

**EMC 104 Course Outline as of Fall 2014****CATALOG INFORMATION**

Dept and Nbr: EMC 104      Title: EMT BASIC  
 Full Title: Emergency Medical Technician Basic  
 Last Reviewed: 3/28/2011

Units	Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	5.00	Lecture Scheduled	3.00	17.5	Lecture Scheduled 52.50
Minimum	5.00	Lab Scheduled	3.00	9	Lab Scheduled 52.50
		Contact DHR	3.00		Contact DHR 52.50
		Contact Total	9.00		Contact Total 157.50
		Non-contact DHR	0		Non-contact DHR 0

Total Out of Class Hours: 105.00

Total Student Learning Hours: 262.50

Title 5 Category: AA Degree Applicable  
 Grading: Grade Only  
 Repeatability: 21 - Legally Mandated Repetition  
 Also Listed As:  
 Formerly: EMC 274

**Catalog Description:**

Basic level course primarily designed to meet the California State Department of Health requirements for the emergency medical technician who functions on an operational ambulance. Students are able to apply principles of anatomy, physiology and communications as they relate to the assessment of the sick and injured and rendering pre-hospital basic life support. Students will apply the above knowledge to develop manipulative skills necessary to the practice of an Emergency Medical Technician Basic. Students will be required to attend scheduled weekend activities. Students must be 18 years of age by course completion to be eligible for the State Department of Health certification. Course required for California EMT Basic certification.

**Prerequisites/Corequisites:**

Course Completion of EMC 100

**Recommended Preparation:**

Eligibility for ENGL 100 or ESL 100

**Limits on Enrollment:**

Student must have a current certification in Health Care Provider CPR

**Schedule of Classes Information:**

Description: Basic level course primarily designed to meet the California State Department of

Health requirements for the emergency medical technician who functions on an operational ambulance. Students are able to apply principles of anatomy, physiology and communications as they relate to the assessment of the sick and injured and rendering pre-hospital basic life support. Students will apply the above knowledge to develop manipulative skills necessary to the practice of an Emergency Medical Technician Basic. Students will be required to attend scheduled weekend activities. Students must be 18 years of age by course completion to be eligible for the State Department of Health certification. Course required for California EMT Basic certification. (Grade Only)

Prerequisites/Corequisites: Course Completion of EMC 100

Recommended: Eligibility for ENGL 100 or ESL 100

Limits on Enrollment: Student must have a current certification in Health Care Provider CPR

Transfer Credit:

Repeatability: Legally Mandated Repetition

### **ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:**

<b>AS Degree:</b>	<b>Area</b>	Effective:	Inactive:
<b>CSU GE:</b>	<b>Transfer Area</b>	Effective:	Inactive:

<b>IGETC:</b>	<b>Transfer Area</b>	Effective:	Inactive:
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<b>CSU Transfer:</b>	Effective:	Inactive:
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<b>UC Transfer:</b>	Effective:	Inactive:
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**CID:**

**Certificate/Major Applicable:**

Both Certificate and Major Applicable

### **COURSE CONTENT**

**Outcomes and Objectives:**

Upon the completion of this course, students will be able to:

1. Demonstrate knowledge of the Emergency Medical System (EMS) at the state and county level to include the medical-legal responsibilities of the Emergency Medical Technician (EMT).
2. Identify the basic anatomy and physiology of the:
  - A. Respiratory system
  - B. Cardiovascular system
  - C. Musculoskeletal system
  - D. Nervous System
  - E. Digestive system
3. Recognize a minimum of five mechanisms, signs and symptoms of the pathophysiology as related to basic emergency care:
  - A. Respiratory system
  - B. Cardiovascular system
  - C. Central nervous system
  - D. Integumentary systems
  - E. Musculoskeletal system
4. Identify five pre-hospital modalities appropriate for diagnoses

- involving the systems:
  - A. Respiratory system
  - B. Cardiovascular system
  - C. Central nervous system
  - D. Integumentary
  - E. Musculoskeletal system
- 5. Recognize minimum of three signs and symptoms and identify pre-hospital treatment of:
  - A. Diabetic emergencies
  - B. Environmental emergencies
  - C. Seizures
  - D. Behavioral emergencies
  - E. Communicable diseases
- 6. Identify the basic anatomy and physiology of normal childbirth, and recognize three complications of childbirth.
- 7. Identify at least two medical conditions specific to infant/pediatric and geriatric patients.
- 8. Define and apply five principles of triage and multi casualty incidents.
- 9. Demonstrate effective verbal and written communication skills as they relate to the Emergency Medical Services.
- 10. Recognize at least three components of emergency vehicle operation and safety.
- 11. Demonstration of good body mechanics for moving and lifting
- 12. Provide safe and appropriate techniques in extricating and moving victims involved in motor vehicle accidents.
- 13. Apply knowledge of accident scene management.
- 14. Recognize rescue equipment.
- 15. Apply principles of immobilization techniques.

### **Topics and Scope:**

- 1. Overview
  - A. EMS system
  - B. Role and responsibilities of EMT
- 2. First Principles of Emergency Care
  - A. Medical and legal
  - B. Communications and crisis intervention
- 3. Patient Assessment
  - A. Primary and secondary exam
  - B. Vital signs
  - C. Subjective/objective assessment plan
- 4. Respiratory System
  - A. Anatomy
  - B. Physiology
  - C. Oxygen therapy
- 5. Pathophysiology Systems of the Respiratory System
  - A. Disease processes
  - B. Assessment and treatment
- 6. Cardiovascular System
  - A. Anatomy
  - B. Physiology

7. Pathophysiology of the Cardiovascular System
  - A. Disease processes
  - B. Assessment and treatment
8. Shock
  - A. Classification
  - B. Assessment and treatment
9. Central Nervous System
  - A. Anatomy and physiology
  - B. Assessment and treatment
10. Integumentary system
  - A. Anatomy and physiology
  - B. Assessment and treatment
11. Muscular Skeletal System
  - A. Anatomy and physiology
  - B. Assessment and treatment
12. Altered Level of Consciousness-Medical Emergencies
  - A. Diabetes
  - B. Seizures
  - C. Stroke
13. Childbirth
  - A. Anatomy and physiology
  - B. Delivery procedure
  - C. Complications
14. Introduction to Ambulance
  - A. Interface with advanced life support
  - B. IV therapy
  - C. Safe driving
  - D. Patient transport
15. Behavioral Emergencies
  - A. Disease processes
  - B. Critical incident stress
16. Infectious disease
  - A. Hepatitis
  - B. HIV/ AIDS
17. Environmental Emergencies
  - A. Heat exposure
  - B. Cold exposure
  - C. Insect/spider/snakes
18. Pediatric/Geriatric
  - A. Abuse
  - B. Sudden infant death syndrome
  - C. Unique physiology
19. Patient Packaging
  - A. Size up
  - B. Stabilization
  - C. Access/Disentanglement
  - D. Patient assessment/care
  - E. Immobilization
  - F. Transport
20. Patient moving and lifting
  - A. Good body mechanics
  - B. Moving/lifting techniques

California Code of Regulations, Title 22 Section 100079 and Section 100081 states students must apply for certification within two (2) years of course completion and if there is a lapse in certification of greater than twenty-four (24) months, an individual shall complete an entire course.

**Assignment:**

1. Read approximately 30 pages per week.
2. Participate in 16 hours clinical time on an approved ambulance.
3. Complete report describing patient contact and clinical experience.
4. Weekly demonstration of skills utilizing scenario-based exercises.
5. Quizzes and exams will include:
  - a. 2 lab quizzes
  - b. 5 module exams
  - c. Performance midterm skills exam
  - d. Written and skills final exam
6. Complete 6 hours of volunteer activities
7. Title 22 State mandated attendance requirements

**Methods of Evaluation/Basis of Grade:**

**Writing:** Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

Clinical report	Writing 5 - 15%
<p><b>Problem Solving:</b> Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.</p>	<p>Problem solving 0 - 0%</p>
None	
<p><b>Skill Demonstrations:</b> All skill-based and physical demonstrations used for assessment purposes including skill performance exams.</p>	<p>Skill Demonstrations 20 - 20%</p>
Performance exams and scenarios	
<p><b>Exams:</b> All forms of formal testing, other than skill performance exams.</p>	<p>Exams 20 - 40%</p>
Lab quizzes, module exams, midterm skills exam, written and skills final exam: Multiple choice, Completion	
<p><b>Other:</b> Includes any assessment tools that do not logically fit into the above categories.</p>	<p>Other Category 30 - 50%</p>
State mandated attendance , volunteer activities	

**Representative Textbooks and Materials:**

EMT Complete 10th ed. 2006

Emergency Care and Transportation of the Sick and Injured, Jones and Bartlett, 10th ed. 2011

Instructor Prepared Material (EMT Basic Syllabus)