

EMC 161L Course Outline as of Fall 2024**CATALOG INFORMATION**

Dept and Nbr: EMC 161L Title: PARAMEDIC LABORATORY I
 Full Title: Paramedic Laboratory I
 Last Reviewed: 10/9/2023

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	4.00	Lecture Scheduled	1.00	17.5	Lecture Scheduled	17.50
Minimum	4.00	Lab Scheduled	7.00	12	Lab Scheduled	122.50
		Contact DHR	2.00		Contact DHR	35.00
		Contact Total	10.00		Contact Total	175.00
		Non-contact DHR	1.00		Non-contact DHR	17.50

Total Out of Class Hours: 35.00

Total Student Learning Hours: 227.50

Title 5 Category: AA Degree Applicable

Grading: Grade or P/NP

Repeatability: 00 - Two Repeats if Grade was D, F, NC, or NP

Also Listed As:

Formerly:

Catalog Description:

Students will acquire the skills of the psychomotor component of the current Department of Transportation National Emergency Services Education Standards (NEMSES) and California Code of Regulations, Title 22. Includes psychomotor skills associated with preparatory, anatomy and physiology, pharmacology, airway management, patient assessment, and trauma patient management. Upon successful completion of the course students will receive Prehospital Trauma Life Support (PHTLS) certification.

Prerequisites/Corequisites:

Course Completion of EMC 109 and EMC 114; AND Course Completion of either ANAT 1 or ANAT 40 or ANAT 58; Concurrent Enrollment in EMC 161

Recommended Preparation:**Limits on Enrollment:**

Enrollment in Paramedic Academy

Schedule of Classes Information:

Description: Students will acquire the skills of the psychomotor component of the current Department of Transportation National Emergency Services Education Standards (NEMSES)

and California Code of Regulations, Title 22. Includes psychomotor skills associated with preparatory, anatomy and physiology, pharmacology, airway management, patient assessment, and trauma patient management. Upon successful completion of the course students will receive Prehospital Trauma Life Support (PHTLS) certification. (Grade or P/NP)

Prerequisites/Corequisites: Course Completion of EMC 109 and EMC 114; AND Course Completion of either ANAT 1 or ANAT 40 or ANAT 58; Concurrent Enrollment in EMC 161
Recommended:

Limits on Enrollment: Enrollment in Paramedic Academy

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. Demonstrate ability to manage an adult airway.
2. Identify and demonstrate components of an adult patient assessment.
3. Describe and demonstrate techniques to administer medications as outlined in California Title 22, paramedic scope of practice and National Registry of Emergency Medical Technician.
4. Complete the Prehospital Trauma Life Support (PHTLS) certification.
5. Implement a comprehensive treatment and disposition plan for an acutely injured patient.

Objectives:

At the conclusion of this course, the student should be able to:

1. Perform a comprehensive history and physical examination to identify factors affecting the health and health needs of a patient.
2. Formulate a field impression based on an analysis of comprehensive assessment findings, anatomy, physiology, pathophysiology, and epidemiology.
3. Relate assessment findings to underlying pathological and physiological changes in the patient's condition.
4. Integrate and synthesize the multiple determinants of health and clinical care.
5. Perform psychomotor skills within the National EMS Scope of Practice Model and state scope of practice including: airway and breathing, patient assessment, pharmacological interventions, and trauma patient management.
6. Communicate in a manner that is culturally sensitive and intended to improve the patient

outcome.

Topics and Scope:

I. Airway and Breathing

- A. Basic Life Support (BLS) airway and oxygen administration
- B. Esophageal-tracheal multi-lumen airways
- C. Biphasic Positive Airway Pressure (BiPAP)/Continuous Positive Airway Pressure (CPAP)
- D. Needle chest decompression
- E. Percutaneous cricothyroidotomy
- F. End Tidal Carbon dioxide (ETCO₂) measurement/Capnography
- G. Naso/orogastric tube management
- H. Chest tube monitoring
- I. ETCO₂ monitoring
- J. Naso/orogastric tube insertion
- K. Oral and nasal endotracheal intubation
- L. Airway obstruction removal by direct laryngoscopy
- M. Pulse oximetry devices
- N. Difficult airway techniques
- O. Positive end expiratory pressure

II. Patient Assessment

- A. Scene management
- B. Leadership
- C. History
- D. Physical examination
- E. Field Impression
- F. Health screening and referrals
- G. Use of mechanical monitors
- H. Blood chemistry analysis

III. Communication

- A. Therapeutic communications
- B. Sensitivity to culture and diversity
- C. Documentation
- D. EMS system communications

IV. Pharmacologic Interventions

- A. Intravenous (IV) and Intraosseous insertion
- B. Enteral and parenteral administration of medications
- C. Administration techniques of medications
- D. Access indwelling catheters and implanted central IV ports
- E. Maintain infusion of blood or blood products
- F. Blood sampling
- G. Thrombolytic therapies
- H. Administer physician approved medications

V. Trauma Patient Care

- A. Rapid extrication techniques
- B. Trauma assessment
- C. Spinal motion restriction
- D. Splinting and bandaging
- E. Morgan lens
- F. Hemorrhage control
- G. Management of shock

VI. Simulated Patient Encounters - Trauma Patients

All topics are covered in the lecture and lab portions of the course.

Assignment:

Lecture- and Lab-Related Assignments:

1. Paramedic skills, such as:
 - A. Airway
 - B. Medication administration
 - C. Patient assessment
2. Individual projects, group projects, and scenarios, such as:
 - A. Patient Simulation
 - B. Equipment management
3. Patient care reports
4. Quizzes
5. Substantive psychomotor examinations
6. Title 22 state mandated attendance

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.

Patient care reports	Writing 5 - 10%
Problem Solving: Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.	
Individual projects, group projects, and scenarios	Problem solving 10 - 20%
Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams.	
Paramedic skills; psychomotor examinations	Skill Demonstrations 40 - 65%
Exams: All forms of formal testing, other than skill performance exams.	
Quizzes	Exams 5 - 10%
Other: Includes any assessment tools that do not logically fit into the above categories.	
Title 22 state mandated attendance; participation; affective behavior	Other Category 15 - 25%

Representative Textbooks and Materials:

Emergency Care in the Streets. 9th ed. American Academy of Orthopaedic Surgeons (AAOS).

