

# Emergency Pharmacology (EMSP 2206) Lecture

## CREDIT

2 Semester Credit Hours (1 hours lecture, 3 hours lab)

## MODE OF INSTRUCTION

Face to Face

## PREREQUISITE/CO-REQUISITE:

EMT Basic or Advanced

EMSP 1356

EMSP 1338

EMSP 1355

EMSP 2444

## COURSE DESCRIPTION

A study of drug classifications, actions, therapeutic uses, adverse effects, routes of administration, and calculation of dosages.

## COURSE OBJECTIVES

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

1. Explain how pharmacology relates to paramedic clinical practice.
2. Describe the regulatory measures affecting medications administered in the prehospital setting.
3. Describe how drugs are classified.
4. List the components of a medication profile.
5. Discuss requirements for medication storage.
6. Describe the pharmacokinetic and pharmacodynamics properties of medications in general.
7. Identify situations in which medication effects will be altered by the age, sex, weight, and other characteristics of a particular patient.
8. Present steps to reduce the incidence of medication errors and limit the severity of harmful effects associated with medication administration.
9. Discuss the prevention, recognition, and management of adverse medication reactions.
10. Select the optimal medication and method of medication administration for patients with a particular clinical condition or situation.
11. Describe specific medications used by paramedics in the prehospital setting.
12. Describe the use of standard precautions related to medication administration.
13. List commonly used intravenous (IV) fluid compositions and types of IV solutions.
14. Discuss the techniques for performing IV therapy.
15. Discuss the techniques for performing medication administration via differing routes.
16. Explain the principles of drug dose calculations, including desired dose, concentration on hand, volume on hand, volume to administer, and IV drip-rate.



**LAMAR INSTITUTE  
OF TECHNOLOGY**

## **INSTRUCTOR CONTACT INFORMATION**

Instructor: Dustin Sites

Email: [dsites@lit.edu](mailto:dsites@lit.edu)

Office Phone: 409-247-4833

Office Location: MPC 254

Office Hours: Upon Request

## **REQUIRED TEXTBOOK AND MATERIALS**

EMS Program Student Handbook  
Nancy Caroline's Emergency Care in the Streets 9th  
ISBN: 9781284274004

Platinum Planner  
EMS Testing

Supplemental: Limmer Education Paramedic Pharmacology Review  
[www.lc-ready.com](http://www.lc-ready.com)

## **ATTENDANCE POLICY**

Attendance is mandatory. If a student is tardy (2) times it constitutes (1) absence. Greater than (3) absences throughout the semester may result in a deduction in (3) points or greater to your final grade and will be determined at the time of occurrence(s). Any anticipated absences must be reported to the instructor as soon as possible via email. An excused absence should be arranged prior to absence, when possible. When it is not possible to give prior notification, an unexcused absence will be recorded. To change classification of an unexcused absence to excused it will be on a case-by-case basis. Documentation for any excused absence will be required. **Additionally, students with perfect attendance will have (10) additional points added to lowest Mid Term or Final test grade. Students with (1) absence will be eligible for (9) points added to their lowest Mid Term or Final test grade.**

## **DROP POLICY**

If you wish to drop a course, you are 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.

**COURSE CALENDAR**

DATE	TOPIC	TESTS	ASSIGNMENTS
1/20	CPR / Drug Cards		
1/22	CPR / Drug Cards		Drug Cards
1/27	Principles of Pharmacology		Albuterol Amiodaron
1/29	Emergency Medications / SKILLS		Adenosine Atropine
2/03	Principles of Pharmacology		Dextrose Diazepam
2/05	Emergency Medications / SKILLS	Quiz 1	Diphenhydramine
2/10	Principles of Pharmacology		Epinephrine
2/12	Emergency Medications / SKILLS		Fentanyl
2/17	Principles of Pharmacology		Dopamine
2/19	Emergency Medications / SKILLS		Ipratropium bromide Lidocaine
2/24	Principles of Pharmacology		Lorazepam Magnesium sulfate
2/26	Emergency Medications / SKILLS	Quiz 2	Midazolam Morphine
3/03	Principles of Pharmacology		Naloxone
3/05	Emergency Medications / SKILLS		Oxygen Promethazine
3/10	Spring Break		
3/12	Spring Break		
3/17	Mid Term	MID TERM /A&A 1.	Sodium bicarb
3/19	Emergency Medications / SKILLS		Calcium Chloride
3/24	Medication Administration		Ketamine
3/26	Emergency Medications / SKILLS		Labetalol Metoprolol

3/31	Medication Administration		Etomidate
4/2	Emergency Medications / SKILLS	Quiz 3	Aspirin
4/7	Medication Administration		Activated Charcoal
4/9	Emergency Medications / SKILLS		Thiamine
4/14	Medication Administration		Lasix
4/16	Emergency Medications / SKILLS		procainamide
4/21	Medication Administration		Nitro
4/23	Emergency Medications / SKILLS	Quiz 4	Glucagon
4/28	PHTLS		Levophed
4/30	PHTLS		Tylenol
5/5	Medication Administration		
5/7	Emergency Medications / SKILLS		
5/12	FINAL	FINAL / A&A 2.	

### **COURSE EVALUATION**

Final grades will be calculated according to the following criteria:

Chapter Quiz/Test	30%
Mid-Term Exam	20%
Final Exam	20%
Affective Evaluation	15%
Core Assignment	15%

### **GRADE SCALE**

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

## **TECHNICAL REQUIREMENTS**

For the latest technical requirements, including hardware, compatible browsers, operating systems, etc., review the Minimum Computer and Equipment Requirements on the [LIT Online Experience](#) page. A functional broadband internet connection, such as DSL, cable, or WiFi is necessary to maximize the use of online technology and resources.

## **DISABILITIES STATEMENT**

The Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. LIT provides reasonable accommodations as defined in the Rehabilitation Act of 1973, Section 504 and the Americans with Disabilities Act of 1990, to students with a diagnosed disability. The Special Populations Office is located in the Eagles' Nest Room 129 and helps foster a supportive and inclusive educational environment by maintaining partnerships with faculty and staff, as well as promoting awareness among all members of the Lamar Institute of Technology community. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409)-951-5708 or email [specialpopulations@lit.edu](mailto:specialpopulations@lit.edu). You may also visit the online resource at [Special Populations - Lamar Institute of Technology \(lit.edu\)](#).

## **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](http://www.lit.edu). Please note that the online version of the *LIT Catalog and Student Handbook* supersedes all other versions of the same document.

## **STARFISH**

Lamar Institute of Technology (LIT) recognizes the recent advances in Artificial Intelligence (AI), such as ChatGPT, have changed the landscape of many career disciplines and will impact many students in and out of the classroom. To prepare students for their selected careers, LIT desires to guide students in the ethical use of these technologies and incorporate AI into classroom instruction and assignments appropriately. Appropriate use of these technologies is at the discretion of the instructor. Students are reminded that all submitted work must be their own

original work unless otherwise specified. Students should contact their instructor with any questions as to the acceptable use of AI/ChatGPT in their courses.

#### **ADDITIONAL COURSE POLICIES/INFORMATION**

1. No food, drinks, or use of tobacco products in class. Do not order from a food delivery service and have food and drink delivered to class outside of lunchtime hours.
2. Computers, telephones, headphones, and any other electronic devices may not be utilized while in class or used only with permission of the instructor. If a call is received and needs to be taken, please step out of the classroom and return promptly.
3. Do not bring children to class.
4. No late assignments will be accepted. If an assignment is late, please contact the instructor immediately.
5. Students that miss a test are not allowed to make up for the test. Students that miss a test will receive a grade of '0'. Mid Term and Final exams are proctored and will begin promptly at the time assigned. Unless prior arranged students will not be allowed to enter late and begin a Mid Term or Final and a grade of '0' will be received.
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 EMS Program Student Handbook.
8. Uniforms including authorized pants with black belt, black boots and a red polo tucked in and void of logos will be always worn while in class and attending a clinical. Refusal to comply with this policy may result in a reduction of grade points and or removal from class or clinical.
9. The Core Assignment is outlined in blackboard.