Emergency Procedures (EMSP 2237)

Credit
- 2 semester credit hours (1 hours lecture, 2 hour lab)

Prerequisite
- EMT-Basic certification

Co-requisite
- EMSP 2262
- EMSP 2243
- EMSP 1355
- EMSP 2430

Course Description
- Application of emergency medical procedures.
- Theory and skills necessary for the management of a cardiovascular emergency as specified by the American Heart Association (AHA) guidelines.
- Theory and skills necessary for the management of pediatric or neonatal emergencies.

Required Textbook and Materials
- EMS Program Student Handbook
- Paramedic Care Principles & Practice Volume 3 ISBN 13: 978-0-13-211235-2
- AHA Advanced Cardiac Life Support ISBN-13: 978-1616690106
- AHA Pediatric Advanced Life Support ISBN-13: 978-1616691127
- Stethoscope
- Pen light
- BP cuff

Course Objectives[1]
Upon completion of this course, the student will be able to:
- Integrate theory and skills mastered in other courses; and demonstrate comprehensive problem-solving techniques.
- Safely and effectively perform all psychomotor skills within the National EMS Scope of Practice Model and state scope of practice at the Paramedic level
- Manage a cardiovascular patient according to the American Heart Association (AHA) guidelines.

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[1] Curriculum based on the National EMS Education Standards set by the United States Department of Transportation (DOT).

- Manage a pediatric and a neonatal patient according to the American Heart Association (AHA) guidelines.
- Demonstrate a working knowledge of clinical information and related topics relevant to pediatric emergencies.
- Demonstrate the ability to completely and proficiently perform all applicable skills;
- Demonstrate attitudes and behavior consistent with the ethics and professionalism expected in pediatric specialties.

Course Outline

A. Welcome to LIT EMS Program
    1. Introduction of EMS Staff, Instructors and students
    2. EMS program policies

B. Advanced Level Psychomotor Examinations
    1. The psychomotor section of the examination process consists of twelve (17) separate skills presented in a scenario-type format to approximate the abilities of the Paramedic (NRP) to function in the out-of-hospital setting. All skills have been developed in accordance with the 2009 National EMS Education Standards and Instructional Guidelines for EMT and Paramedic, and current AHA guidelines.
        a. Bleeding Control/Shock Management
        b. Cardiac Arrest Management/AED
        c. Dynamic Cardiology
        d. Intravenous Therapy – Intravenous Bolus Medications
        e. Joint Immobilization
        f. Long Bone Immobilization
        g. Oral Station
        h. Patient Assessment – Medical
        i. Patient Assessment – Trauma
        j. Pediatric Intraosseous Infusion
        k. Pediatric Respiratory Compromise
        l. Pediatric Ventilatory Management
        m. Spinal immobilization (Seated Patient)
        n. Spinal Immobilization (Supine Patient)
        o. Static Cardiology
        p. Supraglottic Airway Device
        q. Ventilatory Management - Adult

C. Pediatric Advanced Life Support (PALS)
    1. Introduction to PALS
        a. PALS course Overview
        b. Overview of PALS science
    2. Start initial competency practice and testing
        a. CPR/AED practice and competency testing

        b.   Rhythm Disturbances/Electrical Therapy Skills
3.   Core Case Simulations (Cardiac)
        a.   Cardiac Cases 1 and 2
4.   Overview of Pediatric Assessment
        a.   Overview of Core Case Discussions and Simulations
5.   Core Case Simulations (Cardiac continued)
        a.   Cardiac cases 3 and 4
6.   Core Case Simulations (Respiratory)
        a.   Core Case Simulations Respiratory Cases 1 and 2
7.   Core Case Simulations (Respiratory Continued)
        a.   Core Case Simulations Respiratory Cases 3 and 4
8.   Core Case Simulations (Shock)
        a.   Core Case Simulations Shock Cases 1 and 2
9.   Core Case Simulations (Shock continued)
        a.   Core Case Simulations Shock Cases 3 and 4
10.   Putting it all together
        a.   Course summary and testing details
11.   PALS Written Test
        a.   Remediation (for those that score less than 84%).

D.   Advanced Cardiac Life Support
1.   Essentials of ACLS
        a.   Managing a cardiac arrest
        b.   Teamwork
2.   Adjuncts for Airway Control, Ventilation, and Oxygenation
        a.   Airway Management
        b.   Proper Ventilation techniques
        c.   Proper use of airway adjuncts
3.   Defibrillation
        a.   The defibrillation function
            a)   Indications
            b)   Contraindications
            c)   Power settings
            d)   Different Defibrillation Devices
            e)   Safety in defibrillation
        b.   Cardiac Pacing
            a)   Indications
            b)   Contraindications
            c)   Power Settings
            d)   Rhythm Capture
            e)   Precautions
        c.   Cardiovascular Pharmacology
            a)   The heart's reaction to the actions of medications
4.   Myocardial Infarction
        a.   Signs, Symptoms, and Treatment
        b.   Scenario Training for managing Cardiac Arrest

    5.   Special Resuscitation Situations
        a.   Resuscitation of the Pregnant patient
        b.   DNR Orders
    6.   Adjuncts for Artificial Circulation
    7.   Invasive Monitoring Techniques
    8.   Invasive Therapeutic Techniques
    9.   Cerebral Resuscitation: Treatment of the Brain after Cardiac Arrest
    10.   Ethical Aspects of CPR
    11.   ACLS Written Test
        a.   Remediation (for those that score less than 84%).

Grade Scale

90 – 100	A
84 – 89	B
75 – 83	C
70 – 74	D
0 – 69	F

Course Evaluation

Final grades will be calculated according to the following criteria:

Psychomotor Examinations	40%
PALS Examination	30%
ACLS Examination	30%

Course Requirements

- All class hours must be attended or make up hours documented, as required by the Texas Department of State Health Services.

- Maintain a 75% grade average in all EMS courses in order to receive a course completion certificate.

Course Policies

- See EMS Program Student handbook for specific course policies

Technical Requirements

For an online/hybrid course we recommend the following minimum technical requirements:

Operating System	Windows XP or Vista, MAC OS 10.4 or higher	
Processor	1 GHz or higher	
Memory	256 MB of RAM. If running Vista: 512 MB of RAM	
Hard Drive Space	500 MB free disk space	
Browsers	**Windows:** Supported: • Internet Explorer 6.0 • Internet Explorer 7.0 • Firefox 2.0 Unsupported Browsers**:** • Internet Explorer 8 • Firefox 3.0	**MAC 0S 10.4, 10.5:** Supported: • Safari 3.0 • Safari 3.1 • Firefox 2.0 Unsupported Browsers: • Safari 3.2 • Firefox 3.0
	NOTE: Cookies, Java, and JavaScript must be enabled. Pop-up blockers should be configured to permit new windows from LIT Click here to check your browser.	
Browser Plug-ins	In addition to the minimum system requirements needed to access Blackboard, you may also need additional browser plug-ins to view some of the content. Common plug-ins include: • Adobe Acrobat • Adobe Flash Player • Quicktime • Windows Media Player	
Internet Connection	Broadband (cable or DSL) connection required	
Additional Software	You should be running the most recent version of Java.	

Disabilities Statement

The Americans with Disabilities Act of 1992 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. Among other things, these statutes require that all students with documented disabilities be guaranteed a learning environment that provides for reasonable accommodations for their disabilities. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409) 880-1737 or visit the office in Student Services, Cecil Beeson Building.