EMC 103 Course Outline as of Fall 2019

CATALOG INFORMATION

Dept and Nbr: EMC 103 Title: EMT
Full Title: Emergency Medical Technician
Last Reviewed: 9/27/2021

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	5.50	Lecture Scheduled	3.00	17.5	Lecture Scheduled	52.50
Minimum	5.50	Lab Scheduled	3.00	9	Lab Scheduled	52.50
		Contact DHR	4.50		Contact DHR	78.75
		Contact Total	10.50		Contact Total	183.75
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 105.00 Total Student Learning Hours: 288.75

Title 5 Category:	AA Degree Applicable
Grading:	Grade Only
Repeatability:	00 - Two Repeats if Grade was D, F, NC, or NP
Also Listed As:	
Formerly:	

Catalog Description:
Basic level course primarily designed to meet the California State Emergency Medical Services Authority (EMSA) 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. Students will be required to attend scheduled weekend activities. Students must be 18 years of age or have documentation demonstrating legal emancipation by first class meeting. Students must clear a criminal background check through Livescan (DOJ/FBI). Students must have current immunizations in accordance with state healthcare guidelines. Course required for California EMT certification.

Prerequisites/Corequisites:
Course Completion of EMC 100

Recommended Preparation:
Eligibility for ENGL 100 or ESL 100

Limits on Enrollment:
Student must be at least 18 years of age and pass DOJ/FBI Live Scan background check. Student must have current certification in American Heart Association Health Care Provider

CPR. Required immunizations in accordance with standard health care guidelines.

Schedule of Classes Information:
Description: Basic level course primarily designed to meet the California State Emergency Medical Services Authority (EMSA) 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. Students will be required to attend scheduled weekend activities. Students must be 18 years of age or have documentation demonstrating legal emancipation by first class meeting. Students must clear a criminal background check through Livescan (DOJ/FBI). Students must have current immunizations in accordance with state healthcare guidelines. Course required for California EMT certification. (Grade Only)
Prerequisites/Corequisites: Course Completion of EMC 100
Recommended: Eligibility for ENGL 100 or ESL 100
Limits on Enrollment: Student must be at least 18 years of age and pass DOJ/FBI Live Scan background check. Student must have current certification in American Heart Association Health Care Provider CPR. Required immunizations in accordance with standard health care guidelines.
Transfer Credit:
Repeatability: Two Repeats if Grade was D, F, NC, or NP

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree:	**Area**	Effective:	Inactive:
CSU GE:	**Transfer Area**	Effective:	Inactive:
IGETC:	**Transfer Area**	Effective:	Inactive:

CSU Transfer:	Effective:	Inactive:
UC Transfer:	Effective:	Inactive:

CID:

Certificate/Major Applicable:
Both Certificate and Major Applicable

COURSE CONTENT

Student Learning Outcomes:
At the conclusion of this course, the student should be able to:
1. Assess various emergency illnesses and injuries in order to prioritize treatment.
2. Demonstrate skills required to treat victims of a medical or trauma emergency.
3. Identify the job requirements of the Emergency Medical Technician as it relates to the Emergency Medical Service System.

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
   F. Endocrine system
   G. Genitourinary 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
   F. Endocrine system
   G. Genitourinary 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 systems
   E. Musculoskeletal system
   F. Endocrine system
   G. Genitourinary 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
   F. Poisoning and overdose
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.
16. Identify and demonstrate proper use of required ambulance equipment.
17. Identify and demonstrate proper use of communication equipment.
18. Demonstrate appropriate patient care documentation.
19. Identify and demonstrate appropriate use of Glucometry.
20. Identify appropriate operations in tactical operations.
21. Demonstrate proper administration of naloxone HCl (Narcan).

22. Demonstrate proper administration of epinephrine.
23. Identify and demonstrate appropriate use of Oximetry.

Topics and Scope:

I. Overview
   A. EMS system
   B. Role and responsibilities of EMT
II. First Principles of Emergency Care
   A. Medical-legal
   B. Communications and crisis intervention
   C. Documentation
III. Patient Assessment
   A. Primary and secondary exam
   B. Vital signs
   C. Subjective/objective assessment plan
   D. Medical history taking
IV. Respiratory System
   A. Anatomy
   B. Physiology
   C. Oxygen therapy
V. Pathophysiology of the Respiratory System
   A. Disease processes
   B. Assessment and treatment
   C. Oxygen therapy
VI. Cardiovascular System
   A. Anatomy
   B. Physiology
VII. Pathophysiology of the Cardiovascular System
   A. Disease processes
   B. Assessment and treatment
VIII. Shock
   A. Classifications
   B. Assessment and treatment
IX. Central Nervous System
   A. Anatomy, physiology and pathophysiology
   B. Assessment and treatment
X. Integumentary System
   A. Anatomy, physiology and pathophysiology
   B. Assessment and treatment
XI. Musculoskeletal System
   A. Anatomy, physiology and pathophysiology
   B. Assessment and treatment
XII. Altered Level of Consciousness-Medical Emergencies
   A. Diabetes
   B. Seizures
   C. Stroke
   D. Poisoning and overdose
XIII. Childbirth
   A. Anatomy, physiology and pathophysiology
   B. Delivery procedure
   C. Complications

XIV. Introduction to Ambulance Operation
   A. Safe driving
   B. Patient transport
XV. Interface with Advanced Life Support
   A. IV therapy
   B. Cardiac monitoring
   C. Advanced airway procedures
XVI. Behavioral Emergencies
   A. Disease processes
   B. Management including use of restraints
   C. Critical incident stress
XVII. Infectious Disease
   A. Hepatitis
   B. HIV/ AIDS
XVIII. Environmental Emergencies
   A. Heat exposure
   B. Cold exposure
   C. Insect/spider/snakes
   D. Barotrauma
   E. Radiation illness
XIX. Pediatric/Geriatric
   A. Abuse
   B. Sudden infant death syndrome
   C. Unique physiology
XX. Patient Packaging
   A. Size up
   B. Stabilization
   C. Access/Disentanglement
   D. Patient assessment/care
   E. Immobilization
   F. Transport
   G. Accident scene management
XXI. Patient Moving and Lifting
   A. Good body mechanics
   B. Moving/lifting techniques
XXII. Tactical Operations
   A. Interfacing with Law Enforcement
   B. Tactical communications
   C. Warm and hot zone operations

All Areas of the Topics and Scope are covered in both the Lecture and Lab portions of the course

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:

Lecture-Related Assignments:

1. Read approximately 30 pages per week
2. Participate in 24 hours of clinical time at an approved hospital or ambulance
3. Complete report describing patient contact and clinical experience

Lab-Related Assignments:
1. Weekly demonstration of skills utilizing scenario-based exercises
2. Quizzes and exams will include:
   A. Lab quizzes (2)
   B. Module exams (8)
   C. Performance midterm skills exam
   D. Written and skills final exam
3. Complete 8 hours of volunteer prescribed activities
4. 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%

Problem Solving: Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Scenario performance	Problem solving 10 - 20%

Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

Performance exams and scenarios	Skill Demonstrations 10 - 20%

Exams: All forms of formal testing, other than skill performance exams.

Lab quizzes, division module exams, midterm cognitive skills exam, written and skills final exam: Multiple choice, completion	Exams 20 - 40%

Other: Includes any assessment tools that do not logically fit into the above categories.

State mandated attendance, volunteer activities	Other Category 30 - 50%

Representative Textbooks and Materials:
Emergency Care and Transportation of the Sick and Injured. 11th ed. AAOS. Jones and Bartlett. 2016
EMT Complete: A Comprehensive Worktext. 2nd ed. LeBaudour, Chris and Batsie, Daniel and Dickinson, Edward. Brady. 2013 (classic)

Instructor prepared materials