



Patient Assessment and Airway Management (EMSP 1356)

Credit

- 3 semester credit hours (2 hours lecture, 2 hours lab)

Prerequisite

- EMT-Basic certification

Co-requisite

- EMSP 1171
- EMSP 1338
- EMSP 1355
- EMSP 2206
- EMSP 2260

Course Description

Knowledge and skills required to perform patient assessment, airway management, and artificial ventilation.

Required Textbook

- EMS Program Student Handbook
- Nancy Caroline's Emergency Care in the Streets 8th
 - ISBN 13: 9781284137187

Course Objectives¹

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

- Integrate scene and patient assessment findings with your knowledge of epidemiology and pathophysiology to form a field impression.
- Use clinical reasoning to develop a list of differential diagnoses, modify the assessment, and formulate a treatment plan.
- Integrate treatment/procedures needed to preserve life.
- Determine the chief complaint.
- Investigate the chief complaint.
- Integrate therapeutic communication techniques and adapt the line of inquiry based on findings and presentation.
- Perform a rapid full-body scan.
- Perform an assessment of vital signs.
- Obtain and use information from patient monitoring devices.
- Distinguish patients with critical life threats from those in serious condition and those with minimal, non-life-threatening injuries and or conditions.

¹ Curriculum based on Department of Transportation National Standard Curriculum

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- Identify the anatomy of the respiratory system, including the major structures of the upper and lower airway.
- Discuss the physiology of breathing, including ventilation, oxygenation, and respiration.
- Describe factors related to the pathophysiology of respiration, including ventilation-perfusion ratio mismatch, hypoventilation, hyperventilation, and circulatory compromise.
- Describe factors related to ventilation, including partial pressure and volume.
- Explain positive pressure ventilation versus negative pressure ventilation.
- Discuss acid/base imbalance, specifically respiratory acidosis and respiratory alkalosis.
- Discuss the methods for end-tidal carbon dioxide assessment, including its importance.
- Describe the indications, contraindications, and complications of using continuous positive airway pressure (CPAP).
- Describe the advantages, disadvantages, and equipment used when performing endotracheal intubation (ET).
- Discuss the indications and contraindications of orotracheal intubation.
- Describe the methods available for confirming correct ET tube placement and advantages and disadvantages of each method.
- Describe how to secure an ET tube.
- Discuss the indications, contraindications, advantages, disadvantages, and complications of nasotracheal intubation.
- Discuss the indications, contraindications, advantages, disadvantages, and complications of digital intubation.
- Discuss the indications, contraindications, advantages, disadvantage, and complications of transillumination intubation.
- Discuss the indications, contraindications, advantages, disadvantages, and complications of retrograde intubation.
- List possible pharmacologic adjuncts to airway management and ventilation, including both sedatives and neuromuscular blocking agents used for emergency intubation.
- Discuss the indications, contraindications, advantages, disadvantages and complications of laryngeal mask airway (LMA).
- Discuss the indications, contraindications, advantages, disadvantages and complications of King LT airway device.
- Discuss the indications, contraindications, advantages, disadvantages and complications of the esophageal tracheal Combitube.
- Discuss the indications, contraindications, advantages, disadvantages and complications of performing open cricothyrotomy.
- Discuss the indications, contraindications, advantages, disadvantages and complications of performing needle cricothyrotomy.

Course Outline

A. Patient Assessment

1. Introduction
2. Scene Size Up
3. Primary Survey
4. History Taking
5. Secondary Assessment
6. Reassessment

B. Critical Thinking and Clinical Decision Making

1. Cornerstones of Effective Paramedic Practice
2. The Range of Patient Conditions
3. Critical thinking and Clinical Decision Making
4. From theory to Practical Application
5. Taking to the Streets

C. Airway Management

1. Review of Airway Anatomy
2. Ventilation, Oxygenation, and Respiration
3. Pathophysiology of Respiration
4. Patient Assessment: Airway Evaluation
5. Quantifying Ventilation and Oxygenation
6. Airway Management
7. Suctioning
8. Airway Adjuncts
9. Airway Obstructions
10. Supplemental Oxygen Therapy
11. Ventilatory Support
12. Continuous Positive Airway Pressure
13. Gastric Distension
14. Special Patient Considerations
15. Advanced Airway Management
16. Pharmacologic Adjuncts to Airway Management and Ventilation
17. Alternative Advanced Airway Devices
18. Surgical and Nonsurgical Cricothyrotomy

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:

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|----------------------|-----|
| Affective Evaluation | 10% |
| Chapter Quiz | 20% |
| Module Exam | 20% |
| Mid-Term Exam | 25% |
| Final Exam | 25% |

Course Policies

1. Computers, telephones, headphones, and any other electronic devices must be turned off while in class or used only with permission of the instructor.
2. Do not bring children to class.
3. Late assignments will be accepted on a case by case basis.
4. Tests. Students that miss a test are not allowed to make up the test. Students that miss a test will receive a grade of '0'.
5. Attendance Policy. Three absences are allowed. If a student is tardy to class or departs early two (2) times, it will be equal to one (1) absence. Each absence beyond three absences will result in a 5 point deduction from your final grade.
6. If you wish to drop a course, the student is responsible for initiating and completing the drop process. If you stop coming to class and fail to drop the course, you will earn an 'F' in the course.
7. Additional class policies as defined by the EMS Program Student Handbook.

Technical Requirements (for courses using Blackboard)

The latest technical requirements, including hardware, compatible browsers, operating systems, software, Java, etc. can be found online at:

[https://help.blackboard.com/en-](https://help.blackboard.com/en-us/Learn/9.1)

[us/Learn/9.1](https://help.blackboard.com/en-us/Learn/9.1) 2014_04/Student/015_Browser_Support/015_Browser_Support_Policy

A functional broadband internet connection, such as DSL, cable, or WiFi is necessary to maximize the use of the online technology and resources.

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

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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. You may also visit the online resource at <http://www.lit.edu/depts/stuserv/special/defaults.aspx>

Student Code of Conduct Statement

It is the responsibility of all registered Lamar Institute of Technology students to access, read, understand and abide by all published policies, regulations, and procedures listed in the *LIT Catalog and Student Handbook*. The *LIT Catalog and Student Handbook* may be accessed at www.lit.edu or obtained in print upon request at the Student Services Office. Please note that the online version of the *LIT Catalog and Student Handbook* supersedes all other versions of the same document