstrate appropriate needle cricothyrootomy in infants and children.
53.52	Demonstrate proper placement of a gastric tube in infants and children.

53.53	Demonstrate an appropriate technique for insertion of peripheral intravenous catheters for infants and children.
53.54	Demonstrate an appropriate technique for administration of intramuscular, inhalation, subcutaneous, rectal, endotracheal and oral medication for infants and children.
53.55	Demonstrate an appropriate technique for insertion of an intraosseous line for infants and children.
53.56	Demonstrate proper technique for direct larnyngoscopy and foreign body retrieval in infants and children with a completely obstructed airway.
53.57	Demonstrate appropriate spinal motion restriction techniques for infant and child trauma patients.
53.58	Demonstrate treatment of infants and children with the following injuries: 53.58.01 head injuries. 53.58.02 Chest injuries 53.58.03 Abdominal injuries 53.58.04 Extremity injuries 53.58.05 Burns
53.59	Demonstrate appropriate parent/caregiver interviewing techniques for infant and child death situations.
53.60	Demonstrate proper infant and child CPR integrating ALS as appropriate.
53.61	Demonstrate proper techniques for performing infant and child defibrillation and synchronized cardioversion.
54.0	**Geriatrics:** Demonstrate a complex depth, comprehensive breadth of the management of the geriatric patient within the scope of practice of the paramedic. – The student will be able to:
54.01	Discuss common emotional and psychological reactions to aging to include causes and manifestations.
54.02	Discuss the problems with mobility in the elderly and develop strategies to prevent falls.
54.03	Discuss factors that may complicate the assessment of the elderly patient.
54.04	Describe principles that should be employed when assessing and communicating with the elderly.
54.05	Discuss common complaints of elderly patients.
54.06	Discuss the impact of polypharmacy and medication non-compliance on patient assessment and management.
54.07	Discuss medication issues of the elderly including polypharmacy, dosing errors and increased drug sensitivity and toxicology.
54.08	Discuss and demonstrate the assessment and management of the elderly patient with pulmonary complaints, including: 54.08.01 pneumonia 54.08.02 chronic obstructive pulmonary diseases 54.08.03 pulmonary embolism.
54.09	Identify the need for intervention and transport of the elderly patient with pulmonary complaints.

	54.10 Discuss and demonstrate the assessment and management of the elderly patient with complaints related to the cardiovascular system, including: 54.10.01 myocardial infarction 54.10.02 heart failure 54.10.03 dysrhythmias 54.10.04 aneurism 54.10.05 hypertension.
	54.11 Discuss and demonstrate the assessment and management of the elderly patient with complaints related to the nervous system, including: 54.11.01 cerebral vascular disease 54.11.02 delirium 54.11.03 dementia 54.11.04 Alzheimer's disease 54.11.05 Parkinson's disease.
	54.12 Describe the epidemiology for endocrine diseases in the elderly, including incidence, morbidity/mortality, risk factors, and prevention strategies for patients with diabetes and thyroid diseases.
	54.13 Discuss and demonstrate the assessment and management of the elderly patient with complaints related to the endocrine system, including diabetes and thyroid diseases.
	54.14 Discuss and demonstrate the assessment and management of the elderly patient with the following: 54.14.01 gastrointestinal problems. 54.14.02 toxicological problems 54.14.03 orthopedic injuries, burns and head injuries 54.14.04 drug and alcohol abuse 54.14.05 environmental considerations 54.14.06 depression or suicide risk factors
	54.15 Demonstrate the ability to adjust assessment to a geriatric patient.
	54.16 Discuss the epidemiology of herpes zoster and inflammatory arthritis in the elderly.
55.0	**Patients with Special Challenges:** Demonstrate a complex depth, comprehensive breadth of management of the patient with special challenges within the scope of practice of the paramedic. – The student will be able to:
	55.01 Discuss the incidence of abuse and assault.
	55.02 Describe the categories of abuse.
	55.03 Discuss examples of each of the following: 55.03.01 Domestic partner abuse 55.03.02 elder abuse 55.03.03 child abuse 55.03.04 sexual assault

55.04	Describe the characteristics associated with the profile of the typical abuser of: 55.04.01 domestic abuser 55.04.02 elder abuser 55.04.03 child abuser
55.05	Describe the characteristics associated with the profile of the typical assailant of sexual assault.
55.06	Identify the profile of the "at-risk" domestic partner, "at-risk" elder and "at-risk" child.
55.07	Discuss the legal aspects associated with abuse situations including mandatory reporting.
55.08	Discuss the documentation associated with abused and assaulted patient.
55.09	Demonstrate the ability to assess and manage a domestic partner, elder or child abused patient.
55.10	Demonstrate the ability to assess and manage a sexually assaulted patient.
55.11	Recognize the patient with a hearing impairment.
55.12	Anticipate accommodations that may be needed in order to properly manage the patient with a hearing impairment.
55.13	Recognize the patient with a visual impairment.
55.14	Anticipate accommodations that may be needed in order to properly manage the patient with a visual impairment.
55.15	Describe the various etiologies and types of speech impairments.
55.16	Recognize the patient with a speech impairment.
55.17	Describe paraplegia/quadriplegia.
55.18	Describe the various etiologies of mental illness.
55.19	Recognize the presenting signs of the following: 55.19.01 mental illnesses 55.19.02 Developmental disability 55.19.03 Down’s syndrome
55.20	Describe the various etiologies of emotional impairment.
55.21	Recognize the patient with an emotional impairment.

55.22	Describe the following diseases/illnesses and identify each of their possible presenting signs: 55.22.01 Arthritis, 55.22.02 Cancer, 55.22.03 Cerebral palsy, 55.22.04 Cystic fibrosis 55.22.05 Multiple sclerosis, 55.22.06 Muscular dystrophy, 55.22.07 Myasthenia gravis, 55.22.08 Poliomyelitis, 55.22.09 Spina bifida, 55.22.10 patients with a previous head injury
55.23	Identify a patient that is terminally ill.
55.24	Recognize sign(s) of financial impairments.
55.25	Identify the importance of home health care medicine as related to the ALS level of care.
55.26	Differentiate between the role of EMS provider and the role of the home care provider.
55.27	Discuss the aspects of home care that result in enhanced quality of care for a given patient.
55.28	Discuss the aspects of home care that have a potential to become a detriment to the quality of care for a given patient.
55.29	List complications commonly seen in the home care patients, which result in their hospitalization.
55.30	Review hospice care, comfort care and DNR/DNAR as they relate to local practice, law and policy.
55.31	List the stages of the grief process and relate them to an individual in hospice care.
55.32	Given a series of home care scenarios, determine which patients should receive follow-up home care and which should be transported to an emergency care facility.
55.33	Describe airway maintenance devices typically found in the home care environment.
55.34	Describe devices that provide or enhance alveolar ventilation in the home care setting.
55.35	Describe and access indwelling catheters, implanted central IV ports and central line monitoring.
55.36	Describe complications of assessing each of the airway, vascular access, and GI/GU devices described above.
55.37	Describe the indications and contraindications for urinary catheter insertion in an out-of-hospital setting.
55.38	Identify failure of GI/GU devices found in the home care setting.
55.39	Identify failure of ventilatory devices found in the home care setting.

	55.40 Identify failure of vascular access devices found in the home care setting.
	55.41 Identify and describe the failure of wound drains.
	55.42 Discuss the rights of the terminally ill.
	55.43 Observe for an infected or otherwise complicated venous access point.
	55.44 Demonstrate proper tracheotomy care.
	55.45 Demonstrate the insertion of a new inner cannula and/or the use of an endotracheal tube to temporarily maintain an airway in a tracheostomy patient.
	55.46 Demonstrate how to replace an ostomy tube.
56.0	**Principles of Safely Operating a Ground Ambulance:** Demonstrate a simple depth, foundational breadth of risks and responsibilities of transport. – The student will be able to:
	56.01 Review the EMT standards and benchmarks for the Principles of Safely Operating a Ground Ambulance.
57.0	**Incident Management:** Demonstrate a complex depth, comprehensive breadth of establishing and working within the incident management system. – The student will be able to:
	57.01 Review the EMT standards and benchmarks for Incident Management and apply a complex depth and comprehensive breadth of establishing and working within the incident management system.
58.0	**Multiple Casualty Incidents:** Demonstrate a simple depth, foundational breadth of responding to an emergency during a multiple casualty incident. – The student will be able to:
	58.01 Review the EMT standards and benchmarks for multiple casualty incidents.
59.0	**Air Medical:** Demonstrate a complex depth, comprehensive breadth of air medical transport risks, needs and advantages. – The student will be able to:
	59.01 Describe the advantages and disadvantages of air medical transport.
	59.02 Identify appropriate reasons for the use of air medical for emergency patient transport.
	59.03 Describe the risks involved with the use of air medical transport.
	59.04 Demonstrate the actions needed to ensure effective and safe ground operations involving air medical response.
	59.05 Demonstrate appropriate communication of information needed for safe and effective interaction between the air medical crew and ground personnel.
60.0	**Vehicle Extrication:** Demonstrate a simple depth, simple breadth for safe vehicle extrication and use of simple hand tools. – The student will be able to:
	60.01 Review the EMT standards and benchmarks for vehicle extrication.
61.0	**Hazardous Materials Awareness:** Demonstrate a simple depth, simple breadth of risks and responsibilities of operating in a cold zone at a hazardous material or other special incident. – The student will be able to:

	61.01 Review the EMT standards and benchmarks for hazardous materials awareness.
62.0	**Mass Casualty Incidents due to Terrorism and Disasters:** Demonstrate a simple depth, simple breadth of risks and responsibilities of operating on the scene of a natural or man- made disaster. – The student will be able to:
	62.01 Review the EMT standards and benchmarks for mass casualty incidents.

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.

Field internship shall include a competency-based program to assure appropriate pre-hospital assessment and management of medical and trauma patients, as well as associated manual skills. The field internship activity shall include supervised experience in the field setting with a certified ALS transport EMS agency or ALS fire department. Refer to 64J-1/20 for additional requirements of the field internship inside of the paramedic program.

Special Notes

This program is ONLY authorized to be offered by the following districts: Lake, Manatee, St. Johns, and Sarasota.

It is strongly recommended this program be accredited by CAAHEP (Commission on Accreditation of Allied Health Education Programs). Beginning January 1, 2013, National Registry for Emergency Medical Technicians (NREMT) will require students applying for Paramedic National certification to be from a CAAHEP/CoAEMSP accredited program.

The standard length of this program is 1100 clock hours or. This includes the Health Science Core (90 clock hours). The Student Performance Standards for Paramedic were adapted and condensed from the most current U.S. Department of Transportation, National EMS Educational Standards for the Paramedic. Administrators and instructors should refer to these materials for additional detail.

This program W170206 has a statewide articulation agreement approved by the Florida State Board of Education:

Emergency Medical Services AS (1351090402) – 42 credit hours

Students who have completed a Paramedic program at one of the grandfathered technical centers can enroll in a community college Emergency Medical Services-Associates Degree or Career Certificate Program within five years of their completion date. Students seeking credit after five years must show proof of current EMT or Paramedic licensure. Students entering the community college will receive the same credit as native Career Certificate Program completers in these programs. Such students, however, must first meet the college's entry, residency, and academic requirements.

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)

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.

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.

Basic Skills

In a Career Certificate Program offered for 450 hours or more, in accordance with Rule 6A-10.040, F.A.C., the minimum basic skills grade levels required for postsecondary adult career and technical students to complete this program are: Mathematics 10, Language 10, and Reading 10. These grade level numbers correspond to a grade equivalent score obtained on a state designated basic skills examination.

Adult students with disabilities, as defined in Section 1004.02(7), Florida Statutes, may be exempted from meeting the Basic Skills requirements (Rule 6A-10.040). Students served in exceptional student education (except gifted) as defined in s. 1003.01(3)(a), F.S., may also be exempted from meeting the Basic Skills requirement. Each school district and Florida College must adopt a policy addressing procedures for exempting eligible students with disabilities from the Basic Skills requirement as permitted in Section 1004.91(3), F.S.

Students who possess a college degree at the Associate of Applied Science level or higher; who have completed or are exempt from the college entry-level examination; or who have passed a state, national, or industry licensure exam are exempt from meeting the Basic Skills requirement (Rule 6A-10.040, F.A.C.) Exemptions from state, national or industry licensure are limited to the certifications listed on the Basic Skills and Licensure Exemption List which may be accessed from the CTE Program Resources page.

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: Emergency Medical Technician
Program Type: Career Preparatory
Career Cluster: Health Science

THIS PROGRAM HAS BEEN DAGGERED FOR DELETION. THE LAST YEAR TO ENROLL NEW STUDENTS IS 19-20. BEGINNING IN 20-21 ALL NEW STUDENTS WILL BE ENROLLED IN THE EMT ATD PROGRAM 0351090408/W170212. LAST YEAR TO REPORT ENROLLMENT IS 20-21.

This program is ONLY authorized to be offered at the following districts: Lake, Manatee, Palm Beach, St. Johns, Sarasota and Taylor

Career Certificate Program	
Program Number	W170213 (This program is for use by Grandfathered Districts ONLY)
CIP Number	0351090414
Grade Level	30, 31
Standard Length	300 hours
Teacher Certification	Refer to the **Program Structure** section.
CTSO	HOSA: Future Health Professionals
SOC Codes (all applicable)	29-2041 Emergency Medical Technicians and Paramedics
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 the Health Science 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 Health Science career cluster.

This is an instructional program that prepares students for employment as emergency medical technicians SOC Code 29-2041(Emergency Medical Technicians and Paramedics) to function at the basic pre-hospital emergency medical technician level and treat various medical/trauma conditions using appropriate equipment and materials.

The content includes but is not limited to : patient assessment, airway management, cardiac arrest, external and internal bleeding and shock, traumatic injuries, fractures, dislocations, sprains, poisoning, heart attack, stroke, diabetes, acute abdomen, communicable diseases, patients with abnormal behavior, alcohol and drug abuse, the unconscious state, emergency childbirth, burns, environmental hazards, communications, reporting, extrication and transportation of patient. The student must be proficient in patient assessment and evaluation, the use of suctioning devices, oral and nasal airways, resuscitation devices, oxygen equipment, sphygmomanometer and stethoscope, splints of all types, pneumatic anti-shock garments, extrication tools, dressings and bandages, stretchers and patient carrying devices.

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 1 occupational completion point.

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	EMS0110	Emergency Medical Technician (EMT)	PARAMEDIC @7 7G # EMT 7G # REG NURSE 7 G #PRAC NURSE @7 %7%G *(Must be a Registered Nurse)	300 hours	29-2041

 # These certifications can only be used for adjunct faculty. Please refer to 64J-1.201 F.A.C. for the EMS instructor qualifications.

Regulated Programs

The program prepares students for certification as EMT's in accordance with Chapter 64J of the Florida Administrative Code. The program must be approved by the Department of Health, Office of Emergency Medical Services, and the curriculum must adhere to the US Department of Transportation (DOT), National EMS Education Standards for EMT. This is the initial level for a career in emergency medical services and the primary prerequisite for paramedic training and certification.

This program meets the Department of Health trauma score card methodologies and SUIDS training education requirements. Upon completion of this program, the instructor will provide a certificate to the student verifying that these requirements have been met. This program also meets the Department of Health's education requirements for HIV/AIDS, Domestic Violence and Prevention of Medical Errors. Although not a requirement for initial licensure, it is a requirement for renewal, therefore the instructor may provide a certificate for renewal purposes to the student verifying these requirements have been met.

Please refer to chapter 401 F.S. for more information on disqualification for the EMT license through the Office of Emergency Medical Services, Department of Health.

An EMT program must be taught by an instructor meeting the qualifications as set forth in 64J-1.0201 FAC.

An American Heart Association or Red Cross certification or equivalent in "professional" BLS is required of all candidates for entrance into an EMT program.

The Student Performance Standards for Emergency Medical Technician were adapted from the US Department of Transportation (DOT) National EMS Educational Standards for EMT.

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 Demonstration of a simple depth and foundational breadth of EMS systems.
02.0 Demonstration of a simple depth, simple breadth of research and evidence-based decision making.
03.0 Demonstration of a fundamental depth, foundational breadth of workforce safety and wellness.
04.0 Demonstration of a fundamental depth, foundational breadth of the principles of medical documentation and report writing.
05.0 Demonstration of a simple depth, simple breadth of the EMS communication system, communication with other health care professionals, and team communication.
06.0 Demonstration of a simple depth and simple breadth of the principles of therapeutic communication.
07.0 Demonstration of a fundamental depth, foundational breadth of medical legality and ethics.
08.0 Demonstrate the application of fundamental knowledge of the anatomy and function of all human systems to the practice of EMS.
09.0 Demonstrate the application of fundamental knowledge in the use of medical terminology and medical terms.
10.0 Demonstrate the application of a fundamental knowledge of the causes, pathophysiology and management of shock and the components of resuscitation.
11.0 Demonstrate the application of fundamental knowledge of life span development to patient assessment and management.
12.0 Demonstrate the use of simple knowledge of the principles of illness and injury prevention in emergency care.
13.0 Demonstrate a simple depth, simple breadth for medication safety and kinds of medications used during an emergency.
14.0 Demonstrate a fundamental depth and foundational breadth of medication administration within the scope of practice of the EMT.
15.0 Demonstrate a fundamental depth and simple breadth of emergency medications within the scope of practice of the EMT.
16.0 Demonstrate a foundational depth, foundational breadth of airway management within the scope of practice of the EMT.
17.0 Demonstrate a fundamental depth, foundational breadth of respiration.
18.0 Demonstrate a fundamental depth, foundational breadth of assessment and management utilizing artificial ventilation.
19.0 Demonstrate a fundamental depth, foundational breadth of scene management and multiple patient situations.
20.0 Demonstrate a fundamental depth, simple breadth of the primary assessment for all patient situations.
21.0 Demonstrate a fundamental depth, foundational breadth of the components of history taking.
22.0 Demonstrate a fundamental depth, foundational breadth of techniques used for a secondary assessment.
23.0 Demonstrate a simple depth, simple breath of monitoring devices within the scope of practice of the EMT.
24.0 Demonstrate a fundamental depth, foundational breadth of how and when to perform a reassessment for all patient situations.
25.0 Demonstrate a simple depth, foundation breadth of pathophysiology, assessment and management of medical complaints.
26.0 Demonstrate a fundamental depth, foundational breadth of the assessment and management of neurologic disorders/emergencies for all age groups.
27.0 Demonstrate a fundamental depth, foundational breadth of the assessment and management of abdominal and gastrointestinal disorders/emergencies for all age groups.
28.0 Demonstrate a fundamental depth, foundational breadth of the assessment and management of immunology disorders/emergencies for all age groups.
29.0 Demonstrate a simple depth, simple breadth of the assessment and management of a patient who may have an infectious disease for all age groups.

30.0 Demonstrate a fundamental depth, foundational breadth of the assessment and management of endocrine disorders/emergencies for all age groups.
31.0 Demonstrate a fundamental depth, foundational breadth regarding the assessment and management of psychiatric emergencies for all age groups.
32.0 Demonstrate a fundamental depth, foundational breadth of the assessment and management of cardiovascular emergencies for all age groups.
33.0 Demonstrate a fundamental depth, foundational breadth of the assessment and management of toxicological (poisoning and overdose) emergencies for all age groups.
34.0 Demonstrate a fundamental depth, foundational breadth of the assessment and management of respiratory disorders/emergencies for all age groups.
35.0 Demonstrate a simple depth, simple breadth of the assessment, and management of hematology disorders for all age groups.
36.0 Demonstrate a simple depth, simple breath of the assessment and management of genitourinary/ renal emergency for all age groups.
37.0 Demonstrate a fundamental depth, foundational breadth of the assessment and management of gynecologic emergencies for all age groups.
38.0 Demonstrate a fundamental depth, foundational breadth of the assessment and management of non-traumatic fractures for all age groups.
39.0 Demonstrate a simple depth, simple breadth in recognition and management of nose bleed for all age groups.
40.0 Demonstrate the application of fundamental knowledge of the causes, pathophysiology, and management of shock and respiratory failure.
41.0 Demonstrate a fundamental depth, foundational breadth of pathophysiology, assessment and management of the trauma patient for all age groups.
42.0 Demonstrate a fundamental depth, foundational breadth of pathophysiology, assessment, and management of bleeding for all age groups.
43.0 Demonstrate a fundamental depth, simple breadth of pathophysiology, assessment and management of chest trauma for all age groups.
44.0 Demonstrate a fundamental depth, simple breadth of pathophysiology, assessment and management of abdominal and genitourinary trauma for all age groups.
45.0 Demonstrate a fundamental depth, foundational breadth of pathophysiology, assessment, and management of orthopedic trauma for all age groups.
46.0 Demonstrate a fundamental depth, foundational breadth of pathophysiology, assessment, and management of soft tissue trauma for all age groups.
47.0 Demonstrate a fundamental depth, foundational breadth of pathophysiology, assessment, and management of head, facial, neck and spine trauma for all age groups.
48.0 Demonstrate a fundamental depth, foundational breadth of pathophysiology, assessment, and management of nervous system trauma for all age groups.
49.0 Demonstrate a fundamental depth, foundational breadth of pathophysiology, assessment and management of trauma patients with special considerations for all age groups.
50.0 Demonstrate a fundamental depth, foundational breadth of pathophysiology, assessment and management of environmental emergencies for all age groups.
51.0 Demonstrate a fundamental depth, foundational breadth of the pathophysiology, assessment, and management of multi-system trauma and blast injuries.
52.0 Demonstrate a fundamental depth, foundational breadth of management of the obstetric patient within the scope of practice of the EMT.

53.0 Demonstrate a fundamental depth, foundational breadth of management of the newborn and neonatal patient within the scope of practice of the EMT.
54.0 Demonstrate a fundamental depth, fundamental breath of management of the pediatric patient within the scope of practice of the EMT.
55.0 Demonstrate a fundamental depth, foundational breadth of management of the geriatric patient within the scope of practice of the EMT.
56.0 Demonstrate a simple depth, simple breadth of management of the patient with special challenges.
57.0 Demonstrate a simple depth, foundational breadth of risks and responsibilities of transport.
58.0 Demonstrate a fundamental depth, fundamental breadth of establishing and working within the incident management system.
59.0 Demonstrate a simple depth, foundational breadth of responding to an emergency during a multiple casualty incident.
60.0 Demonstrate a simple depth, simple breadth of safe air medical operations and criteria for utilizing air medical response.
61.0 Demonstrate a simple depth, simple breadth for safe vehicle extrication and use of simple hand tools.
62.0 Demonstrate a simple depth, simple breadth of risks and responsibilities of operating in a cold zone at a hazardous material or other special incident.
63.0 Demonstrate a simple depth, simple breadth of risks and responsibilities of operating on the scene of a natural or man-made disaster.

Florida Department of Education
Student Performance Standards

Program Title: **Emergency Medical Technician**
PSAV Number: **W170213**

Course Number: EMS0110 **Occupational Completion Point: A** **Emergency Medical Technician – 300 Hours – SOC Code 29-2041**	
01.0	**EMS Systems:** Demonstration of a simple depth and foundational breadth of EMS systems. – The student will be able to:
01.01	Define Emergency Medical Services (EMS) systems.
01.02	Discuss the historical background of the development of the EMS system.
01.03	Identify the four levels of national EMS providers (EMR, EMT, AEMT and PM) as well as the three levels in the State of Florida.
01.04	Discuss the specific statutes and regulations regarding the EMS system in Florida.
01.05	Discuss vehicle and equipment readiness.
01.06	Characterize the EMS system's role in prevention and public education.
01.07	Discuss the roles and responsibilities of the EMT related to personal safety of the crew, patient and by standers.
01.08	Discuss the roles and responsibilities of the EMT to operate emergency vehicles, provide scene leadership and perform patient assessment and administer emergency care.
01.09	Discuss the maintenance of certification and licensure for the EMT in the State of Florida and NREMT.
01.10	Define quality improvement and discuss the EMT's role in the process.
01.11	Identify the basics of common methods of payment for healthcare services.
01.12	Analyze attributes and attitudes of an effective leader.
01.13	Demonstrate effective techniques for managing team conflict.
01.14	Describe factors that influence the current delivery system of healthcare.
01.15	Discuss the importance of continuing medical education and skills retention.
01.16	Assess personal attitudes and demeanor that may distract from professionalism.

	01.17 Serve as a role model and exhibit professional behaviors in the following areas: 01.17.01 integrity 01.17.02 empathy 01.17.03 self-motivation 01.17.04 appearance and personal hygiene 01.17.05 self-confidence 01.17.06 communications (including phone, email and social media etiquette) 01.17.07 time management 01.17.08 teamwork and diplomacy 01.17.09 respect 01.17.10 patient advocacy (inclusive of those with special needs, alternate life styles and cultural diversity) 01.17.11 careful delivery of service
02.0	**Research:** Demonstration of a simple depth, simple breadth of research and evidence-based decision making. – The student will be able to:
	02.01 Discuss EMS research and evidence based decision making: 02.01.01 Conduct scientific literature searches 02.01.02 Read, interpret and extract information from journal articles relevant to a project
	02.02 Explain the importance to assess and treat patients based on evidence based decision making.
	02.03 Interpret graphs, charts, and tables.
	02.04 Measure time, temperature, distance, capacity, and mass/weight.
	02.05 Convert and use traditional and metric units.
	02.06 Make estimations, approximations and judge the reasonableness of the result.
	02.07 Convert time from a 12 hour format to a 24 hour format.
	02.08 Demonstrate ability to evaluate and draw conclusions.
	02.09 Calculate ratios.
	02.10 Explain the rationale for the ems system gathering data.
03.0	**Workforce Safety and Wellness:** Demonstration of a fundamental depth, foundational breadth of workforce safety and wellness. – The student will be able to:
	03.01 Explain the need to determine scene safety.
	03.02 Discuss the importance of body substance isolation (BSI).
	03.03 Describe the steps the EMT should take for personal protection from airborne and blood borne pathogens as well as communicable disease.

03.04	List the personal protective equipment necessary to protect oneself in common emergency situations.
03.05	List possible emotional reactions that an individual (EMT and EMT family, Patient and Patient family) may experience when faced with trauma, illness, death and dying.
03.06	State the steps the EMT should take when approaching a family confronted with death and dying.
03.07	Recognize the warning signs of personal stress and discuss the strategies EMTs can apply to manage it.
03.08	Demonstrate good body mechanics while using a stretcher and other patient moving devices.
03.09	Discuss the guidelines and safety precautions that need to be followed when lifting a patient.
03.10	Describe the guidelines and safety precautions for carrying patients and/or equipment.
03.11	State the guidelines for reaching and their application.
03.12	State the guidelines for pushing and pulling.
03.13	Discuss patient positioning in common emergency situations.
03.14	Discuss situation that may require the use of medical restraints on the patient and explain guidelines and safety consideration for their use.
03.15	Define “infectious disease” and “communicable disease”.
03.16	Describe the routes of transmission for infectious disease.
03.17	Explain the mode of transmission and the steps to prevent/deal with an exposure of hepatitis, meningitis, tuberculosis and HIV.
03.18	Explain how immunity to infectious diseases is acquired.
03.19	Explain post exposure management of exposure to patient blood or body fluids, including completing a post exposure report.
03.20	Describe the components of physical fitness and mental wellbeing.
03.21	Identify personal health practices and environmental factors which affect function of each of the major body systems.
03.22	Develop an awareness of complementary and alternative health practices.
03.23	Explain the basic concepts of positive self-image, wellness and stress.
03.24	Develop a wellness and stress control plan that can be used in personal and professional life.
03.25	Explore the importance of adequate nutrition (i.e. U.S. Department of Agriculture’s MyPlate food guide.)
03.26	Identify personal health practices and environmental factors which affect function of each of the major body systems.

	03.27 Demonstrate the safe use of medical equipment.
	03.28 Explain the theory of root- cause analysis.
	03.29 Identify and describe methods in medical error reduction and prevention in the various healthcare settings.
	03.30 Identify and practice security procedures for medical supplies and equipment in the various healthcare settings.
	03.31 Describe fire, safety, disaster and evacuation procedures in the various healthcare settings.
	03.32 Discuss applicable accrediting and regulatory agency patient safety guidelines.
04.0	**Documentation:** Demonstration of a fundamental depth, foundational breadth of the principles of medical documentation and report writing. – The student will be able to:
	04.01 Recognize applications of technology in healthcare.
	04.02 Demonstrate basic computer skills.
	04.03 Interpret and utilize information from electronic health records.
	04.04 Identify methods of communication to access and distribute data such as fax, e-mail, and internet.
	04.05 Describe the use and importance of written communication and patient care documentation.
	04.06 Explain the legal implication of the patient care report.
	04.07 Identify the minimum dataset reference patient information and administrative information on the patient care report.
	04.08 Understand how to document refusal of care, including legal implications.
	04.09 Discuss the implications of the Health Insurance Portability and Accountability Act of 1996 on confidential documentation.
	04.10 Describe the special considerations concerning mass casualty incident documentation.
	04.11 Explain the relevance and importance of properly completed documentation.
	04.12 Demonstrate completion of a patient care report for a medical and trauma patient.
	04.13 Explain the rationale for patient care documentation.
05.0	**EMS System Communication:** Demonstration of a simple depth, simple breadth of the EMS communication system, communication with other health care professionals, and team communication. – The student will be able to:
	05.01 Understand the basic principles of the various types of communications equipment used in EMS.
	05.02 Describe the use of radio communication and correct radio procedures, including the proper methods of initiating and terminating the radio call/transmission.

	05.03 Explain the rationale for providing efficient and effective radio communications and patient reports.
	05.04 Identify the essential components of the verbal report and legal aspects that need to be considered.
	05.05 Perform an organized and concise radio transmission.
	05.06 Perform an organized, concise patient report that would be given to the staff at a receiving facility.
	05.07 Perform a brief, organized report that would be given to an ALS provider arriving at an incident scene at which the EMT was already providing care.
06.0	**Therapeutic Communication:** Demonstration of a simple depth and simple breadth of the principles of therapeutic communication. – The student will be able to:
	06.01 Describe principles of therapeutic and effective communication with patients in a manner that achieves a positive relationship.
	06.02 Develop basic speaking and active listening skills.
	06.03 Recognize the importance of patient/client educations regarding healthcare.
	06.04 Demonstrate the adjustment of communication strategies to effectively communicate with patients with: 06.04.01 differing age groups 06.04.02 differing developmental stages 06.04.03 special needs 06.04.04 Differing cultures, including language barriers.
	06.05 Demonstrate the communication techniques that should be used to interact with the patient, patient family, bystanders, and individuals from other agencies including verbal diffusion and interview techniques.
	06.06 Demonstrate the strategies for interviewing persons in special situations.
	06.07 Distinguish between and respond to verbal and non-verbal cues.
	06.08 Analyze elements of communication using a sender-receiver/close loop model.
	06.09 Exhibit positive non-verbal behaviors.
	06.10 Establish proper patient rapport.
07.0	**Medical/Legal and Ethics:** Demonstration of a fundamental depth, foundational breadth of medical legality and ethics. – The student will be able to:
	07.01 Differentiate between expressed, implied and involuntary consent.
	07.02 Discuss the methods of obtaining consent and procedures for minors.
	07.03 Discuss the issues of abandonment, negligence, false imprisonment and battery and their implications to the EMT.
	07.04 Discuss the implications for the EMT in patient refusal of care and/or transport.

	07.05 Explain the importance, necessity and legality of patient confidentiality.
	07.06 Discuss the importance of Do Not Resuscitate [DNR] (advance directives) and local or Florida provisions regarding EMS application.
	07.07 Discuss State of Florida and Federal special reporting situations including: 07.07.01 Abuse 07.07.02 sexual assault 07.07.03 gunshot and knife wounds 07.07.04 communicable disease
	07.08 Differentiate between civil tort and criminal actions.
	07.09 List the elements of negligence and defenses/protections from liability.
	07.10 Discuss the role of the EMT at crime scenes and preservation of evidence.
	07.11 Define ethics and morality and discuss their implication for the EMT.
	07.12 Differentiate between licensure and certification as they apply to EMS.
	07.13 Discuss Florida legislation such as the Baker Act, Marchman Act, and the Emergency Examination and Treatment of Incapacitated Persons Act.
	07.14 Differentiate between the scope of practice and the standard of care as applied to the EMT.
	07.15 Discuss the legal concept of immunity, including Good Samaritan statutes and governmental immunity.
	07.16 Describe the appropriate patient management and care techniques in a refusal of care situation.
	07.17 Analyze the relationship between the law, morals and ethics in EMS and the premise that should under lie the EMTs ethical decisions.
	07.18 Describe the criteria necessary to honor an advance directive.
	07.19 Explain the rationale for the needs, benefits and varying degrees of advance directives.
08.0	**Anatomy and Physiology**: Demonstrate the application of fundamental knowledge of the anatomy and function of all human systems to the practice of EMS. – The student will be able to:
	08.01 Label the following topographic terms: 08.01.01 Medial 08.01.02 lateral 08.01.03 proximal 08.01.04 distal 08.01.05 superior 08.01.06 inferior 08.01.07 anterior 08.01.08 posterior

	08.01.09 midline 08.01.10 right and left 08.01.11 mid-clavicular 08.01.12 bilateral 08.01.13 mid-axillary
08.02	Chart the life support chain, aerobic metabolism and anaerobic metabolism.
08.03	Define anatomy, physiology, pathophysiology and homeostasis.
08.04	Identify and describe the anatomical structures and functions of the following: 08.04.01 Skeletal system 08.04.02 Muscular system 08.04.03 Respiratory System 08.04.04 Circulatory/ Cardiovascular system 08.04.05 Nervous System 08.04.06 Integumentary system 08.04.07 Digestive system 08.04.08 Endocrine system including glands and hormones 08.04.09 Renal system 08.04.10 Reproductive system 08.04.11 Lymphatic System
08.05	Explain cellular anatomy and physiology.
08.06	Explain cellular respiration.
08.07	Discuss cell division.
08.08	Describe the different types of muscle tissues including skeletal, smooth and cardiac.
08.09	Describe the functions and divisions of the skeletal system including the classifications of bones.
08.10	Name and identify the location of the bones of the axial and appendicular skeleton.
08.11	Describe the classification and types of joints.
08.12	Describe the function of muscles.
08.13	Identify major muscles of the body.
08.14	Describe the general function of the respiratory system and its structures.
08.15	Discuss the mechanisms of breathing including: 08.15.01 Mechanical Ventilation 08.15.02 Pulmonary volumes

	08.15.03 Dead space 08.15.04 Lung compliance
08.16	Explain the diffusion of gases in external and internal respiration.
08.17	Describe oxygen and carbon dioxide transport in the blood.
08.18	Describe nervous and chemical mechanisms that regulate respirations.
08.19	Discuss respiration and acid-base balance.
08.20	Describe the composition and function of blood and plasma.
08.21	Identify and describe the anatomical structures and functions of the cardiovascular system.
08.22	Discuss the hemodynamics of blood pressure.
08.23	Discuss the role of nutrition, metabolism and body temperature on body function.
08.24	Describe the causes, advantages and disadvantages of a fever.
08.25	Discuss the hypothalamus functions as the thermostat in the body.
09.0	**Medical Terminology:** Demonstrate the application of fundamental knowledge in the use of medical terminology and medical terms. – The student will be able to:
09.01	Identify medical terminology word parts such as: 09.01.01 root words 09.01.02 prefixes 09.01.03 suffixes 09.01.04 combining forms
09.02	Correctly utilize medical terminology describing each of the following: 09.02.01 body structures 09.02.02 functions, 09.02.03 conditions and disorders 09.02.04 body regions 09.02.05 cavities 09.02.06 areas 09.02.07 landmarks
09.03	Correctly use medical abbreviations and symbols.
09.04	Read and understand basic medical documentation in medical records and medical reports.
09.05	Communicate with healthcare professionals utilizing basic medical terminology.
09.06	Explain the rationale for using accepted medical terminology correctly.

10.0	**Pathophysiology:** Demonstrate the application of a fundamental knowledge of the causes, pathophysiology and management of shock and the components of resuscitation. – The student will be able to:
	10.01 Discuss signs of irreversible death.
	10.02 Review the anatomy and physiology of the respiratory and cardiovascular systems.
	10.03 Discuss and identify the pathophysiology and medical care for respiratory failure as well as respiratory and cardiac arrest.
	10.04 Explain the system components of CPR, the four links in the AHA chain of survival and how each one relates to maximizing the survival of the patient.
	10.05 Show Provider (AHA guidelines) certification required prior to EMT program admission as per FS 401.27.
	10.06 Understand shock, including the pathophysiology, causes, and its signs and symptoms associated with the various types of shock.
	10.07 Discuss patient assessment and steps to the emergency care of the patient with signs and symptoms of shock.
	10.08 Based on age variations, discuss and distinguish the variations and causes between the management of patient experiencing shock.
11.0	**Life Span Development:** Demonstrate the application of fundamental knowledge of life span development to patient assessment and management. – The student will be able to:
	11.01 Describe the major physiologic and psychosocial characteristics of: 11.01.01 An infant's life 11.01.02 A toddler and preschooler's life 11.01.03 A school age child's life 11.01.04 An adolescent's life 11.01.05 An early adults life 11.01.06 A middle adult's life 11.01.07 A late adult's life
12.0	**Public Health:** Demonstrate the use of simple knowledge of the principles of illness and injury prevention in emergency care. –The student will be able to:
	12.01 Define public health and explain the goal of the public health field.
	12.02 Identify the EMS role within the public health field.
	12.03 Recognize the three categories of public health laws.
	12.04 Discuss basic concepts of epidemiology.
	12.05 Discuss ways of EMS involvement in injury prevention.
	12.06 Identify areas of need for prevention programs in the community.
13.0	**Principles of Pharmacology:** Demonstrate a simple depth, simple breadth for medication safety and kinds of medications used during an emergency. – The student will be able to:

13.01	Explain the “six rights” of medication administration and describe how each one related to EMS.
13.02	Discuss the forms in which the medications may be found and provide examples of each and discuss how the form of a medication dictates its route of administration.
13.03	Describe the difference between a generic medication name and trade name, and provide an example of each.
13.04	Discuss the components and elements of a drug profile including: 13.04.01 Actions 13.04.02 Contraindications 13.04.03 Side effects 13.04.04 Dose 13.04.05 Route
13.05	Describe the role of medical direction in medication administration and explain the difference between direct orders (online) and standing orders (off-line).
14.0	**Medication Administration:** Demonstrate a fundamental depth and foundational breadth of medication administration within the scope of practice of the EMT. – The student will be able to:
14.01	Discuss the difference between administration versus assistance of patient medications.
14.02	Explain the rationale for the administration of medications.
	14.02.01 Assist in the administration of medications by the following routes: 14.02.02 oral 14.02.03 sublingual 14.02.04 inhalation 14.02.05 auto- injector
15.0	**Emergency Medications:** Demonstrate a fundamental depth and simple breadth of emergency medications within the scope of practice of the EMT. – The student will be able to:
15.01	State the following for each medication that can be administered by an EMT as dictated by the State of Florida and local medical direction : 15.01.01 Generic and trade names 15.01.02 Actions 15.01.03 Indication 15.01.04 Contraindications 15.01.05 Complications 15.01.06 Routes of administration 15.01.07 Side effects 15.01.08 Interactions 15.01.09 Doses of medications
15.02	Discuss the forms in which the medications may be found.
15.03	Demonstrate the steps in properly inspecting each type of medication.

16.0	**Airway Management:** Demonstrate a foundational depth, foundational breadth of airway management within the scope of practice of the EMT. – The student will be able to:
	16.01 Review the structures and functions of the respiratory system.
	16.02 State what care should be provided for a patient with or without adequate breathing.
	16.03 Describe and demonstrate the steps in performing the head-tilt chin-lift and jaw thrust in all age groups.
	16.04 Relate mechanism of injury to opening the airway.
	16.05 Explain the differences between airway anatomies in all age groups.
	16.06 Describe the following for a patient with an automatic transport ventilator (ATV): 16.06.01 Indications 16.06.02 Contraindications 16.06.03 Advantages 16.06.04 Disadvantages 16.06.05 Complications 16.06.06 Technique for ventilating
	16.07 Describe the following regarding supplemental oxygen delivery devices: 16.07.01 Indications 16.07.02 Contraindications 16.07.03 Advantages 16.07.04 Disadvantages 16.07.05 Complications 16.07.06 Liter Flow Range 16.07.07 Concentration of Delivered Oxygen
	16.08 Define, identify and describe the following: 16.08.01 tracheostomy 16.08.02 laryngectomy 16.08.03 stoma 16.08.04 tracheostomy tube
	16.09 Describe the special considerations in airway management and ventilation for the pediatric patient.
	16.10 Demonstrate the techniques of suctioning in all age groups.
	16.11 Demonstrate relief of FBAO in all age groups.
	16.12 Demonstrate how to insert an oral and nasal -airway adjunct in all age groups.
	16.13 Demonstrate how to insert both esophageal and supra-glottic airways in all age groups.
17.0	**Respirations:** Demonstrate a fundamental depth, foundational breadth of respiration. – The student will be able to:

	17.01	Review the pulmonary ventilation process to include mechanics of ventilation and alveolar ventilation (tidal volumes, dead space, etc.).
	17.02	Describe the oxygenation process.
	17.03	Explain both external and internal respiration process.
	17.04	Discuss the various pathophysiologies of the respiratory system.
	17.05	Describe assessment and management for adequate and inadequate respiration, including the use of pulse oximetry and capnography.
	17.06	State the following for oxygen delivery devices: 17.06.01 components 17.06.02 purpose 17.06.03 indications 17.06.04 contraindications 17.06.05 complications 17.06.06 procedures
	17.07	Describe and demonstrate the steps in performing the skill of assisting ventilations in the conscious and unconscious patient in respiratory distress using a bag-valve-mask (BVM), and continuous positive airway pressure (CPAP).
	17.08	Review the anatomy and physiology of the respiratory system including: 17.08.01 control of respirations 17.08.02 mechanics of respiration 17.08.03 pulmonary ventilation 17.08.04 oxygenation 17.08.05 mechanical ventilation
	17.09	Explain the rationale for providing adequate oxygenation through high inspired oxygen concentrations to patients who, in the past, may have received low concentrations.
	17.10	Demonstrate the correct operation of oxygen tanks and regulators.
	17.11	Demonstrate the use of high, medium, low and variable concentration oxygen delivery devices for all age groups.
	17.12	Demonstrate the use of an oxygen humidifier and the requirements needed for its use.
	17.13	Discuss the differences between negative pressure and positive pressure ventilation.
18.0	**Artificial Ventilations:** Demonstrate a fundamental depth, foundational breadth of assessment and management utilizing artificial ventilation. – The student will be able to:	
	18.01	Demonstrate how to artificially ventilate a patient with a pocket mask.
	18.02	Demonstrate the steps in performing the skill of artificially ventilating a patient with a BVM for one and two rescuers using oral-nasal airway adjusts, head tilt chin lift and jaw thrust.
	18.03	Demonstrate the signs of adequate and inadequate artificial ventilation using the BVM.

	18.04 Describe and demonstrate the steps in artificially ventilating a patient with a manually triggered ventilation device.
	18.05 Demonstrate how to artificially ventilate the pediatric, adult and geriatric patient.
	18.06 Describe the steps involved in performing a comprehensive assessment of ventilations in all age groups.
	18.07 Demonstrate how to artificially ventilate a patient with a stoma.
	18.08 Demonstrate how to artificially ventilate a patient for all age groups.
	18.09 Demonstrate the use of various devices used in the assessment of supra-glottic and esophageal airway placement.
19.0	**Scene Size-Up:** Demonstrate a fundamental depth, foundational breadth of scene management and multiple patient situations**.** – The student will be able to:
	19.01 Recognize and describe hazards/potential hazards at the scene.
	19.02 Discuss common mechanisms of injury/nature of illness.
	19.03 Discuss the procedures for multiple-patient situations.
	19.04 Explain why it is important for the EMT to determine the need for additional or specialized resources.
	19.05 Discuss the importance of continuous scene assessment to ensure safety of the EMS team and the patient.
	19.06 List the minimum standard precautions that should be followed and PPE that should be worn at the emergency scene.
	19.07 Determine special considerations for dealing with a violent scene.
	19.08 Explain the rationale for crew members to evaluate scene safety prior to entering.
	19.09 Explain how patient situations affect your evaluation of mechanism of injury or illness.
20.0	**Primary Assessment:** Demonstrate a fundamental depth, simple breadth of the primary assessment for all patient situations. – The student will be able to:
	20.01 Summarize the elements of a general impression of the patient.
	20.02 Explain the reason for performing a primary assessment.
	20.03 Discuss and demonstrate methods of assessing altered mental status using assess for level of consciousness (AVPU).
	20.04 Discuss and demonstrate methods of assessing the airway and providing airway care.
	20.05 Describe and demonstrate methods used for assessing if a patient is breathing.
	20.06 Differentiate between a patient with adequate and inadequate breathing.

	20.07 Distinguish between methods of assessing breathing for all age groups.
	20.08 Describe and demonstrate the methods used to obtain a pulse in all age groups.
	20.09 Compare the methods of providing airway care in all age groups.
	20.10 Discuss and demonstrate the need for assessing the patient for external bleeding.
	20.11 Describe and demonstrate normal and abnormal findings when assessing skin color, temperature, moisture and capillary refill for all age groups.
	20.12 Explain the reason for and demonstrate prioritizing a patient for care and transport.
	20.13 Describe when it is appropriate to expose the patient completely.
	20.14 Differentiate between critical life-threatening, potentially life- threatening, and non-life-threatening patient presentations.
21.0	**History-Taking:** Demonstrate a fundamental depth, foundational breadth of the components of history taking. – The student will be able to:
	21.01 Determine the chief complaint.
	21.02 Investigate the chief complaint.
	21.03 Describe components of the patient history.
	21.04 Explain the importance of obtaining a SAMPLE and OPQRST history.
	21.05 Recognize and respond to the feelings patients experience during assessment.
	21.06 Discuss the value of obtaining a family and social history.
	21.07 Describe examples of different techniques the EMT may use to obtain information from patients, family, or bystanders during the history taking process.
22.0	**Secondary Assessment:** Demonstrate a fundamental depth, foundational breadth of techniques used for a secondary assessment. – The student will be able to:
	22.01 Describe the unique needs and demonstrate assessing an individual with a specific chief complaint with no known prior history.
	22.02 Discuss the components and techniques of the physical exam and skills involved.
	22.03 Differentiate between the history and physical exam that are performed for responsive patients with no known prior history, responsive patients with a known prior history and unresponsive patients.
	22.04 State the circumstances for performing a rapid assessment.
	22.05 Discuss the reason for performing a focused history and physical exam.
	22.06 Describe and demonstrate the techniques of inspection, palpation, percussion, and auscultation.

	22.07 Describe and demonstrate the importance of obtaining a baseline set of vital signs.
	22.08 List normal blood pressure ranges for all age groups.
	22.09 Describe and demonstrate the head to toe examination.
	22.10 Demonstrate special examination techniques of the cardiovascular examination.
	22.11 Demonstrate the examination of the nervous system.
	22.12 Demonstrate a physical exam performed for a responsive patient with and without a known prior history.
	22.13 Demonstrate a physical exam performed for an unresponsive patient.
	22.14 Recognize and respond to the feelings patients experience during assessment.
23.0	**Monitoring Devices:** Demonstrate a simple depth, simple breath of monitoring devices within the scope of practice of the EMT. – The student will be able to:
	23.01 Explain and demonstrate the use and interpretation of pulse oximetry and capnography device readings.
	23.02 Demonstrate and understand the findings of a blood pressure measured by palpation, auscultation and electronic device.
	23.03 Describe and demonstrate the purpose, indications, procedure, normal findings, and limitations of the following patient monitoring technologies: 23.03.01 Pulse Oximetry 23.03.02 Glucometry 23.03.03 Capnography
	23.04 Demonstrate the application of a cardiac monitor.
24.0	**Reassessment:** Demonstrate a fundamental depth, foundational breadth of how and when to perform a reassessment for all patient situations. – The student will be able to:
	24.01 Describe the components of the reassessment and demonstrate the skills involved.
	24.02 Discuss the reasons for repeating the initial assessment as part of the reassessment.
	24.03 Explain trending assessment components and its value to other health professionals who assume care of the patient.
	24.04 Demonstrate the steps for performing the reassessment of patients in all age groups.
	24.05 Explain the rationale of recording additional sets of vital signs.
25.0	**Medical Overview:** Demonstrate a simple depth, foundation breadth of pathophysiology, assessment and management of medical complaints. – The student will be able to:
	25.01 Identify the assessment factors for a patient with a medical complaint including:

	25.01.01	scene safety
	25.01.02	environmental factors
	25.01.03	chief complaint
	25.01.04	non-life threatening conditions
	25.01.05	distracting injuries
	25.01.06	tunnel vision
	25.01.07	patient cooperation
	25.01.08	rescuer attitude
25.02	Discuss forming a field impression and utilizing available information to determine a differential diagnosis.	
26.0	**Neurology:** Demonstrate a fundamental depth, foundational breadth of the assessment and management of neurologic disorders/emergencies for all age groups. – The student will be able to:	
26.01	Review the anatomy and physiology of the nervous system.	
26.02	Describe the pathophysiology of the following neurologic disorders:	
	26.02.01	Altered Mental Status
	26.02.02	Stroke
	26.02.03	Transient Ischemic Attack
	26.02.04	Headache
	26.02.05	Seizures
	26.02.06	Syncope
26.03	Discuss and identify the causes, signs and symptoms of ischemic strokes, hemorrhagic strokes and transient ischemic attacks and their similarities and differences.	
26.04	Discuss and demonstrate how to use a stroke scoring system in the assessment of patients with suspected stroke.	
26.05	Define and differentiate generalize seizure, partial seizure and status epilepticus and list their possible causes.	
26.06	Define and differentiate migraine headache, sinus headache, tension headache and discuss how to distinguish a harmless headaches from something more serious.	
26.07	Define “altered mental status” and identify the possible causes.	
26.08	Describe and demonstrate the assessment and management of the patient with various neurological emergencies in all age groups to include:	
	26.08.01	strokes
	26.08.02	headaches
	26.08.03	seizures

	26.08.04	altered mental status
	26.09	Discuss the transport of the stroke patient to the appropriate treatment center.
27.0	**Abdominal and Gastrointestinal Disorder:** Demonstrate a fundamental depth, foundational breadth of the assessment and management of abdominal and gastrointestinal disorders/emergencies for all age groups. – The student will be able to:	
	27.01	Review the basic anatomy and physiology the gastrointestinal, genital and urinary systems.
	27.02	Describe the pathophysiology of the following abdominal and gastrointestinal disorders:
	27.02.01	Abdominal Pain
	27.02.02	Acute Abdomen
	27.02.03	Peritonitis
	27.02.04	Appendicitis
	27.02.05	Pancreatitis
	27.02.06	Cholecystitis
	27.02.07	Gastrointestinal bleeding
	27.02.08	Esophageal Varices
	27.02.09	Gastroenteritis
	27.02.10	Ulcers
	27.02.11	Intestinal Obstruction
	27.02.12	Hernia
	27.02.13	Abdominal Aortic Aneurysm
	27.03	Define the term," acute abdomen".
	27.04	Identify the signs and symptoms, and common causes of an acute abdomen.
	27.05	Define upper and lower gastrointestinal bleeding.
	27.06	Describe and demonstrate the assessment and management of the patient in all age groups with various gastrointestinal emergencies to include upper and lower gastrointestinal bleeding.
	27.07	Recognize the signs and symptoms related to upper and lower gastrointestinal bleeding.
	27.08	Define acute gastroenteritis.
	27.09	Differentiate between hemorrhagic and non-hemorrhagic abdominal pain.
	27.10	Discuss the signs and symptoms of peritoneal inflammation relative to acute abdominal pain.
28.0	**Immunology:** Demonstrate a fundamental depth, foundational breadth of the assessment and management of immunology disorders/emergencies for all age groups. – The student will be able to:	
	28.01	Define and differentiate allergic reaction and anaphylaxis.
	28.02	Describe the pathophysiology of the following immunology disorders:
	28.02.01	Allergic Reaction

	28.02.02 Anaphylaxis 28.02.03 Anaphylactic Shock
28.03	Describe and demonstrate the assessment and management of the patient in all age groups experiencing an allergic or anaphylactic reaction.
28.04	State the following for the epinephrine auto-injector: 28.04.01 generic and trade names 28.04.02 medication forms 28.04.03 dose 28.04.04 administration 28.04.05 action 28.04.06 contraindications
28.05	Demonstrate the use of epinephrine auto-injector.
28.06	Review the anatomy and physiology of the organs and structures related to anaphylaxis.
28.07	Describe the incidence, morbidity and mortality of anaphylaxis.
28.08	Identify the risk factors most predisposing to anaphylaxis.
28.09	Recognize the signs and symptoms related to anaphylaxis.
28.10	Describe the prevention of anaphylaxis and appropriate patient education.
28.11	List common antigens most frequently associated with anaphylaxis.
28.12	Demonstrate how to remove a stinger from a bee sting and proper management following its removal.
29.0	**Infectious Disease:** Demonstrate a simple depth, simple breadth of the assessment and management of a patient who may have an infectious disease for all age groups. – The student will be able to:
29.01	List the causes of infectious diseases.
29.02	Describe the pathophysiology of the following infectious diseases: 29.02.01 Hepatitis B 29.02.02 Hepatitis C 29.02.03 Tuberculosis 29.02.04 Human Immunodeficiency Virus (AIDS) 29.02.05 Severe Acute Respiratory Syndrome 29.02.06 West Nile Virus 29.02.07 Multidrug-Resistant Organisms
29.03	Describe and demonstrate the assessment and management of the patient in all age groups experiencing an infectious disease.
29.04	Discuss mandatory notification to State or Federal agencies of various diseases.

	29.05 Identify patients with risk factors for infectious disease.
	29.06 Explain the principles and practices of infection control in prehospital care.
	29.07 Describe and discuss the rationale for the various types of PPE.
	29.08 Discuss the proper disposal of contaminated supplies (sharps, gauze sponges, tourniquets, etc.).
	29.09 Discuss decontamination of the ambulance and disinfection of patient care equipment, and areas in which care of the patient occurred.
	29.10 Describe the actions to take if the EMS provider is exposed to an infectious disease.
	29.11 Demonstrate the ability to comply with body substance isolation guidelines.
30.0	**Endocrine Disorders:** Demonstrate a fundamental depth, foundational breadth of the assessment and management of endocrine disorders/emergencies for all age groups. – The student will be able to:
	30.01 Review the anatomy and physiology of the endocrine system and its main function in the body.
	30.02 Describe the pathophysiology of the following endocrine disorders: 30.02.01 Insulin Dependent Diabetes Mellitus 30.02.02 Non-Insulin Dependent Diabetes Mellitus 30.02.03 Hypoglycemia 30.02.04 Hyperglycemia 30.02.05 Diabetic Ketoacidosis(DKA) 30.02.06 Hyperglycemic Hyperosmolar Nonketotic Syndrome (HHNS)
	30.03 Define and differentiate diabetes (type I and II), Hypoglycemia, Hyperglycemia, insulin shock and diabetic ketoacidosis.
	30.04 Identify and demonstrate the steps in the management of the patient taking diabetic medicine with an altered mental status and a history of diabetes.
	30.05 State the following for oral glucose: 30.05.01 Generic and trade names 30.05.02 Medication forms 30.05.03 Dose 30.05.04 Administration 30.05.05 Action 30.05.06 Contraindications
	30.06 Demonstrate the steps of using a glucometer device and administering oral glucose.
	30.07 Describe and demonstrate the assessment and the management of the patient in all age groups experiencing an endocrinologic emergency to include hypo- and hyper-glycemia.
	30.08 Discuss the general assessment findings associated with endocrinologic emergencies.
	30.09 Differentiate between the pathophysiology of normal glucose metabolism and diabetic glucose metabolism.

	30.10 Recognize the signs and symptoms of the patient with hypoglycemia.
	30.11 Recognize the signs and symptoms of the patient with hyperglycemia.
	30.12 Discuss the pathophysiology of diabetic ketoacidosis.
	30.13 Recognize the signs and symptoms of the patient with diabetic ketoacidosis.
31.0	**Psychiatric:** Demonstrate a fundamental depth, foundational breadth regarding the assessment and management of psychiatric emergencies for all age groups. – The student will be able to:
	31.01 Define behavior, psychiatric disorders and behavioral emergencies.
	31.02 Describe the pathophysiology of the following psychiatric disorders: 31.02.01 Anxiety 31.02.02 Phobias 31.02.03 Depression 31.02.04 Paranoia 31.02.05 Psychosis 31.02.06 Schizophrenia 31.02.07 Suicidal Ideations 31.02.08 Agitated Delirium 31.02.09 Violence toward Others
	31.03 Discuss the general factors that may cause an alteration in a patient's behavior.
	31.04 Discuss the risk factors/signs or symptoms of various psychiatric emergencies to include suicide.
	31.05 Given an scenario, apply knowledge of the special medical/legal considerations for managing behavioral emergencies to include Florida statues: 31.05.01 Baker Act (FS 394.451) 31.05.02 Marchman Act (FS 397.601 and FS 397.675) 31.05.03 Emergency examination and treatment of incapacitated (FS401.445)
	31.06 Describe and demonstrate the assessment and management of the patient in all age groups experiencing a behavioral or psychiatric emergency.
	31.07 Describe the biological, psychosocial, and sociocultural influences on psychiatric disorders.
	31.08 Describe the special considerations for the safety of the EMS provider and EMS crew, the patient and bystanders when dealing with behavioral and psychiatric disorders.
	31.09 Describe methods of restraint that may be necessary in managing the emotionally disturbed patient and the possible legal implications.
	31.10 Explain the rationale for learning how to modify your behavior toward the patient with a behavioral emergency.
32.0	**Cardiovascular**: Demonstrate a fundamental depth, foundational breadth of the assessment and management of cardiovascular emergencies for all age groups. – The student will be able to:

	32.01 Review the basic anatomy and physiology of the cardiovascular system.
	32.02 Describe the pathophysiology of the following cardiovascular disorders: 32.02.01 Acute Coronary Syndrome 32.02.02 Angina pectoris 32.02.03 Thromboembolism 32.02.04 Myocardial infarction 32.02.05 Hypertensive emergencies 32.02.06 Aortic aneurysm/dissection 32.02.07 Left and right sided Heart Failure 32.02.08 Cardiogenic Shock 32.02.09 Hypertensive Emergencies 32.02.10 Cardiac Arrest
	32.03 Describe and demonstrate the assessment and management of the patient in all age groups experiencing a cardiac emergency.
	32.04 List the indications and contraindications for automated external defibrillation (AED).
	32.05 Explain the impact of age and weight on defibrillation.
	32.06 Discuss the position of comfort for patients with various cardiac emergencies.
	32.07 Explain the rationale for early defibrillation.
	32.08 Discuss the various types of automated external defibrillators.
	32.09 Differentiate between the fully automated and the semi-automated defibrillator.
	32.10 Understand the importance of maintenance and operators check list for AED's.
	32.11 Demonstrate the ability to use an AED according to the latest American Heart Association (AHA) guidelines.
	32.12 Explain the role medical direction plays in the use of automated external defibrillation.
	32.13 Explain the rationale for administering nitroglycerin and ASA to a patient with chest pain or discomfort.
	32.14 Demonstrate the assessment and documentation of patient response to the automated external defibrillator.
	32.15 Demonstrate the assessment and documentation of patient response to nitroglycerin.
33.0	**Toxicology:** Demonstrate a fundamental depth, foundational breadth of the assessment and management of toxicological (poisoning and overdose) emergencies for all age groups. – The student will be able to:
	33.01 Define and differentiate toxicology, poisoning and overdose.
	33.02 Describe the pathophysiology of the following toxicological emergencies: 33.02.01 Food Poisoning

	33.02.02 Carbon Monoxide Poisoning 33.02.03 Cyanide Poisoning 33.02.04 Exposure to Acid or Alkaline Substances 33.02.05 Exposure to Hydrocarbons 33.02.06 Methanol Ingestion 33.02.07 Isopropanol Ingestion 33.02.08 Ethylene Glycol Ingestion 33.02.09 Exposure to Poisonous Plants 33.02.10 Drug Withdrawal 33.02.11 Alcoholic Syndrome 33.02.12 Withdrawal syndrome (including delirium tremens) 33.02.13 Illicit Drug Use 33.02.14 Medication Overdose
33.03	List various ways that poisons enter the body.
33.04	List signs/symptoms associated with poisoning.
33.05	Discuss and demonstrate the assessment and management for the patient in all age groups with poisoning or overdose.
33.06	Discuss the role of the Poison Control Center with the nationwide contact number 800-222-1222 in the United States.
33.07	Explain the rationale for contacting medical direction early in the prehospital management of the poisoning or overdose patient.
34.0	**Respiratory:** Demonstrate a fundamental depth, foundational breadth of the assessment and management of respiratory disorders/emergencies for all age groups. – The student will be able to:
34.01	Review the basic anatomy and physiology of the respiratory system.
34.02	Describe the pathophysiology of the following respiratory disorders: 34.02.01 Chronic Obstructive Pulmonary Disease: Emphysema, Chronic Bronchitis, and Asthma 34.02.02 Pulmonary Edema 34.02.03 Spontaneous Pneumothorax 34.02.04 Hyperventilation Syndrome 34.02.05 Epiglottitis 34.02.06 Pertussis 34.02.07 Cystic Fibrosis 34.02.08 Pulmonary Embolism 34.02.09 Pneumonia 34.02.10 Viral Respiratory Infections 34.02.11 Poisonous Exposures
34.03	List signs of adequate air exchange.
34.04	State the signs and symptoms of a patient with respiratory distress.

	34.05 Describe and demonstrate the assessment and management of the patient in all age groups with a respiratory emergency.
	34.06 State the following for the metered-dose inhaler: 34.06.01 generic name 34.06.02 medication forms 34.06.03 dose 34.06.04 administration 34.06.05 action 34.06.06 indications 34.06.07 contraindications
	34.07 Describe and demonstrate the steps in facilitating the use of an inhaler.
	34.08 Differentiate between upper airway obstruction and lower airway disease in the patient for all age groups.
	34.09 Discuss the measures needed to ensure personal safety while attending to the patient with a respiratory emergency or infection.
	34.10 Demonstrate proper use of airway and ventilation devices.
	34.11 Explain the rationale and demonstrate the application of a CPAP/ BiPAP unit.
35.0	**Hematology:** Demonstrate a simple depth, simple breadth of the assessment, and management of hematology disorders for all age groups. – The student will be able to:
	35.01 Review the anatomy and physiology of blood.
	35.02 Describe the pathophysiology of the following hematology disorders: 35.02.01 Anemia 35.02.02 Sickle Cell Anemia / Sickle Cell Crisis 35.02.03 Hemophilia
	35.03 State the signs and symptoms of a patient with a Sickle Cell crisis or a clotting disorder.
	35.04 Describe and demonstrate the assessment and the management of the patient with Sickle cell crisis or a clotting disorder.
	35.05 Describe the anatomy and physiology of the hematologic system to the pathophysiology and assessment of patients with hematologic disorders such as Sickle cell.
36.0	**Genitourinary /Renal:** Demonstrate a simple depth, simple breath of the assessment and management of genitourinary/ renal emergency for all age groups. – The student will be able to:
	36.01.01 Review the basic anatomy and physiology of the genitourinary and renal systems
	36.02 Describe the pathophysiology of the following genitourinary/ renal disorders: 36.02.01 Urinary Tract Infection 36.02.02 Kidney Stones 36.02.03 Kidney Failure
	36.03 Understand the basic principles of kidney dialysis.

	36.04 Discuss the signs and symptoms of a patient with a dialysis emergency.
	36.05 Describe and demonstrate the assessment and management of the patient with a dialysis emergency.
37.0	**Gynecology:** Demonstrate a fundamental depth, foundational breadth of the assessment and management of gynecologic emergencies for all age groups. – The student will be able to:
	37.01 Review the basic anatomy and physiology of the female reproductive system.
	37.02 Describe the pathophysiology of the following gynecologic disorders and emergencies: 37.02.01 Sexual Assault 37.02.02 Nontraumatic Vaginal Bleeding 37.02.03 Menstrual Pain 37.02.04 Ovarian Cyst 37.02.05 Endometritis 37.02.06 Endometriosis 37.02.07 Pelvic Inflammatory Disease 37.02.08 Sexually Transmitted Diseases
	37.02.09 Describe and demonstrate the assessment and management of the patient in all age groups experiencing a gynecologic emergency to include: 37.02.10 excessive bleeding 37.02.11 abdominal pain 37.02.12 sexual assault.
	37.03 Discuss the special consideration and precautions an EMT must observe when arriving at the scene of a suspected case of sexual assault or rape.
	37.04 Describe the assessment and management of a patient who has experienced a sexual assault including the psychosocial impact and assessment findings/presentations.
	37.05 Value the importance of maintaining a patient's modesty and privacy while still being able to obtain necessary information.
	37.06 Defend the need to provide care for a patient of sexual assault, while still preventing destruction of crime scene information.
38.0	**Non-Traumatic Musculoskeletal Disorders:** Demonstrate a fundamental depth, foundational breadth of the assessment and management of non-traumatic fractures for all age groups. – The student will be able to:
	38.01 Review the basic anatomy and physiology of the musculoskeletal system.
	38.02 Describe and demonstrate the assessment and management of the patient in all age groups with a non-traumatic musculoskeletal emergency.
39.0	**Diseases of the Eyes, Ears, Nose, and Throat:** Demonstrate a simple depth, simple breadth in recognition and management of nose bleed for all age groups. – The student will be able to:
	39.01 Discuss the recognition and management of an epistaxis.
	39.02 Describe and demonstrate the assessment and management of the patient in all age groups with abnormal conditions affecting the eyes, ears, nose and throat.

40.0	**Shock and Resuscitation:** Demonstrate the application of fundamental knowledge of the causes, pathophysiology, and management of shock and respiratory failure. – The student will be able to:
	40.01 Discuss and identify causes and pathophysiology of the categories of hemorrhage and shock.
	40.02 Discuss and identify causes and pathophysiology of respiratory failure and arrest.
	40.03 Discuss and identify causes and pathophysiology of cardiac failure or arrest.
	40.04 Discuss the various types and degrees of shock.
	40.05 Discuss and identify post resuscitation and management.
	40.06 Explain the system components of CPR, the links in the AHA chain of survival and how each one relates to maximizing the survival of the patient.
	40.07 Show Provider (AHA guidelines) certification required prior to rescuer program completion.
	40.08 Discuss and distinguish the variations and causes between the management of the infant, child, adult and geriatric patient experiencing shock.
	40.09 Define and differentiate compensated and decompensated hemorrhagic shock.
	40.10 Defend the importance of teamwork, experience, and practice in preparation to manage the critical patient.
	40.11 Demonstrate how to perform one and two rescuer CPR, adult, child, and infant.
	40.12 Demonstrate how to perform rescuer level appropriate defibrillation in an adult, child, and infant patient.
	40.13 Demonstrate the steps of rescuer level appropriate post resuscitative care.
	40.14 Management and resuscitation of the critical patient.
	40.15 Demonstrate rapid decision making based on differential field diagnosis of the critical patient with a peri-arrest condition.
	40.16 Describe and demonstrate the assessment and management of the patient with hemorrhage and shock.
41.0	**Trauma Overview:** Demonstrate a fundamental depth, foundational breadth of pathophysiology, assessment and management of the trauma patient for all age groups. – The student will be able to:
	41.01 Discuss and define pathophysiology of the trauma patient.
	41.02 List and describe the components of a comprehensive trauma systems and levels of trauma centers.
	41.03 Describe the criteria for different transportation modes to a trauma center.
	41.04 Explain the relationship between mechanism of injury and potential energy, kinetic energy and work in relation to trauma: 41.04.01 Define energy, force, laws of motion 41.04.02 Explain the physics of trauma

	41.05 Define the term blunt and penetrating trauma and provide examples of the mechanism of injury (MOI) that would cause each to occur and include: 41.05.01 Effects of high, medium and low velocity penetrating trauma 41.05.02 Primary, secondary, tertiary and miscellaneous blast injuries 41.05.03 Factors to consider of a patient injured in a fall. 41.05.04 Consider all age groups
	41.06 Describe the kinematics of penetrating injuries.
	41.07 Discuss the role of documentation in trauma.
	41.08 Demonstrate the use of the Florida Trauma Alert Criteria, classify various types of trauma patients.
	41.09 Discuss and describe significant and non-significant Mechanism of Injury (MOI) and provide examples of each.
	41.10 Discuss and describe State of Florida's trauma scorecard methodologies as required in Florida Statute and Florida Administrative Code (F.A.C.).
	41.11 Discuss the National Trauma Triage Protocol of injured Patients.
42.0	**Bleeding:** Demonstrate a fundamental depth, foundational breadth of pathophysiology, assessment, and management of bleeding for all age groups. – The student will be able to:
	42.01 Review the anatomy and physiology of the circulatory system.
	42.02 Review the different types of bleeding and classes of hemorrhage.
	42.03 List signs and symptoms of shock (hypo-perfusion).
	42.04 Describe the body's physiologic response to bleeding.
	42.05 Review the pathophysiology of hemorrhagic shock.
	42.06 Explain the sense of urgency to transport patients that are bleeding and show signs of shock (hypoperfusion).
	42.07 Describe and demonstrate the assessment and management of a patient in all age groups with hemorrhagic shock.
	42.08 Demonstrate how to apply a commercial tourniquet.
	42.09 Formulate a field impression based upon the assessment findings for a patient with hemorrhagic shock.
43.0	**Chest Trauma:** Demonstrate a fundamental depth, simple breadth of pathophysiology, assessment and management of chest trauma for all age groups. – The student will be able to:
	43.01 Review the anatomy and physiology of the thoracic/chest cavity and respiratory system.
	43.02 Differentiate between a pneumothorax (open, simple and tension) and hemothorax.

	43.03 Discuss the pathophysiology and MOI of myocardial injuries, including the following: 43.03.01 pericardial tamponade 43.03.02 myocardial contusion, 43.03.03 myocardial rupture 43.03.04 commotio cordis
	43.04 Identify the need for rapid intervention and transport of the patient with thoracic injuries.
	43.05 Discuss the pathophysiology and MOI of specific chest wall injuries, including the following: 43.05.01 rib fracture 43.05.02 flail segment 43.05.03 sternal fracture
	43.06 Describe and demonstrate the assessment and management of injuries to the chest wall, lung and myocardial tissue.
	43.07 Identify the need for rapid intervention and transport of the patient with chest wall, lung and myocardial tissue injuries.
	43.08 Formulate a field impression based upon the assessment findings for a patient with chest trauma.
44.0	**Abdominal and Genitourinary Trauma:** Demonstrate a fundamental depth, simple breadth of pathophysiology, assessment and management of abdominal and genitourinary trauma for all age groups. – The student will be able to:
	44.01 Review the anatomy and physiology and of the abdominal cavity and genitourinary (both male and female) system.
	44.02 Describe the abdominal quadrants and the organs found within each quadrant.
	44.03 Describe the differences between hollow and solid organs.
	44.04 Discuss the pathophysiology and MOI for abdominal trauma including hallow and solid injuries.
	44.05 Describe and demonstrate the assessment and management of a patient with a suspected abdominal or genitourinary injury including: 44.05.01 Penetrating 44.05.02 Blunt 44.05.03 Open 44.05.04 Closed
	44.06 Formulate a field impression based upon the assessment findings for a patient with abdominal trauma.
45.0	**Orthopedic Trauma:** Demonstrate a fundamental depth, foundational breadth of pathophysiology, assessment, and management of orthopedic trauma for all age groups. – The student will be able to:
	45.01 Review the anatomy and physiology of the musculo-skeletal system.
	45.02 and Discuss pathophysiology and MOI for orthopedic injury including: 45.02.01 Fractures 45.02.02 Sprains 45.02.03 Strains 45.02.04 Pelvic Injury

	45.02.05 Amputation
45.03	Describe the different types of orthopedic injuries including: 45.03.01 Fractures 45.03.02 Sprains 45.03.03 Strains 45.03.04 Pelvic Injury 45.03.05 Amputation
45.04	List the primary signs and symptoms of extremity trauma.
45.05	Explain the rationale for stabilization of an open and a closed painful, swollen, deformed extremity.
45.06	Describe and demonstrate the assessment and management of a patient with a suspected orthopedic injury including: 45.06.01 Fractures 45.06.02 Sprains 45.06.03 Strains 45.06.04 Pelvic Injury 45.06.05 Amputation
45.07	Explain the benefits and general guidelines for the following management techniques: 45.07.01 Heat Therapy 45.07.02 Cold Therapy 45.07.03 Splinting
45.08	List the six “Ps” of orthopedic injury assessment.
45.09	Discuss the need for assessment of pulses, motor, and sensation before and after splinting.
45.10	Describe age-associated changes in the bones.
45.11	Discuss the usefulness of the pneumatic anti-shock garment (PASG) in the management of fractures.
45.12	Discuss the out-of-hospital management of dislocation/fractures, including splinting and realignment and sprains and strains.
45.13	Discuss the pathophysiology of replantation.
45.14	Explain the rationale for splinting at the scene versus load and go.
45.15	Demonstrate the proper use of following techniques for a patient with a suspected fracture: 45.15.01 Hard 45.15.02 Improvised 45.15.03 Soft 45.15.04 Traction splints
45.16	Formulate a field impression based upon the assessment findings for a patient with orthopedic trauma.

46.0	**Soft Tissue Trauma:** Demonstrate a fundamental depth, foundational breadth of pathophysiology, assessment, and management of soft tissue trauma for all age groups. - The student will be able to:
46.01	Review anatomy and physiology of the integumentary system to include the layers of the skin.
46.02	Describe the pathophysiology and MOI of wounds, burns, crush injuries and high pressure injection injuries.
46.03	Describe and demonstrate the assessment and management of the following types of closed soft tissue injuries: 46.03.01 wounds 46.03.02 burns 46.03.03 high pressure injection 46.03.04 crush syndrome injuries 46.03.05 compartment syndrome injuries 46.03.06 contusion 46.03.07 hematoma
46.04	Describe and demonstrate the assessment and management of the following types of open soft tissue injuries: 46.04.01 abrasions 46.04.02 lacerations 46.04.03 major arterial lacerations 46.04.04 avulsions, 46.04.05 bites 46.04.06 impaled objects 46.04.07 amputations 46.04.08 incisions 46.04.09 crush injuries 46.04.10 blast injuries 46.04.11 Penetrations/punctures.
46.05	Identify types of burn injuries, including: 46.05.01 thermal burn 46.05.02 inhalation burn 46.05.03 chemical burn 46.05.04 electrical burn 46.05.05 radiation exposure
46.06	Describe the depth classifications of burn injuries, including: 46.06.01 superficial burn 46.06.02 partial-thickness burn 46.06.03 full-thickness burn 46.06.04 Other depth classifications
46.07	Describe methods for determining body surface area percentage of a burn injury including the “rules of nines”, the "rules of palms”, and other methods.
46.08	Explain how the seriousness of a burn is related to its depth and extent (percent of body surface area (BSA) involved or rule of nines) for patients in all age groups.

	46.09 Differentiate and demonstrate the various management techniques for hemorrhage control of open soft tissue injuries, including but not limited to: 46.09.01 direct pressure 46.09.02 pressure dressing 46.09.03 tourniquet application 46.09.04 Hemostatic agents
	46.10 Differentiate between the types of injuries requiring the use of an occlusive versus non- occlusive dressing.
	46.11 Discuss the possible complications of an improperly applied dressing, bandage, tourniquet and hemostatic agents.
	46.12 Describe and demonstrate the assessment and management of specific burn injuries including: 46.12.01 Thermal 46.12.02 Inhalation 46.12.03 Chemical 46.12.04 Electrical 46.12.05 Radiation
	46.13 Formulate a field impression based upon the assessment findings for a patient with soft tissue trauma.
47.0	**Head, Facial, Neck, and Spine Trauma:** Demonstrate a fundamental depth, foundational breadth of pathophysiology, assessment, and management of head, facial, neck and spine trauma for all age groups. – The student will be able to:
	47.01 Review the anatomy and physiology and of the head, face, and neck (non-spinal).
	47.02 Describe the pathophysiology and MOI for head, face, and neck (non-spinal) hemorrhage.
	47.03 Describe and demonstrate the assessment and management of a patient with the following injuries to the head, face, and neck (non-spinal): 47.03.01 Penetrating Neck Trauma 47.03.02 Laryngotracheal injury 47.03.03 Skull Fracture 47.03.04 Facial Fracture 47.03.05 Eye Injury (foreign body) 47.03.06 Dental Trauma
	47.04 Recognize and manage life threats due to head, neck and spine trauma.
	47.05 Discuss and demonstrate the rationale and use of the Glasgow Coma Score.
	47.06 Formulate a field impression based upon the assessment findings for a patient with head, facial, and/or neck (non-spinal) trauma.
48.0	**Nervous System Trauma:** Demonstrate a fundamental depth, foundational breadth of pathophysiology, assessment, and management of nervous system trauma for all age groups. – The student will be able to:
	48.01 Review the anatomy and physiology and of the nervous system.
	48.02 Discuss the pathophysiology and MOI for brain and spinal injury including:

	48.02.01	Increased intracranial pressure (ICP)
	48.02.02	Concussion
	48.02.03	Contusion
48.03	Describe and demonstrate the assessment and management of a patient with a brain and spinal injury including:	
	48.03.01	Brain Trauma
	48.03.02	Spinal Cord Trauma
	48.03.03	Cervical Spine Trauma
48.04	Explain the rationale for motion restriction of the entire spine when a cervical spine injury is suspected.	
48.05	Explain the rationale for utilizing spinal motion restriction methods apart from the straps on the cots.	
48.06	Explain the rationale for utilizing a short spine motion restriction device when moving a patient from the sitting to the supine position.	
48.07	Given a scenario, defend whether or not to remove a helmet prior to transport of a patient.	
48.08	Demonstrate specific management techniques for a patient with a suspected spinal cord injury.	
48.09	Demonstrate various methods for stabilization and removal of a helmet.	
48.10	Demonstrate documentation of assessment before, during and after spinal motion restriction.	
48.11	Formulate a field impression based upon the assessment findings for a patient with brain and/or spinal trauma.	
49.0	**Special Considerations in Trauma:** Demonstrate a fundamental depth, foundational breadth of pathophysiology, assessment and management of trauma patients with special considerations for all age groups. – The student will be able to:	
49.01	Review the anatomy and physiology for the following trauma patients:	
	49.01.01	pregnant
	49.01.02	pediatric
	49.01.03	geriatric
	49.01.04	cognitively impaired
49.02	Discuss the pathophysiology and MOI of trauma in the following patients:	
	49.02.01	pregnant
	49.02.02	pediatric
	49.02.03	geriatric
	49.02.04	cognitively impaired
49.03	Discuss and demonstrate unique assessment and management considerations for the following trauma patients:	
	49.03.01	pregnant
	49.03.02	pediatric
	49.03.03	geriatric
	49.03.04	cognitively impaired
49.04	Formulate a field impression based upon the assessment findings for a patient requiring special considerations.	

50.0	**Environmental Emergencies:** Demonstrate a fundamental depth, foundational breadth of pathophysiology, assessment and management of environmental emergencies for all age groups. – The student will be able to:
	50.01 Define drowning and discuss its incidence, rick factors and prevention.
	50.02 Discuss the pathophysiology and MOI of the following: 50.02.01 Drowning and water related incidents 50.02.02 temperature-related illness 50.02.03 bites and envenomation 50.02.04 dysbarism such as high-altitude edema 50.02.05 diving injuries 50.02.06 lightning (electrical) injury 50.02.07 high altitude illness
	50.03 Describes and demonstrate the assessment and management for a patient with the following: 50.03.01 Drowning and water related incidents 50.03.02 temperature-related illness 50.03.03 bites and envenomation 50.03.04 dysbarism such as high-altitude edema 50.03.05 diving injuries 50.03.06 lightning (electrical) injury 50.03.07 high altitude illness
	50.04 Discuss the physics of the gas laws including: Boyle's, Dalton, Henry, and Charles.
	50.05 Discuss scene management and provider safety considerations for a submersion, diving, or lightning incident.
	50.06 Explain the five ways a body can lose heat.
	50.07 Identify the species of insects, spiders and snakes in the US that may cause life threatening injuries.
	50.08 Formulate a field impression based upon the assessment findings for a patient with an environmental emergency.
51.0	**Multi-Systems Trauma:** Demonstrate a fundamental depth, foundational breadth of the pathophysiology, assessment, and management of multi-system trauma and blast injuries. – The student will be able to:
	51.01 Discuss the pathophysiology and MOI of multi-system trauma and blast injuries.
	51.02 Discuss the golden principle of out-of-hospital trauma care.
	51.03 Describe and demonstrate assessment and management considerations for a patient of multi system trauma and blast injuries.
	51.04 Formulate a field impression based upon the assessment findings for a patient with multi systems trauma and/ or blast injuries.
52.0	**Obstetrics:** Demonstrate a fundamental depth, foundational breadth of management of the obstetric patient within the scope of practice of the EMT. – The student will be able to:
	52.01 Identify and describe the anatomical structures and functions of the female reproductive system and how these structures and functions change during pregnancy.

52.02	Define the stages of labor and discuss how to assess them.
52.03	Differentiate between normal delivery, abnormal delivery and complications associated with delivery.
52.04	Differentiate the management of a patient with pre-delivery emergencies from a normal delivery.
52.05	State the patient care measures for all stages of labor in a normal (cephalic) delivery for the mother and the newborn
52.06	Describe how to care for the newborn post-delivery.
52.07	Describe the management of the mother post-delivery.
52.08	State the patient care measures for all stages of labor in abnormal (non-cephalic) deliveries for the mother and the newborn.
52.09	Describe the procedures for handling complications of pregnancy.
52.10	Describe special considerations when meconium is present in amniotic fluid or during delivery.
52.11	Describe special patient care considerations of a premature baby.
52.12	Demonstrate how to listen to fetal heart tones.
52.13	Demonstrate the patient care measures for all stages of labor in a normal (cephalic) delivery for the mother and the newborn.
52.14	Demonstrate the patient care measures for all stages of labor in abnormal (non-cephalic) deliveries for the mother and the newborn.
52.15	Demonstrate the procedures for handling complications of pregnancy including pre-eclampsia and eclampsia.
53.0	**Neonatal Care:** Demonstrate a fundamental depth, foundational breadth of management of the newborn and neonatal patient within the scope of practice of the EMT. – The student will be able to:
53.01	Discuss and demonstrate assessment and management considerations of a neonate.
53.02	Define the term neonate.
53.03	Identify the factors that lead to premature birth and low birth weight newborns.
53.04	Calculate the APGAR score given various newborn situations.
53.05	Discuss the common signs when ventilator assistance is appropriate for a neonate.
53.06	Identify and discuss the use of oxygen/airway adjuncts in the neonate.
53.07	Discuss the steps in resuscitation of a neonate.
53.08	Discuss the signs of hypovolemia in a newborn.

	53.09 Discuss the effects maternal narcotic usage has on the newborn.
	53.10 Discuss the management/treatment plan for vomiting in the neonate.
	53.11 Discuss the assessment findings associated with common birth injuries in the neonate.
	53.12 Demonstrate assessment of APGAR scoring during a scenario.
	53.13 Demonstrate appropriate assessment technique for examining a neonate.
	53.14 Demonstrate appropriate assisted ventilations for a neonate.
	53.15 Demonstrate appropriate chest compression and ventilation technique for a neonate.
	53.16 Demonstrate the initial steps in resuscitation of a neonate.
	53.17 Demonstrate blow-by oxygen delivery for a neonate.
54.0	**Pediatrics:** Demonstrate a fundamental depth, fundamental breath of management of the pediatric patient within the scope of practice of the EMT. – The student will be able to:
	54.01 Review the anatomy, physiology and pathophysiology and differences of patients in the pediatric age ranges.
	54.02 Discuss the differences in approaching and assessing patients in the pediatric age ranges.
	54.03 Discuss and demonstrate assessment and management considerations for Sudden Unexplained Infant Death Syndrome (SUIDS).
	54.04 Describe the selection of appropriate airway adjuncts and ventilation devices for infants and children.
	54.05 Discuss complications of improper utilization of airway adjuncts and ventilation devices with infants and children.
	54.06 Describe the common causes, assessment and management of respiratory distress, failure, or arrest in infants and children.
	54.07 Discuss the common causes, assessment and management of hypoperfusion in infants and children.
	54.08 Discuss the common causes, assessment and management of cardiopulmonary arrest in infants and children.
	54.09 Describe the common causes, assessment and management of altered level of consciousness in infants and children.
	54.10 Describe the common causes, assessment and management of trauma in infants and children.
	54.11 Discuss the pathophysiology of hypo-perfusion in infants and children.
	54.12 Describe the common causes, assessment and management of hypoperfusion in infants and children.
	54.13 Describe the common causes, assessment and management of neurological emergencies in infants and children.

	54.14	Demonstrate proper technique for administering blow-by oxygen to infants and children.
	54.15	Demonstrate proper technique for suctioning of infants and children.
	54.16	Demonstrate appropriate use of airway adjuncts and ventilation devices with infants and children.
	54.17	Demonstrate age appropriate basic airway clearing maneuvers for infants and children with a completely obstructed airway.
	54.18	Demonstrate appropriate airway and breathing control maneuvers for infant and child trauma patients.
55.0	**Geriatrics:** Demonstrate a fundamental depth, foundational breadth of management of the geriatric patient within the scope of practice of the EMT. – The student will be able to:	
	55.01	Define and discuss the term “geriatrics”.
	55.02	Review the anatomy, physiology and pathophysiology of the geriatric patient.
	55.03	Discuss common emotional and psychological reactions to aging to include causes and manifestations.
	55.04	Discuss the problems with mobility in the elderly and develop strategies to prevent falls.
	55.05	Discuss factors that may complicate the assessment of the elderly patient including communication issues and methods to overcome them.
	55.06	Describe principles that should be employed when assessing and communicating with the elderly.
	55.07	Describe the common causes, assessment and management of the elderly patient with the following complaints.
	55.07.01	Pulmonary, including pneumonia, chronic obstructive pulmonary diseases, and pulmonary embolism.
	55.07.02	Cardiovascular, including myocardial infarction, heart failure, dysrhythmias, aneurism, and hypertension.
	55.07.03	Nervous system, including cerebral vascular disease, delirium, dementia, Alzheimer’s disease and Parkinson’s disease.
	55.07.04	Endocrine system, including diabetes and thyroid diseases.
	55.07.05	Gastrointestinal problems.
	55.07.06	Toxicological problems including alcohol/drug abuse and polypharmacy errors.
	55.07.07	Environmental considerations.
	55.07.08	Traumatic injuries, including orthopedic injuries, burns, and head injuries.
56.0	**Patients with Special Challenges:** Demonstrate a simple depth, simple breadth of management of the patient with special challenges. – The student will be able to:	
	56.01	Define child abuse /neglect

56.02	Define children with special health care needs.
56.03	Discuss the pathophysiology of abuse and neglect in infants and children.
56.04	Discuss the assessment and management/treatment plan for abuse and neglect in infants and children, including documentation and reporting.
56.05	Discuss the pathophysiology of children with special health care needs including technology.
56.06	Discuss the assessment management/treatment plan for children with special health care needs including technology assisted children.
56.07	Discuss the incidence and categories of abuse and assault.
56.08	Describe the characteristics associated with the profile of the typical abuser of a spouse, elder and child.
56.09	Identify the profile of the "at-risk" spouse, elder and child.
56.10	Discuss special considerations for the assessment and management of the abused patient.
56.11	Discuss the legal aspects of documentation and mandatory reporting associated with abused and assaulted patient.
56.12	Discuss considerations for approach, assessment and treatment of patients with the following impairments/disabilities: (LIST) Hearing, Vision, and Speech.
56.13	Describe paraplegia/quadriplegia.
56.14	Recognize the patient with a developmental disability.
56.15	Recognize the patient with Down's syndrome.
56.16	Describe the following diseases/illnesses: 56.16.01 Cerebral palsy 56.16.02 Cystic fibrosis 56.16.03 Spina bifida 56.16.04 Patients with a previous head injury
56.17	Identify a patient that is terminally ill.
56.18	Differentiate between the role of EMS provider and the role of the home care provider.
56.19	Discuss the aspects of home care that impact quality of the care for a given patient.
56.20	List complications commonly seen in the home care patients, which result in their hospitalization.
56.21	Define hospice care and comfort care.
56.22	List the stages of the grief process and relate them to an individual in hospice care.

	56.23 Describe airway maintenance devices typically found in the home care environment.
	56.24 Describe indwelling catheters, implanted central IV ports and central line monitoring.
	56.25 Identify failure of GI/GU devices found in the home care setting.
	56.26 Identify failure of ventilating devices found in the home care setting.
	56.27 Identify failure of vascular access devices found in the home care setting.
	56.28 Demonstrate the ability to assess a spouse, elder or child abused patient.
	56.29 Demonstrate the ability to assess a sexually assaulted patient.
	56.30 Demonstrate the assessment of a patient with a sensory deficit or developmental disability.
	56.31 Develop a treatment and management plan of the elderly psychiatric patient, including depression and suicide.
57.0	**Principles of Safely Operating a Ground Ambulance:** Demonstrate a simple depth, foundational breadth of risks and responsibilities of transport. – The student will be able to:
	57.01 Discuss the importance of performing regular vehicle and equipment inspection.
	57.02 Demonstrate how to perform a daily inspection of an ambulance.
	57.03 Describe the general provisions of Florida laws relating to the operation of the ambulance and privileges.
	57.04 Identify current local and state standards which influence ambulance design.
	57.05 Demonstrate how to place a patient in, and remove a patient from an ambulance.
	57.06 Discuss the guidelines for operating an ambulance safety during emergency and non-emergency situation/incident.
	57.07 Discuss considerations that are required for ensuring scene safety, including personal safety, patient safety, and traffic control.
	57.08 Demonstrate how to clean and disinfect the ambulance and equipment.
58.0	**Incident Management:** Demonstrate a fundamental depth, fundamental breadth of establishing and working within the incident management system. – The student will be able to:
	58.01 Explain the need for the incident management system (IMS)/incident command system (ICS) in managing emergency medical services incidents.
	58.02 Define the term disaster management.
	58.03 Discuss the importance of NIMS (National Incidence Management System).
	58.04 Describe the functional components of the incident management system in terms of the following: 58.04.01 Command

	58.04.02 Finance 58.04.03 Logistics 58.04.04 Operations 58.04.05 Planning	
	58.05	Differentiate between singular and unified command and when each is most applicable.
	58.06	Describe the role of command.
	58.07	Describe the need for transfer of command and procedures for transferring it.
	58.08	List and describe the functions of the following groups and leaders in ICS as it pertains to EMS incidents: 58.08.01 safety 58.08.02 logistics 58.08.03 rehabilitation 58.08.04 staging, 58.08.05 treatment 58.08.06 triage 58.08.07 transportation 58.08.08 extrication/rescue 58.08.09 morgue 58.08.10 communications
	58.09	Describe techniques used to allocate patients to hospitals and track them.
	58.10	List the physical and psychological signs of critical incident stress.
	58.11	Explain the organizational benefits for having standard operating procedures (SOPs) for using the incident management system or incident command system.
59.0	**Multiple Casualty Incidents:** Demonstrate a simple depth, foundational breadth of responding to an emergency during a multiple casualty incident. – The student will be able to:	
	59.01	Describe essential elements of scene size-up when arriving at a potential MCI.
	59.02	Describe the role of the rescuers and EMS systems in planning for MCIs and disasters.
	59.03	Describe the role of the physician at multiple casualty incidents.
	59.04	Define triage and describe the principles of triage.
	59.05	Describe the START (simple triage and rapid treatment) method of initial triage.
	59.06	Describe techniques used to allocate patients to hospitals and track them.
	59.07	List and describe the essential equipment to provide logistical support to MCI operations, including but not limited to: 59.07.01 Airway 59.07.02 respiratory and hemorrhage control

	59.07.03	Burn management
	59.07.04	Patient packaging/immobilization
59.08	List the physical and psychological signs of critical incident stress.	
59.09	Describe the role of critical incident stress management sessions in MCIs.	
59.10	Explain the organizational benefits for having standard operating procedures (SOPs) for using the incident management system or incident command system.	
59.11	Demonstrate the use of local/regional triage tagging system used for primary and secondary triage.	
59.12	Given a classroom simulation of a MCI with 5-10 patients, fulfill the role of triage group leader.	
60.0	**Air Medical:** Demonstrate a simple depth, simple breadth of safe air medical operations and criteria for utilizing air medical response. – The student will be able to:	
60.01	Discuss safe air medical operations.	
60.02	Describe key scene safety considerations when preparing for a helicopter medivac, including establishing a landing zone and approaching the aircraft.	
60.03	Describe the capabilities, protocols, and methods for accessing air medical transport.	
60.04	Describe the advantages and disadvantages of air medical transport.	
60.05	Identify the conditions/situations in which air medical transport should be considered.	
60.06	Assess personal practices relative to air medical operations which may affect the safety of the crew, the patient, and bystanders.	
60.07	Perform setting up an air medical helicopter landing zone.	
61.0	**Vehicle Extrication:** Demonstrate a simple depth, simple breadth for safe vehicle extrication and use of simple hand tools. – The student will be able to:	
61.01	Describe the role of the EMT in patient rescue and vehicle extrication.	
61.02	Describe personal and patient safety during vehicle extrication.	
61.03	Explain the difference between simple access and complex access in vehicle extrication.	
61.04	Discuss patient care consideration related to assisting with rapid extrication, providing emergency care to the trapped patient and removing and transferring a patient.	
61.05	Discuss the use of simple hand tools used for vehicle extrication.	
61.06	Describe the effects of traffic flow on the highway rescue incident including limited access superhighways and regular access highways.	
61.07	List and describe the hazards associated with the following auto/ truck components:	
	61.07.01	energy absorbing bumpers
	61.07.02	air bag/supplemental restraint systems

	61.07.03	catalytic converters and conventional fuel systems
	61.07.04	stored energy
	61.07.05	alternate fuel systems
61.08	Describe methods for emergency stabilization using rope, cribbing, jacks, spare tire, and come-a-longs for vehicles.	
61.09	Describe the electrical hazards commonly found at highway incidents (above and below ground).	
61.10	Explain the difference between tempered and safety glass, identify its locations on a vehicle and how to break it safely.	
61.11	Explain typical door anatomy and methods to access through stuck doors.	
61.12	Explain SRS or "air bag" systems and methods to neutralize them.	
61.13	Demonstrate the use of wood cribbing to stabilize a vehicle.	
61.14	Demonstrate how to gain access to a patient by using a spring- loaded center punch.	
62.0	**Hazardous Materials Awareness:** Demonstrate a simple depth, simple breadth of risks and responsibilities of operating in a cold zone at a hazardous material or other special incident. – The student will be able to:	
62.01	Identify resources for substance identification, decontamination and treatment information, including but not limited to the following:	
	62.01.01	poison control center
	62.01.02	medical control
	62.01.03	material safety data sheets (MSDS),
	62.01.04	reference textbooks
	62.01.05	computer databases
	62.01.06	Computer-Aided Management of Emergency Operations (CAMEO)
	62.01.07	CHEMTREC
	62.01.08	technical specialists
	62.01.09	Agency for toxic substances and disease registry
62.02	Explain primary and secondary contamination risk.	
62.03	List and describe the following routes of exposure:	
	62.03.01	topical
	62.03.02	respiratory
	62.03.03	gastrointestinal
	62.03.04	parenteral
62.04	Explain how the substance and route of contamination alters triage and decontamination methods.	
62.05	List and explain the common signs, symptoms and treatment for the following substances:	
	62.05.01	corrosives (acids/alkalis)

	62.05.02 pesticides (carbamates / organophosphates), 62.05.03 chemical asphyxiants (cyanide/carbon monoxide) 62.05.04 hydrocarbon solvents (xylene, methylene chloride)
62.06	Identify local facilities and resources capable of treating patients
62.07	Determine the appropriate level of PPE by considering the following: 62.07.01 Types 62.07.02 Application 62.07.03 Use and Limitations 62.07.04 Use of chemical compatibility chart
62.08	Explain specific decontamination procedures.
62.09	Demonstrate the donning and doffing of appropriate PPE.
62.10	Set up and demonstrate an emergency two-step decontamination process.
62.11	Identify DOT Labels, placards and markings that are used to designate HAZMAT materials.
62.12	Demonstrate the ability to use a variety of reference materials to identify a HAZMAT material.
63.0	**Mass Casualty Incidents Due to Terrorism and Disaster:** Demonstrate a simple depth, simple breadth of risks and responsibilities of operating on the scene of a natural or man-made disaster. – The student will be able to:
63.01	Describe the role of the EMT on the scene of a natural or man-made disaster.
63.02	Define the different types of terrorism and provide examples of incidents of each.
63.03	Describe personal and patient safety during a natural or man-made disaster.
63.04	Describe the factors related to ensuring situational safety at the site of a disaster and the procedures required.
63.05	Discuss the National Terrorism Advisory System.
63.06	Discuss factors to consider when responding to a terrorist situation.
63.07	Discuss important actions to take at the scene of a terrorist event such as: 63.07.01 scene safety 63.07.02 personal protection 63.07.03 notification procedures 63.07.04 available resources 63.07.05 working with in the command system
63.08	List the main categories of weapons of mass destruction.
63.09	Discuss the different types of chemical agents and their signs and symptoms.

63.10 Discuss the treatment and management of patients exposed to various types of chemical agents and radiation.
63.11 Define the different types of radiations and their effect on the human body.
63.12 Demonstrate the use of a nerve agent antidote kit.

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 Statute 401.2701 requires that the instructor-student ratio should not exceed 1:6. Hospital activity shall include a minimum of 20 hours of supervised clinical supervision, including 10 hours in a hospital emergency department. Clinical activity shall include appropriate patient assessment skills, intervention and documentation relevant to each clinical rotation.

Field internship shall include a competency based program to assure appropriate pre-hospital assessment and management of medical and trauma patients, as well as associated manual skills. The field internship activity shall include a minimum of 5 emergency runs resulting in patient care and transport appropriate for the EMT. In addition, the patient care component should include minimum competencies in patient assessment, airway management and ventilation, trauma and medical emergencies.

Special Notes

This program is ONLY authorized to be offered at the following districts: Lake, Manatee, Palm Beach, St. Johns, Sarasota and Taylor.

Once the students have successfully completed the EMT Program, They may be given a certificate stating that they have met all Emergency Medical Responder requirements.

This program W170205 has a statewide articulation agreement approved by the Florida State Board of Education:

Emergency Medical Services AS (1351090402) – 11 credit hours

Students who have completed an Emergency Medical Technician program at one of the grandfathered technical centers can enroll in a community college Emergency Medical Services-Associates Degree or Career Certificate Program program within five years of their completion date. Students seeking credit after five years must show proof of current EMT or Paramedic licensure. Students entering the community college will receive the same credit as native Career Certificate Program completers in these programs. Such students, however, must first meet the college's entry, residency, and academic requirements.

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)

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.

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.