

Emergency Medical Responder 1

(EMR 1)

COURSE OUTLINE - UC

DESCRIPTION:

Emergency Medical Responder 1 is designed for students interested in emergency medical services, hospital and safety public personnel such as emergency medical technician, firefighter, paramedic and emergency room personnel. This course provides a thorough understanding of anatomy and physiology through the study of medical terminology as applied to the body systems, their interrelationships, diseases, disorders, as well as instruction in legal and ethical principles, public health, infection control, and basic pharmacology. Emphasis is placed on career and employability preparation, critical thinking, leadership, interpersonal and communication skills. Activities in this course include work-based learning that connects students to industry and the local community.

INFORMATION:

PRE-REQUISITE: None

LENGTH: One Year

SECTOR: Public Services

PATHWAY: Emergency Response

ARTICULATED: Yes

UC A-G APPROVAL: Yes: College-Preparatory Elective (G) / Interdisciplinary

O*NET SOC CODES:

29-2041.00 Emergency Medical Technician and Paramedic

33-3051.00 Health Care Support Workers, All Other

53-3011.00 Ambulance Operators and Attendants

Orientation
<ul style="list-style-type: none"> A. Introduce the course and facilities. B. Discuss the syllabus and major objectives. C. Explain applicable classroom management procedures, and any operational guidelines. D. Review instructor/student expectations. E. Explain attendance requirements and procedures. F. Review grading and student evaluation procedures. G. Discuss the work-based learning aspect of the program, if applicable. H. Discuss the “next steps” related to additional education, training, and employment. I. Review classroom safety, emergency and disaster procedures.
1. Communication Skills
<ul style="list-style-type: none"> A. Demonstrate positive verbal communication skills using appropriate vocabulary, demeanor, and vocal tone in the classroom and/or worksite. B. Read and interpret written information and directions. C. Practice various forms of written communication appropriate to the occupation. D. Practice positive body language skills. E. Practice professional verbal skills for resolving a conflict. F. Demonstrate active listening skills including techniques for checking for understanding, and for obtaining clarification of directions.
2. Interpersonal Skills
<ul style="list-style-type: none"> A. Demonstrate positive teamwork skills by contributing to a group effort. B. Practice the importance of diversity awareness and sensitivity in the workplace. C. Define sexual harassment in the workplace and identify the employee’s role and responsibility. D. Practice participation skills. E. Identify different personality types and demonstrate flexibility and adaptability working with diverse individuals. F. Practice business and social etiquette skills appropriate to the occupation. G. Evaluate and discuss the role of business and personal ethics in decision making based on various job-related scenarios. H. Demonstrate the use of time management skills.

3. Employability Skills
<ul style="list-style-type: none"> A. Demonstrate appropriate attendance and punctuality practices for the classroom (and worksite, if applicable). B. Prepare a resume, cover letter, and job application. C. Demonstrate interviewing techniques in seeking employment, using appropriate tone, body language and professional dress and grooming standards. D. Identify strategies for employment retention. E. Identify and analyze sources of job information, including electronic sources and the impact of social networking on employability. F. Identify the need for continuing education, professional development, and professional growth in chosen field. G. Identify appropriate procedures for leaving a job. H. Review company policies and current trends in employee compatibility screening, drug screening, and background checks.
4. Leadership
<ul style="list-style-type: none"> A. Define leadership and identify the responsibilities, competencies, and behaviors of successful leaders. B. Work with peers to promote divergent and creative perspectives. C. Demonstrate how to organize and structure work, individually and in teams, for effective performance and the attainment of goals. D. Explain multiple approaches to conflict resolution and their appropriateness for a variety of situations in the workplace. E. Employ ethical behaviors and actions that positively influence others. F. Analyze the short-term and long-term effects a leader's actions and attitudes can have on productivity, morale, and organizational culture.
5. Personal and Occupational Safety
<ul style="list-style-type: none"> A. Demonstrate procedures to be followed in case of emergencies. B. Describe and discuss the procedure for reporting a work-related hazard or injury (worker's comp), including ways to report a potential safety hazard to a supervisor. C. Identify and discuss cyber ethics, cyber safety, and cyber security. D. Apply personal safety practices to and from the job. E. Recognize the effects of substance abuse in the workplace. F. Explain the importance of CAL-OSHA in the industry. G. Define and discuss ergonomics and proper body mechanics in relationship to working conditions. H. Describe the methods of Universal Precautions/Standards that prevent the spread of microorganisms. I. Demonstrate proper hand washing and gloving techniques.
6. Careers in Emergency Medical Services (EMS)

- A. Compare and contrast the roles and responsibilities of EMS professionals.
- B. Identify the levels of EMS education, training and licensure.
- C. Recognize the importance of personal and social media background checks for licensure.
- D. List personal characteristics and abilities required for success in the EMS field.
- E. Describe work values and communication styles that best align to EMS professions.
- F. Identify paid and unpaid experiences that help build a career in EMS.
- G. Discuss certification through the National Registry of Emergency Medical Technicians (NREMT)
- H. Explain the importance of continuing education/professional development.
- I. Develop career/education plan.

7. Wellness for Emergency Medical Responders

- A. Describe the proper appearance of an emergency medical responder.
- B. List the steps for self-care and emotional wellness.
- C. Recognize signs of stress and provide skills for stress management.
- D. Explore mental health awareness including post-traumatic stress disorder (PTSD).
- E. Describe the importance of handwashing and use of personal protection equipment (PPE).

8. Cultural Diversity

- A. Differentiate between culture, ethnicity, and race.
- B. Identify the major ethnic groups in the United States.
- C. Demonstrate how bias, prejudice, or stereotyping can become a barrier to effective relationships with others.
- D. Explain the difference between a nuclear family and an extended family.
- E. Identify ways in which language, personal space, touching, eye contact, and gestures are affected by cultural diversity.
- F. Compare the diverse health beliefs of different ethnic/cultural groups.
- G. List ways health care providers can show respect for the religious beliefs of others.
- H. Demonstrate empathic and respectful communication across cultures and all levels of care.

9. Introduction to Medical Terminology & Abbreviations

- A. Discuss the importance of medical terms and the development of the language of healthcare.
- B. Demonstrate the ability to use medical terms in their proper context.
- C. Define commonly used roots, prefixes, and suffixes.
- D. Demonstrate proper pronunciation of medical terms.
- E. Analyze medical terms by identifying the root, prefix, and suffix.
- F. Describe the financial implications of errors in the use of medical terminology.
- G. Build medical terms using roots, prefixes, suffixes, and combining vowels.
- H. Communicate effectively (in verbal and written forms) using medical terms for anatomy, disease, and diagnostic and therapeutic procedures.
- I. Identify common abbreviations used in medical, clerical and clinical areas.
- J. Identify abbreviations that can cause potential errors.

10. Terminology for Basic Human Anatomy and Physiology

- A. Discuss and demonstrate the importance and use of medical terminology on medical documentation.
- B. Identify, define, and spell word roots associated with the body structure and organization.
- C. Identify, define, and spell medical terms related to the components, diseases, disorders and conditions of the integumentary system.
- D. Identify, define, and spell medical terms related to the components, diseases, disorders and conditions of the respiratory system.
- E. Identify, define, and spell medical terms related to the components, diseases, disorders, and conditions of the digestive system.
- F. Identify, define, and spell medical terms related to the components, diseases, disorders, and conditions of the urinary system.
- G. Identify, define, and spell medical terms related to the components, diseases, disorders, and conditions of the cardiovascular system.
- H. Identify, define, and spell medical terms related to the components, diseases, disorders, and conditions of the musculo-skeletal system.
- I. Identify, define, and spell medical terms related to the components, diseases, disorders, and conditions of the reproductive systems.
- J. Identify, define, and spell medical terms related to the components, diseases, disorders, and conditions of the sensory systems.
- K. Identify, define, and spell medical terms related to the components, diseases, disorders, and conditions of the nervous system.
- L. Identify anatomical descriptors and fundamental human body structure.
- M. Describe the function and processes of the major body systems.
- N. Define basic word elements related to anatomy and physiology.
- O. Define anatomic reference systems and terms (e.g., anatomic position, body planes, directions, cavities).

11. Vital Signs

- A. Identify the four vital signs and the body functions measured by each.
- B. Describe the equipment and methods used to obtain and record a patient's vital signs.
- C. Accurately measure and record temperature.
- D. Accurately measure and record pulse.
- E. Accurately count and record respiration rate.
- F. Accurately measure and record pain level.

- G. Demonstrate the correct procedure for measuring and recording a patient's blood pressure (manually).
- H. Demonstrate the correct procedure for measuring and recording a patient's blood pressure (electronically).
- I. Discuss factors that influence the patient's vital signs including the normal and abnormal values.
- J. Properly clean, disinfect, and store vital sign equipment.

12. Legal & Ethical Principles

- A. Discuss the importance of ethics and legal responsibility in this industry sector.
- B. Summarize the Code of Ethics for EMS professionals.
- C. Describe the Emergency Medical Treatment and Active Labor Act (EMTALA) including hospital obligations and at least three penalties for violation of EMTALA.
- D. Discuss legal and ethical practices including HIPAA, patient confidentiality, malpractice liability and Patients' Bill of Rights.
- E. Utilize reasoned analysis to determine and defend when a scenario is ethical, unethical or legal.
- F. Examine the struggle inherent in separating culture, personal beliefs, and experiences from professional code of ethics.
- G. Demonstrate written documentation that serves as legal record of the care given to the client.
- H. Discuss the ethical and legal criteria for triage decisions and bed availability.
- I. List the various types of abuse and discuss the healthcare worker's mandated reporting obligations.

13. Public Health

- A. Define public health and discuss the conflict of protecting the health of many over the needs of the few.
- B. Define infectious diseases and identify at least four infectious diseases of concern to public health.
- C. Describe examples, causes, and problems of emerging and reemerging infectious diseases.
- D. Describe how infectious diseases can monopolize governmental activities, cause fear and hysteria.
- E. Outline the significant impact of infectious diseases on the world economy and freedom of movement.
- F. Explore the relationship between lifestyle, disease and healthcare cost.
- G. Explain ethical theories for fair and just distribution and the arguments for a "right to health care."
- H. Explain considerations that guide decisions when conditions of scarcity occur.
- I. Define bioterrorism and identify how to prepare for at least three types of attacks.

14. Infection Control

- A. Describe the chain of infection.
- B. Classify infectious agents and the diseases they cause.
- C. Name primary bloodborne pathogens and describe how they are transmitted.
- D. Demonstrate donning and removal of personal protection equipment including gowns and gloves.
- E. Explain the proper use of body substance isolation (BSI) techniques.

- F. Demonstrate thorough handwashing and aseptic techniques.
- G. Follow safety precautions for cleaning equipment and work surfaces and disposing of contaminated materials.
- H. Identify at least four immediate steps to take after an exposure incident.

15. Immunity and Disease Prevention

- A. Describe the function of the immune system.
- B. Explain the humoral immune response and the role of antibodies.
- C. Describe the cell-mediated immune response and the role of T cells.
- D. List the basic steps for disease prevention.
- E. Explain treatment for bacterial, viral, fungal, and parasitic infectious diseases.
- F. Recognize the appropriate use of antibiotics and the problem of antibiotic resistance.
- G. Identify common childhood and adult vaccines for preventable infectious diseases.

16. Introduction to Pharmacology

- A. Identify common routes of administration and explain the benefits, advantages, and disadvantages.
- B. Describe various delivery methods of medications.
- C. Explain the difference between chemical, generic, and brand names.
- D. Demonstrate research techniques for obtaining drug information from established drug references sources.
- E. Define an adverse drug reaction and list examples.
- F. Define common terms related to pharmaceuticals.
- G. Describe the components of the drug cycle, absorption, distribution, metabolism, and excretion.
- H. Identify factors that influence the effects of medications.
- I. Describe medication concerns for special populations. (i.e. Pediatrics, Elderly, Obese, Pregnant.)

17. Medications

- A. Identify common over-the-counter medications and their uses.
- B. Identify common medications by brand and generic name.
- C. Differentiate between major classifications of medications.
- D. List commonly prescribed and abused medications, identify the “street” names and schedule.
- E. List uses, side effects, and interactions of commonly used medications.

18. Administration of Medications

- A. Decipher commonly used abbreviations, codes, and symbols used on prescriptions.
- B. Interpret labels found on medication containers.

- C. Identify storage and handling requirements for medications.
- D. Examine the scope of practice of Emergency Medical Responders in pharmacological interventions.
- E. Describe the role of Emergency Medical Responders in preventing medication errors.
- F. Demonstrate proper administering procedures for Epinephrine, Narcan, Glucose, and various medications.
- G. Describe methods for monitoring outcomes of administered medication.

19. Medical Math

- A. Accurately measure medications and perform dosage calculations.
- B. Identify the measurement terms used in apothecary, metric, and household systems.
- C. Convert between apothecary, household and metric systems such as pounds to kilograms and vice versa.
- D. Accurately add, subtract, multiply, and divide using whole numbers, decimals, fractions, percentages and ratios.
- E. Convert between decimals, percentages, fractions, and ratios.
- F. Convert between Fahrenheit and Celsius.
- G. Determine safe dosages for infants and children.
- H. Convert between Roman and Arabic numerals.
- I. Convert between standard and international/military time.

20. Death and Dying

- A. Identify the purpose of hospice care.
- B. List the rights of the dying patient.
- C. Discuss dying with dignity vs. dying in pain, agony or distress.
- D. Discuss the cultural differences regarding death and dying.
- E. Explain the five stages of the grieving process according to Dr. Kubler-Ross.
- F. Recognize and demonstrate good practices of death notification.
- G. Explain the purpose of advanced directives and the ethical challenges of honoring and implementing them.

21. (Optional) Fire Services / Emergency Medical Services

- A. Explain the history and role of the fire service.
- B. Identify and explain firefighter equipment, safety and fitness.
- C. Explain the following:
 1. Fireground Operations
 2. Wildland Operations
 3. Rescue Operations
- D. Describe fire topography and behavior.
- E. Describe community fire/medical services, including fire prevention.

- F. Examine how to prepare for a call, call volume and the interaction with other first responders and the general public.
- G. Identify key principles of an Incident Command System (ICS).
- H. Describe how Firefighting and EMS are integrated.

22. Portfolio

- A. Create a professional digital portfolio reflecting employability skills in the relevant industry to include an “About Me” page.
- B. Collect original works and documents that demonstrate technical skills and knowledge in the industry.
- C. Demonstrate knowledge of competencies by accompanying each selected document or work with a journal entry or summary.
- D. Write a brief resume and cover letter to be included in portfolio.
- E. Develop interviewing techniques using portfolio materials.
- F. Display portfolio materials for critique by a professional panel (industry partners and classmates).
- G. Gather feedback and update portfolio.

Key Assignments

Assignment	Competencies	Career Ready Practices	Anchor Standards	Pathway Standards	CCSS
1. Students will develop a career/education plan and participate in mock interviews that represent current industry practices (e.g., skills demonstrations, resumes, applications, portfolios, personal websites, etc.), thereby applying oral and written communication, interpersonal, leadership and employability skills.	1A-D, F 2A-H 3A-H 4A, C 6B, F, H 22A-G	1 2 3 4 10	2 3 4 10		LS 11-12.6 SLS 11-12.2
2. Students will complete an online career assessment, participate in industry tours, and explore an EMS professional career of their choice (making sure to research stress management, emotional and mental health problems in the field). Using the data from these activities, students will write a paper that is 3-5 pages in length. Each paper will be organized into six parts as follows: 1) Introduction and personal assessment. 2) Selection of a career, responsibilities, and wages. 3) Requirements for entry into the career, licensure, certification, and continuing education requirements. 4) Description of the profession today (includes self-care, stress management, emotional and mental health aspects). 5) Steps to take from the classroom to start of the job. 6) Projected growth of the selected career/job.	1B, C 2A-E, G 3D, F, H 6A-I 7A-E	1 2 3 4 6 10 11	2 3 4 6 10	B1.0 B4.0 B5.0	SLS 11-12.6 WS 11-12.6 WS 11-12.7
3. Students will practice medical abbreviations and terminology and learn the implications of potential errors by completing the OPQRST (Onset, Provocation/palliation, Quality, Region/Radiation, Severity, and Time) form of documentation for patient assessment / documentation and by explaining the chief complaint in layman's terms to a partner or the class.	1A-C 2A,B,D 4A-F 9A-J 10A-O 11C-J	1 2 5 7 9 11	2 5 7 9 10	B9.0	RLST 11.12.4 WS 11-12.6
4. In teams, students will develop an educational brochure for the	1A-E	1	2		LS 11-12.6

Assignment	Competencies	Career Ready Practices	Anchor Standards	Pathway Standards	CCSS
local hospital or community health center regarding the pathology of an organ within an assigned body system accompanied by a detailed and accurately labelled diagram or model. The brochure will describe the functions of the assigned body system, the identified organ and its overall function and interrelationship within the body system, the common diseases and disorders affecting the organ, as well as information regarding proper care and treatment. Students will develop a digital presentation of their research and present to the class; submit brochure to the hospital or community health center.	2A, B, D, E 4A-F 9B-H 10A-O	2 4 5 7 9 10 11 12	4 5 7 9 10	B3.0 B4.0 B9.0	RLST 11.12.4 WS 11-12.6
5. Students will collect the vital signs of other students and record the results. Students will compare and contrast the results obtained and speculate on the cause of the differences, taking into consideration the effects of exercise, medications, time of day, and nutrition.	1B, C, F 2B, D, F 7C-D 11A-J	1 2 5 9	2 5 8 9 10	B9.0	LS 11-12.6 RSTS 11-12.4 WS 11-12.7
6. In groups, students will research and evaluate an incident (past or present) where there was a violation of a healthcare regulation (e.g., HIPAA, EMTALA) or professional code of ethics. Students will present ethical issues surrounding the event, pick a side, and debate the responsibility of stakeholders (doctor, hospital, emergency medical service professional, patient, etc.). At the conclusion of the debate, students will write a 2–3 page paper in which they outline the healthcare regulation or code of ethics, summarize their arguments and analyze how their personal belief systems and cultural experiences impacted their arguments and views.	1A-C 2A, B, D 4A-C 12A-F, H 13B-H	1 2 4 5 8 9 11	2 4 5 8 9 10	B2.0 B3.0 B6.0	LS 11-12.6 SLS 11-12.2 SLS 12.6 WHSST 11-12.2 WS 11-12.7
7. In groups, students will research and write a report on an emerging or reemerging infectious disease. Students will provide evidence to show how the disease monopolized governmental resources, caused fear and hysteria in the general public, and impacted freedom of movement. The report will indicate the category of outbreak (endemic, epidemic or pandemic), its causative agent, signs and systems, mortality rates, prevention, treatment, and survivability rate. Students will detail the dangers	1B-D 2D 4A-C 11A-J 12A-H 13A-I 14A-H	1 2 4 5 8 9 11	2 4 5 8 9 10	B2.0 B3.0 B4.0 B6.0 B7.0	LS 11-12.6 SLS 11-12.2 WHSST 11-12.2 WS 11-12.6 WS 11-12.7

Assignment	Competencies	Career Ready Practices	Anchor Standards	Pathway Standards	CCSS
to EMS personnel as well as the effect the disease had on EMS infection control practices (PPE etc.), public health policies and triage decisions.	15A-G				
8. Students will properly don and remove gowns, gloves and correctly perform handwashing, aseptic and disinfecting techniques.	1B, F 2D 5A, D, H, I 14A-H 15D, E	1 2 6 12	2 6 10	B2.0 B4.0 B7.0	LS 11-12.6 RLST 11-12.4 WS 11-12.6
9. After watching videos and researching controversies about safety, risks, and benefits of childhood vaccines and coronavirus (or at least one adult infectious disease) vaccine, students will debate whether children should be vaccinated in order to attend school and whether American citizens exposed to coronavirus (or a highly infectious disease) and who have not received a vaccine should be allowed back into the country or in stores. At the conclusion of the debate, students will create a large poster depicting the role of inflammation, antibodies and vaccines in diseases prevention.	1A-F 2A,B,D-G 11B,C 12B-D 15A-D, G	2 4 5 8 9 11	2 4 5 8 9	B3.0 B4.0 B7.0 B9.0	LS 11-12.6 SLS 11-12.1 SLS 11-12.1d WS 11-12.7
10. Students will explore the formatting and layout features of the Physicians' Desk Reference, by looking up specific information about popular medications and noncontrolled substances; students will identify brand and generic names, classifications, indications, contra indications, dosage forms, dosage strengths, side effects, routes of administration, and other pertinent information learned in the course. Students will create a brochure or poster presentation of their findings and present to the class.	1A, C 2A, D 16A-I 17A-E	1 2 4 11 12	2 4 5 10	B3.0 B4.0 B6.0 B9.0	LS 11-12.6 RLST 11-12.4 N-Q 1 N-Q 2 N-Q 3
11. Students will translate common medical abbreviations, correctly transcribe a minimum of five prescriptions with 100% accuracy and use mathematical skills to calculate medical dosages based on various patients, diseases, and medication parameters while making conversions between the standard, apothecary, and metric systems (such as pounds to kilograms).	1B, C 2D, E, F 4C 16A-I 17A-E	1 2 4 5 11	2 4 5 7 10	B9.0	RLST 11-12.4 WHSST 11-12.2 N-Q 1 N-Q 2 N-Q 3

Assignment	Competencies	Career Ready Practices	Anchor Standards	Pathway Standards	CCSS
	18A-G 19A-I				
12. Student will contact a family member to explain the rights of the dying patient and draft an Advanced Directive for the family member. Student will write a 1–2-page reflection paper regarding the conversations they had with the family member, making sure to note any cultural differences on death and dying.	1A-F 2B, D, F 4D, F 8E-H 20A-G	1 2 4 7 8 11	2 4 7 8 10	B9.0	LS 11-12.6 SLS 11-12.2 WS 11-12.6
13. Students will run a mock clinic/urgent care.	1A-F 2A, B, D-F, H 3A 4A-C 5D 7A-E 8C,H 9B, D 11A-J 14A-H 15F,G 18B,D, F 19A	2 4 5 7 8 9 11	2 4 5 6 7 8 9 10	B2.0 B3.0 B4.0 B6.0 B7.0 B9.0	LS 11-12.6 RLST 11-12.4 SLS 11-12.1d SLS 11-12.1b
14. <i>(Optional)</i> In groups, students will prepare a class presentation on the key components of Fire Service Standards. They will also discuss the entry level skills set to build upon as a Fire Explorer and/or Fire Academy Cadet and the expectation as an entry level firefighter.	1B-D 2A, D 3B, C, E, F 4A-C 6A-I 21A-H	1 2 4 5 9 11 12	2 4 5 7 8 9	B1.0 B2.0 B3.0	LS 11-12.6 WS 11-12.6

Formative Assignments for Medical Terminology

1. Students will create a model of the human body and identify types of bones (long, short, flat, irregular), the structure and composition of bone, and divisions of the skeletal system (axial versus appendicular skeleton). Students will identify the major muscle groups, discuss the regions of muscles and describe the corresponding actions that help move the skeletal system.
2. In teams, students will research an assigned pathology affecting the integumentary system. Students will develop a digital presentation of their research, and present to the class.
3. Students will develop a working model of the respiratory system. They will demonstrate the inhalation and exhalation process and the muscles that are used. Students will write a 400-word essay explaining the harmful effects of smoking (vape, cigarettes, pipe, marijuana, secondhand smoke, etc.) to the respiratory system.
4. Students will develop a brochure intended to educate patients on kidney function, the process of urinalysis and its implications, and include various pathologies affecting the urinary system.
5. Using a variety of resources, students will research blood flow through the human body and create an accurate diagram illustrating the components of the heart, the arteries, veins, and capillaries. Students will describe the functions of each in the circulation process and indicate oxygenated blood as well as deoxygenated blood.
6. Students will develop an educational brochure of the eyes and include information regarding proper eye care, common diseases resulting in loss of vision, and provide conceptual methods to aid blind individuals.
7. Students will generate relevant questions, conduct research and prepare an informational campaign about a disease or condition that affects high school students. Students will implement their campaign on their campus.

Standards Assessed in this Program

Career Ready Practices

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

Anchor Standards

2.0 Communications

- Acquire and use accurately sector terminology and protocols at the career and college readiness level for communicating effectively in oral, written, and multimedia formats.

3.0 Career Planning and Management

- Integrate multiple sources of career information from diverse formats to make informed career decisions, solve problems, and manage personal career plans.

4.0 Technology

- Use existing and emerging technology to investigate, research, and produce products and services, including new information, as required in the sector workplace environment.

5.0 Problem Solving and Critical Thinking

- Conduct short, as well as more sustained, research to create alternative solutions to answer a question or solve a problem unique to the sector using critical and creative thinking, logical reasoning, analysis, inquiry, and problem-solving techniques.

6.0 Health and Safety

- Demonstrate health and safety procedures, regulations, and personal health practices and determine the meaning of symbols, key terms, and domain-specific words and phrases as related to the sector workplace environment.

7.0 Responsibility and Flexibility

- Initiate, and participate in, a range of collaborations demonstrating behaviors that reflect personal and professional responsibility, flexibility, and respect in the sector workplace environment and community settings.

8.0 Ethics and Legal Responsibilities

- Practice professional, ethical, and legal behavior, responding thoughtfully to diverse perspectives and resolving contradictions, when possible, consistent with applicable laws, regulations, and organizational norms.

9.0 Leadership and Teamwork

- Work with peers to promote divergent and creative perspectives, effective leadership, group dynamics, team and individual decision making, benefits of workforce diversity, and conflict resolution.

10.0 Technical Knowledge and Skills

- Apply essential technical knowledge and skills common to all pathways in the sector following procedures when carrying out experiments or performing technical tasks.

Pathway Standards

Public Services – Emergency Response Pathway

B1.0 Analyze the characteristics of different career fields within the Emergency Response pathway to develop a perspective on the nature of the work, entry-level requirements, career options, and expectations.

B2.0 Understand the processes by which emergency management organizations and emergency managers exert command and control over an emergency response and recovery operation.

B3.0 Demonstrate necessary leadership qualities, team concepts, and personal integrity for emergency response personnel.

B4.0 Execute safety procedures and protocols associated with local, state, and federal regulations in order to effectively and safely conduct duties within fire and emergency services.

B6.0 Understand the roles of federal, state, and local agencies in catastrophic event planning, preparation, response, and recovery.

B7.0 Research and define what is considered to be hazardous materials incidents and threats.

B9.0 Demonstrate the immediate basic life support and interim medical care for a sick, injured, or compromised person until advanced medical care is provided or transport is initiated.

Common Core State Standards

ENGLISH LANGUAGE ARTS

Language Standards

LS 11-12.6: Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the (career and college) readiness level, demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.

Reading Standards for Science and Technical Subjects

RSTS 11-12.4: Determine the meaning of symbols, key words, and other domain-specific words and phrases as they are used in a specific scientific or technical context.

Speaking and Listening Standards

SLS 11-12.1: Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners, building on others ideas and expressing their own clearly and persuasively.

SLS 11-12.1b: Work with peers to promote civil, democratic discussions and decision-making, set clear goals and deadlines, and establish individual roles as needed.

SLS 11-12.1d: Respond thoughtfully to diverse perspectives, synthesize comments, claims and evidence made on all sides of an issue, resolve contradictions when possible, and determine what additional information or research is required to deepen the investigation or complete the work.

SLS 11-12.2: Integrate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, orally) in order to make informed decisions, and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data.

Writing Standards

WS 11-12.6: Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback including new arguments and information.

WS 11-12.7: Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem, narrow or broaden the inquiry when appropriate, synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.

Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects

WHSST 11-12.4: Produce clear and coherent writing in which the development, organization, and style are appropriate to the task, purpose, and audience.

MATHEMATICS

Number and Quantity

N-Q 1: Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.

N-Q2: Define appropriate quantities for the purpose of descriptive modeling.

N-Q3: Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.