

EMC 110A Course Outline as of Fall 2005**CATALOG INFORMATION**

Dept and Nbr: EMC 110A Title: EMT-PARAMEDIC
 Full Title: Emergency Medical Technician - Paramedic
 Last Reviewed: 3/12/2012

Units	Course Hours per Week		Nbr of Weeks	Course Hours Total		
Maximum	16.00	Lecture Scheduled	18.00	17.5	Lecture Scheduled	315.00
Minimum	16.00	Lab Scheduled	14.00	17	Lab Scheduled	245.00
		Contact DHR	0		Contact DHR	0
		Contact Total	32.00		Contact Total	560.00
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 630.00

Total Student Learning Hours: 1190.00

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: EMC 270A

Catalog Description:

Course designed to meet California State Health and Safety Code training requirements for emergency medical technician-paramedic. Students are able to apply the principles of anatomy, physiology, pathophysiology, clinical symptoms and diagnosis as they pertain to pre-hospital emergency medical care of the sick and injured. The first course leading to state certification as an EMT-Paramedic.

Prerequisites/Corequisites:

Course Completion of ANAT 58 and Course Completion of EMC 109 (or EMC 260) and Course Completion of EMC 114 (or EMC 275.1 or HLC 275B)

Recommended Preparation:

Completion for English 100 or ESL 100; Completion of CSKL372

Limits on Enrollment:

Valid California EMT-1 Certificate; Current Cardiopulmonary Resuscitation for Health Care Providers; Ability to lift, carry and balance in excess of 125 pounds. Required immunizations in accordance with standard health care guidelines. Background screening mandated by Federal and State regulations.

Schedule of Classes Information:

Description: This is the first course leading to licensure as an EMT-Paramedic in California.
(Grade Only)

Prerequisites/Corequisites: Course Completion of ANAT 58 and Course Completion of EMC 109 (or EMC 260) and Course Completion of EMC 114 (or EMC 275.1 or HLC 275B)

Recommended: Completion for English 100 or ESL 100; Completion of CSKL372

Limits on Enrollment: Valid California EMT-1 Certificate; Current Cardiopulmonary Resuscitation for Health Care Providers; Ability to lift, carry and balance in excess of 125 pounds. Required immunizations in accordance with standard health care guidelines.

Background screening mandated by Federal and State regulations.

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

Outcomes and Objectives:

Course Objectives are written to conform with those standards outlined in Chapter 1260 of the Statutes of the Health and Safety Code and Title 22 and Division 9, Pre-hospital Emergency Medical Service (EMS) of the California

Administrative Code. Objectives listed are for the eight state mandated modules.

At the completion of the course, the paramedic student will be able to:

1. Describe the roles and responsibilities of a Paramedic within an EMS system.
2. Apply the basic concepts of development, pathophysiology and pharmacology to assessment and management of patients with a medical or trauma emergency patients
3. Calculate formulas and demonstrate administration of medications within scope of practice
4. Demonstrate effective written and verbal communication with patients and members of health care team
5. Discuss and demonstrate establishing and /or maintaining a patent airway, oxygenating, and ventilating a patient
6. Define and apply components of medical history and examination to a patient with a medical or traumatic emergency

7. Perform a comprehensive physical history and exam on any emergency patient
8. Integrate pathophysiological principles and assessment findings to formulate a field impression and implement the treatment plan for the adult or pediatric trauma patient, medical patient or chronically ill patient
9. Identify components of scene safety and management
10. Recognize components of 12 Lead Electrocardiogram(EKG) and its significance in pre-hospital care

Topics and Scope:

Module 1: Pre-hospital Care Environment

- a. Roles and responsibilities
- b. Importance of personal wellness
- c. Injury prevention activities to reduce death, disabilities and health care cost.
- d. Legal issues as they apply to out-of-hospital environment
- e. Ethics and decision making as they apply to out-of-hospital environment
- f. Assessment and management of emergency patients
- g. Formulating a field impression and implementing a pharmacologic management plan
- h. Accessing the venous circulation and administering medications
- i. Effective communication with patients while providing care
- j. Physiological, psychological, and sociological changes throughout human development with assessment and communication strategies for patients of all ages

Module 2: Airway Management

- a. Anatomy and physiology of the respiratory system
- b. Basic and advanced life support - airway adjuncts
- c. Principles of oxygenation and ventilation
- d. Intubation and maintaining airways

Module 3: Patient Assessment

- a. Techniques to obtain a medical history from patient
- b. Pathophysiological significance of physical exams findings
- c. Principles of history taking and techniques of physical exam to perform patient assessment
- d. Clinical decision making to help form field impression
- e. Verbal dissemination of patient information, in person or over the radio
- f. Effective documentation of patient assessment, care and transport

Module 4: Trauma Patient

- a. Pathophysiological significance of traumatic injuries
- b. Principles of kinematics to enhance the patient assessment and predict injuries based on the mechanism of injury
- c. Recognition and treatment plan for the patient with:
 1. Shock or hemorrhage
 2. Soft tissue injury
 3. Burn injury
 4. Suspected head injury

5. Suspected spinal injury
6. Thoracic injury
7. Suspected abdominal trauma
8. Musculoskeletal injury

Module 5: Medical Patient

- a. Anatomy and physiology review of organ systems
- b. Recognition and treatment plan for the patient with:
 1. Respiratory problem
 2. Cardiovascular disease
 3. Neurological problem
 4. Endocrine problem
 5. Allergic or anaphylactic reaction
 6. Gastroenterologic problem
 7. Renal or urologic problem
 8. Toxic exposure
 9. Hematopoietic system problem
 10. Environmentally induced or exacerbated medical or traumatic condition
 11. Infectious and communicable diseases
 12. Behavioral emergencies
 13. Gynecological emergency
 14. Normal or abnormal labor

Module 6: Patient with special needs treatment plan for

- a. The neonatal patient
- b. The pediatric patient
- c. The geriatric patient
- d. The patient who has sustained abuse or assault
- e. Diverse patients who face physical, mental, social and financial challenges
- f. Chronically ill patients in the home environment

Module 7: Scene management

- a. Safe and effective ground and air medical transport
- b. Multiple casualty incident management techniques
- c. Rescue awareness from water, hazardous atmospheres, trenches, highways and hazardous terrain
- d. Hazardous materials emergencies
- e. Safe operation at crime scenes and other emergencies

Assignment:

Assignments include:

- a. Reading approximately 50 pages per week from assigned texts
- b. Memorization of state mandated policies and protocols as assigned
- c. Develop 32 drug profiles
- d. Memorize all protocols as assigned weekly
- e. Work in small groups to research assigned medical and trauma emergencies for class presentation
- f. Study for 15 quizzes and 5 division exams
- g. Complete 60 daily on-line activities
- h. Complete EKG worksheets as assigned

- i. Weekly group development and demonstration of scenarios utilizing assigned skills and protocols
- j. Complete final written exam
- k. Complete final pharmacological exam
- l. Complete final written psychomotor skills exam
- m. Scenario based simulations

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.

None, This is a degree applicable course but assessment tools based on writing are not included because problem solving assessments and skill demonstrations are more appropriate for this course.

Writing
0 - 0%

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

scenario discussions, demos, research projects

Problem solving
5 - 10%

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

Class performances, Performance exams, Paramedic psychomotor skills

Skill Demonstrations
25 - 50%

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

Multiple choice, True/false, Matching items

Exams
40 - 70%

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

None

Other Category
0 - 0%

Representative Textbooks and Materials:

- Bledsoe et al. Paramedic Principles and Practice. 2001
- Infor Med. ALS Version EMS Field Guide. 14th Edition
- Holland & Adams. Core Concepts in Pharmacology. 2004
- Atwood et al. Introduction to Basic Cardiac Dysrhythmias. 2004
- Gausche-Hill. Pediatric Education for PreHospital Professionals. 2001.
- American Heart Association. ACLS Provider Manual 2004 and Emergency Cardiac Guide Lines
- American Heart Association. Pediatric Advanced Life Support. 2004
- Campbell. Basic Trauma Life Support. 5th Edition

Instructor prepared materials

Standard Operating Procedure

Skills Handbook

Protocol Handbook

PreHospital Pharmacology Handbook