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**PROGRAM CONCENTRATION:** Healthcare Science  
**CAREER PATHWAY:** Therapeutic Services –  
Emergency Services  
**COURSE TITLE:** Emergency and Disaster Preparedness

**PREREQUISITE:** Introduction to Healthcare Science

Emergency and Disaster Preparedness is a preparatory course for the Peach State Pathway's Emergency Services career path which permits students the opportunity to explore the world of pre-hospital emergency care while attaining skills for dealing with disasters and emergency situations, including but not limited to: Disaster Psychology, Medical Assistance, Search/Rescue Techniques, and Fire Chemistry . The course culminates with students demonstrating their skills through participation in a simulated disaster scenario. The students are required to meet both national and intrastate professional guidelines as designated by applicable regulatory agencies such as Federal Emergency Management Agency (FEMA) and Georgia Emergency Management Agency (GEMA).

Upon completion of the course requirements and the final disaster simulation, students are eligible to obtain certifications in School Emergency Response Team (TEENSERT), American Heart Associations (AHA) Basic Life Support, and/or American Red Cross (ARC) First Aid and CPR.

## **ACADEMIC FOUNDATIONS**

**HS-EDP-1. Students will demonstrate knowledge and understanding of the academic subject matter required for proficiency within their area. Academic Standards are integrated throughout the standard statements within their applicable discipline areas and documented immediately following the standard statement.**

## **INTRODUCTION TO DISASTER PREPAREDNESS**

**HS-EDP-2. Students will discuss the history and basic overview of the following disaster preparedness/emergency management agencies, including but not limited to: Department of Homeland Security, Federal Emergency Management Agency (FEMA), Citizens Corps, and Georgia Emergency Management Agency (GEMA).**

- a. Identify and briefly discuss the history of the most common national, regional, state, and local disaster preparedness/emergency management agencies.
- b. Discuss the primary focus of the Citizens Corps as identified by FEMA.
- c. Differentiate between the basic responsibilities of each in an

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emergency/disaster situation: Citizens Emergency Response Team Member, Medical Reserve Corps Representative, First Responders, and Emergency Medical Technicians.

## **CARDIOPULMONARY RESUSCITATION**

*Completion of this standard will enable students to obtain certifications in the American Heart Association (AHA) Basic Life Support and/or American Red Cross (ARC) CPR.*

### **HS-EDP-3. Students will demonstrate the steps of Basic Life Support (BLS).**

- a. Demonstrate cardiopulmonary resuscitation on an infant, a child, and an adult (simulate using manikins).
- b. Utilize personal protective devices and the use of standard precautions for disease prevention.
- c. Identify when cardiopulmonary resuscitation may be discontinued once it has been initiated.
- d. Demonstrate the application, operation, and maintenance of an automated external defibrillator trainer.

## **DISASTER PREPAREDNESS**

### **HS-EDP-4. Students will identify the types of hazards most likely to affect his/her home and community and describe steps to prepare for emergencies.**

- a. Define a disaster and who makes up the response workforce.
- b. Analyze the potential effect of extreme emergencies and disasters on infrastructures, including but not limited to transportation, electrical service, telephone communication, fuel, food, water, shelter, and emergency services.
- c. Identify potentially hazardous conditions in the various types of structures and their contents during a disaster.
- d. Evaluate the steps to reduce the risk of damage from hazards that threaten your area.
- e. Demonstrate preparing the home, school, workplace, and community in advance to minimize disaster repercussions, including but not limited to assembling a disaster supply kit, developing a disaster plan, and designating a safe room.
- f. Understand the difference between evacuation versus sheltering in place.
- g. Understand the laws that protect disaster workers from liability.

## **FIRE CHEMISTRY**

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**HS-EDP-5. Students will understand the various origins of fires, classes of fires, and the correct means to extinguish each type of fire.**

- a. Explain the role that individuals play in fire safety.
- b. Identify and reduce potential fire risks in the home, school, and workplace.
- c. Conduct a basic size-up for a fire emergency.
- d. Understand minimum safety precautions, including safety equipment and utility control.
- e. Identify locations of hazardous materials in the home and reduce the risk from hazardous materials in the home.
- f. Extinguish small fires using a fire extinguisher.

**DISASTER MEDICAL ASSISTANCE**

*Completion of this standard will enable students to obtain AHA or ARC First Aid certification.*

**HS-EDP-6. Students will demonstrate the ability to identify and treat injuries of victims in a disaster or emergency situation.**

- a. Identify the “killers” (airway obstruction, bleeding, shock).
- b. Apply techniques for opening the airway, controlling bleeding, and treating for shock.
- c. Conduct triage under simulated disaster conditions.
- d. Take appropriate sanitation measures to protect the public health.
- e. Perform head-to-toe patient assessments.
- f. Apply splints to suspected fractures and sprains and employ basic treatments for other wounds.

**BASIC SEARCH AND RESCUE OPERATIONS**

**HS-EDP-7. Students will analyze the components of an effective search and rescue operation (size-up, search, and rescue) including the methods/techniques that rescuers can use to locate and safely remove victims.**

- a. Identify size-up requirements for potential search and rescue situations.
- b. Describe the most common techniques for searching a structure.
- c. Distinguish between simple and complex access.
- d. Demonstrate the use of safe techniques for debris removal and victim extrication, including but not limited to: the use of fulcrums and leverage, cribbing techniques, and victim transportation maneuvers.
- e. Describe methods to protect rescuers during search and rescue operations.

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- f. Understand the role that maps and Global Positioning Systems (GPS) play in search and rescue operation.
- g. Demonstrate proper communication with both emergency dispatch (911) and other rescuers.

**ACADEMIC STANDARDS:**

*MM2P1. Students will solve problems using appropriate technology.*

*MM2P4. Students will make connections among mathematical ideas and to other disciplines.*

*MM2P5. Students will represent mathematics in multiple ways.*

**DISASTER PSYCHOLOGY**

**HS-EDP-8. Students will evaluate techniques for managing intra-personal reactions to emergency/disaster situations to assist in effectively meeting the needs of the victims and rescuers.**

- a. Describe the disaster and post-disaster emotional environment.
- b. Describe the steps that rescuers can take to relieve personal stress and the stress of disaster survivors.

**TERRORISM AWARENESS**

**HS-EDP-9. Students will define terrorism and identify common terrorist goals.**

- a. Identify potential targets in the community.
- b. Discuss operating procedures for a terrorist incident.
- c. Identify the most commonly used terrorist weapons.
- d. Discuss the B-NICE indicators and the cues that help to identify when a terrorist attack has occurred.
- e. Describe the actions to take following a suspected terrorist incident.

**ACADEMIC STANDARDS: The following academic standards are integrated throughout the HS-EDP Standards.**

*SAP1. Students will analyze anatomical structures in relationship to their physiological functions.*

*SAP2. Students will analyze the interdependence of the integumentary, skeletal, and muscular systems as these relate to the protection, support and movement of the human body.*

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*SAP3. Students will assess the integration and coordination of body functions and their dependence on the endocrine and nervous systems to regulate physiological activities.*

*SAP4. Students will analyze the physical, chemical, and biological properties of process systems as these relate to transportation, absorption and excretion, including the cardiovascular, respiratory, digestive, excretory and immune systems.*

*SAP5. Students will analyze the role of the reproductive system as it pertains to the growth and development of humans.*

*ELA10C. The student demonstrates understanding and control of the rules of the English language, realizing that usage involves the appropriate application of conventions and grammar in both written and spoken formats.*

### **CTAE Foundation Skills**

The Foundation Skills for Career, Technical and Agricultural Education (CTAE) are critical competencies that students pursuing any career pathway should exhibit to be successful. As core standards for all career pathways in all program concentrations, these skills link career, technical and agricultural education to the state's academic performance standards.

The CTAE Foundation Skills are aligned to the foundation of the U. S. Department of Education's 16 Career Clusters. Endorsed by the National Career Technical Education Foundation (NCTEF) and the National Association of State Directors of Career Technical Education Consortium (NASDCTEc), the foundation skills were developed from an analysis of all pathways in the sixteen occupational areas. These standards were identified and validated by a national advisory group of employers, secondary and postsecondary educators, labor associations, and other stakeholders. The Knowledge and Skills provide learners a broad foundation for managing lifelong learning and career transitions in a rapidly changing economy.

**CTAE-FS-1 Technical Skills:** Learners achieve technical content skills necessary to pursue the full range of careers for all pathways in the program concentration.

**CTAE-FS-2 Academic Foundations:** Learners achieve state academic standards at or above grade level.

**CTAE-FS-3 Communications:** Learners use various communication skills in expressing and interpreting information.

**CTAE-FS-4 Problem Solving and Critical Thinking:** Learners define

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and solve problems, and use problem-solving and improvement methods and tools.

**CTAE-FS-5 Information Technology Applications:** Learners use multiple information technology devices to access, organize, process, transmit, and communicate information.

**CTAE-FS-6 Systems:** Learners understand a variety of organizational structures and functions.

**CTAE-FS-7 Safety, Health and Environment:** Learners employ safety, health and environmental management systems in corporations and comprehend their importance to organizational performance and regulatory compliance.

**CTAE-FS-8 Leadership and Teamwork:** Learners apply leadership and teamwork skills in collaborating with others to accomplish organizational goals and objectives.

**CTAE-FS-9 Ethics and Legal Responsibilities:** Learners commit to work ethics, behavior, and legal responsibilities in the workplace.

**CTAE-FS-10 Career Development:** Learners plan and manage academic-career plans and employment relations.

**CTAE-FS-11 Entrepreneurship:** Learners demonstrate understanding of concepts, processes, and behaviors associated with successful entrepreneurial performance.