First Aid, Emergency Response and CPR

Industry Sectors: Health Science and Medical Technology, Public Services, Education, Child Development and Family Services

Pathways: Patient Care, Mental & Behavioral Health, Emergency Response, Education

All students at Health Sciences High and Middle College will take this introductory course regardless of the pathway they choose to follow. This course offers students an in-depth understanding of Basic Life Support for the Health Care Provider and First Responder First Aid. This course also explores the legal obligations, privacy laws and job functions of health care professionals. Students will be introduced to human anatomy and physiology as well as medical terminology. The Common Core State Standards provide a consistent, clear understanding of what students are expected to learn, so teachers and parents know what they need to do to help them. The standards are designed to be robust and relevant to the real world, reflecting the knowledge and skills that our young people need for success in college and careers. With students fully prepared for the future, our communities will be best positioned to compete successfully in the global economy. The CCR anchor standards and high school grade-specific standards work in tandem to define college and career readiness expectations—the former providing broad standards, the latter providing additional specificity.

Last Revised: August 11, 2017
### Program Information

**Industries / Pathways:** Health Science and Medical Technology Industry, Public Services Industry, Education Industry; Patient Care, Mental & Behavioral Health; Emergency Response, and Education Pathways  
**Grade Levels:** 9-10  
**CSU/UC Approval:** No  
**Community College Course:** No  
**Pathway Sequence(s) That Include This Course:**  
1. **Patient Care Pathway Course Sequence:**  
   - Introduction to Health and Human Service Careers or Health Professions and Organizations  
   - *First Aid, Emergency Response and CPR*  
   - Career Explorations  
   - Anatomy and Physiology  
   - Introduction to Public Health or Health and Social Justice or Medical Terminology  
   - Hospital/Clinical Internship (10th, 11th, 12th)  
   - Realities of Nutrition or Substance Abuse and Public Health  
   - CPR Recertification  
   - Advanced Pre-nursing Seminar or Advanced Internship  

2. **Mental & Behavioral Health Pathway Course Sequence:**  
   - Introduction to Health and Human Service Careers or Health Professions and Organizations  
   - *First Aid, Emergency Response and CPR*  
   - Career Explorations  
   - Anatomy and Physiology  
   - Foundations of Mental & Behavioral Health Careers I or Health and Social Justice or Introduction to Public Health  
   - Mental Health Internship (10th, 11th, 12th)  
   - Foundations of Mental & Behavioral Health Careers II or Substance Abuse and Public Health or Introduction to Social Work  

### CTE Certification Elements

**Course Level:** Introductory  
**CALPADS Pathway:** HLT 198, HLT 195, PUB 233, EDU 132  
**CALPADS Course Title:** Emergency Med Response (CPR & First Aid)  
**State Course ID:** 7920, 7960, 7500, 8420  
**Total Hours:** 8  
**Course Length:** 1 Semester  
**Local Course Number:** PC5000, MH6000, ER7000, ED8002  
**Board Approval:** Pending Board Action on 12/7/17  
**Labor Market Demand:** High  
**Course Type:** Career-Technical Preparation

### Program Information (continued)

3. **Education Pathway Course Sequence:**  
   - Introduction to Health and Human Services Careers or Health Professions and Organizations  
   - *First Aid, Emergency Response and CPR*  
   - Career Explorations  
   - Education & Technology I  
   - Education & Technology II  
   - Education Internship (10th, 11th, 12th)  
   - PSYC 120 Intro to Psychology or COMM 103 Public Speaking  
   - ED 200 Teaching as a Profession  
   - HED 105 Health Education for Teachers  
   - CD 125 Child and Adolescent Development

4. **Emergency Response Pathway Course Sequence:**  
   - Introduction to Health and Human Service Careers or Health Professions and Organizations  
   - *First Aid, Emergency Response and CPR*  
   - Career Explorations  
   - Anatomy and Physiology
Competencies / Outcomes

1. Students will demonstrate knowledge of body substance isolation precautions.
2. Students will be able to demonstrate appropriate level of care during CPR and BLS skills testing.
3. Students will be able to perform single and two rescuer CPR on adults, children and infants.
4. Students can safely operate an AED.
5. Students will be able to mitigate choking hazards for adults, children and infants.
6. Students will be able to recognize and respond to First Aid Emergencies including: bleeding control, splinting, allergic reaction, stroke, seizures, and environmental emergencies.
7. Students will be able to define legal terms and demonstrate knowledge of privacy laws that protect patients and healthcare professionals.

Standards

California’s 2013 CTE Standards

1. CTE.PS.B.1.1 Understand the responsibilities, requirements, and advancement opportunities in emergency response careers.
2. CTE.PS.B.2.2 Understand the importance of an organized Command and Control System to provide for interoperability, efficiency, and effectiveness.
3. CTE.PS.B.3.2 Understand the characteristics and benefits of teamwork, leadership, and citizenship in community and workplace settings.
4. CTE.PS.B.3.4 List the standards for emergency response employee qualifications, training, and certification.
5. CTE.PS.B.3.5 Describe emergency response techniques and methods of active listening to obtain and clarify information in oral communications.
6. CTE.PS.B.3.6 Demonstrate a variety of appropriate and effective methods of communicating with the public, including techniques such as professional demeanor, active listening, empathy, projecting a confident tone of voice, paraphrasing, and the proper use of nonverbal body language.
7. CTE.PS.B.3.7 Adhere to Health Insurance Portability and Accountability Act (HIPAA) regulations and agency guidelines regarding public and media communications.
8. CTE.PS.B.3.8 Use appropriate terminology in clear, concise, and legible report entries when preparing and submitting required reports.
9. CTE.PS.B.3.9 Practice verbal and nonverbal emergency terminology and communication techniques to be used when interacting with emergency response personnel in a variety of emergency situations.
10. CTE.PS.B.4.2 Know and use the appropriate personal protective equipment (PPE) required for emergency services duties.
11. CTE.PS.B.4.3 Know how to establish situational awareness, identify hazards, and assess personal, team, or environmental risks.
12. CTE.PS.B.4.6 Complete certification in emergency care as appropriate—for example, cardiopulmonary resuscitation (CPR), automated external defibrillator (AED), and first aid.
13. CTE.PS.B.9.3 Perform technical skill and equipment use required for emergency response occupations—for example, airway, oxygen, and ventilation procedures; suction; bleeding control; shock management; cardiac arrest management; immobilization techniques; traction; splinting; transport; defibrillation; and wound management.
14. CTE.PS.B.9.6 Manage an incident scene as the first responder, using emergency response skills appropriate to training and certification.

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

Reading

1. RST.9-10.3 (9th and 10th) Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined in the text.
2. RST.11-12.3 (11th and 12th) Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.
3. RST.9-10.9 (9th-10th) Compare and contrast findings presented in a text to those from other sources (including their own experiments), noting when the findings support or contradict previous explanations or accounts.
4. RST.11-12.9 (11th and 12th) Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.

Writing

1. WHST.9-10.4, WHST.11-12.4 (9-10 & 11-12) Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

Units

<table>
<thead>
<tr>
<th>Unit 1: Provider Safety</th>
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<tbody>
<tr>
<td>Description</td>
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<tr>
<td>After completing this unit, the student will be able to provide safety knowledge and practices following the policies and procedures set forth by the American Heart Association. Lessons cover scene safety, scene size up, and types of personal protection equipment including gloves, goggles, and masks.</td>
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<tr>
<td>Key Activities/Topics</td>
</tr>
<tr>
<td>After completing this unit, the student will be able to properly:</td>
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<tr>
<td>1. List the standard precautions needed when responding to a medical emergency</td>
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<tr>
<td>2. Explain the concept of &quot;Scene Safety&quot;</td>
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</tbody>
</table>
3. Don and doff PPE (Personal Protective Equipment)
Key concepts and skills will be assessed through written and oral responses and demonstration of performance tasks.

## Unit 2: Cardiopulmonary Resuscitation

### Description
After completing this unit, students will be able to explain the function of the heart and the lungs. The students will be able to perform CPR, delivering adequate ventilations and chest compressions following the policies and procedures set forth by the American Heart Association.

### Key Activities/Topics
After successfully completing this course, students will be able to:

- **Perform CPR**
  1. Rescuer will perform high quality CPR with C-A-B sequence (adult/child/infant)
  2. Rescuer provides chest compressions of adequate depth
  3. Allow complete chest recoil after each compression

- **Breathing/Respirations**:
  1. Deliver appropriate breaths with minimal interruptions of compressions
  2. Two breaths for every 30 compressions
  3. Responder delivers rescue breaths at a rate of 1 breath every 6 to 8 seconds
  4. Rescuer ensures visible chest rise with each breath
  5. Avoid excessive ventilation

- **Practice Team CPR**:
  1. Team resuscitation to optimize coordinated CPR
  2. Change rescuers every two minutes to avoid compressor fatigue
  3. Provide constructive feedback to other team members

Key concepts and skills will be assessed through written and oral responses and demonstration of performance tasks.
### Unit 3: Automated External Defibrillator

**Description**

After completing this unit, students will be able to explain the function of an AED (Automated External Defibrillator). The student will also be able to properly use the AED. Students will be able to use the AED following the policies and procedures set forth by the American Heart Association.

**Key Activities/Topics**

After successfully completing this course, students should be able to:

1. Turn on and off the AED
2. Choose appropriate pads, adult or pediatric.
3. Properly place AED pads appropriately on patient, adult or pediatric.
4. Follows all AED prompts

Key concepts and skills will be assessed through written and oral responses and demonstration of performance tasks.

### Unit 4: Choking

**Description**

After completing this unit, students will be able to explain the hazard of choking. The student will also be able to properly administer choking interventions for adults, children, and infants. Furthermore, the student will be able to properly demonstrate choking policies and procedures set forth by American Heart Association.

**Key Activities/Topics**

After completing this unit, students will be able to:

1. Identify the medical emergency
2. Explain the nature of illness
3. Check the victim's air way ensuring that it is open
4. Ask the victim if they are choking and if the provider can help
5. Provide appropriate care for patient

Key concepts and skills will be assessed through written and oral responses and demonstration of performance tasks.
## Unit 5: Bleeding Control

### Description:
After completing this unit, students will be able to identify the emergency situation and locate the closest major artery that is proximal to the wound. The student will also be able to properly apply a tourniquet and or fabricate their own tourniquet using various supplies. Students will be able to use a tourniquet following the policies and procedures set forth by the American Heart Association.

### Key Activities/Topics:
After completing this unit, students will be able to:
1. Identify the medical emergency
2. Explain the difference between an arterial, venous and capillary bleed
3. Provide appropriate care for patient
4. Properly administer an Epinephrine Pen

Key concepts and skills will be assessed through written and oral responses and demonstration of performance tasks.

## Unit 6: Splinting Short Bones

### Description
After completing this unit, the students will be able to identify the emergency and identify the extremity which is injured. The student will also be able to properly apply a splint and or fabricate their own tourniquet using various supplies. Students will be able to use a splint following the policies and procedures set forth by American Heart Association.

### Key Activities/Topics
After completing this unit, students will be able to:
1. Identify the medical emergency
2. Explain the mechanism of injury
3. Provide appropriate care for patient
4. Properly apply a splint, above and below the joint of the injury
5. Check patient’s distal Pulse, Motor and Sensory (PMS)

Key concepts and skills will be assessed through written and oral responses and demonstration of performance tasks.
### Unit 7: Allergic Reaction

**Description**
After completing this unit, students will be able to identify nature of the allergic reaction. Students will also be able to properly use an epinephrine pen following the policies and procedures set forth by the American Heart Association.

**Key Activities/Topics**
After completing this unit, the student will be able to:
1. Identify the medical emergency
2. Explain the nature of illness
3. Provide appropriate care for patient
4. Properly administer an Epinephrine Pen

Key concepts and skills will be assessed through written and oral responses and demonstration of performance tasks.

### Unit 8: Stroke and Seizures

**Description**
After completing this unit, students will be able to identify nature of the patient's illness. Students will also be able to properly demonstrate medical interventions for the patient. Students will be able to apply medical interventions following the policies and procedures set forth by the American Heart Association.

**Key Activities/Topics**
After completing this unit, students will be able to:
1. Identify the medical emergency
2. Explain the difference between a stroke and a seizure
3. Provide appropriate care for patient

Key concepts and skills will be assessed through written and oral responses and demonstration of performance tasks.