

# Inver Hills Community College

## EMS 1150: Pharmacology for the Advanced EMT

### A. COURSE DESCRIPTION

Credits: 1

Lecture Hours/Week: 1

Lab Hours/Week: 0

OJT Hours/Week: \*.\*

Prerequisites:

EMS 1101 - Emergency Medical Technician

Corequisites: None

MnTC Goals: None

Introduces basic and advanced concepts in pharmacology including pharmacodynamics and pharmacokinetics, alpha receptors, beta receptors, biotransformation and elimination. This introductory course will also focus on administration methodologies as well as drug calculation. Actual pharmacology included will focus on medications approved for the Advanced EMT such as nitroglycerin and albuterol.

Prerequisites: EMS 1101 or equivalent; EMS 1130 or Concurrent

**B. COURSE EFFECTIVE DATES:** 08/27/2012 - Present

### C. OUTLINE OF MAJOR CONTENT AREAS

1. Introduction to pharmacology - 5%
2. Cardiac pharmacology 10%
3. Central nervous system pharmacology- 10%
4. Commonly prescribed medications 5%
5. Dosage calculation - 15%
6. Parasympathetic pharmacology - 10%
7. Pharmacodynamics and pharmacokinetics - 15 %
8. Pharmacology of the endocrine system 10%
9. Respiratory system pharmacology 10%
10. Sympathetic pharmacology - 10%

### D. LEARNING OUTCOMES (General)

1. Discuss pharmacokinetics and pharmacodynamics of drugs used in the prehospital setting
2. Discuss the relationship of pharmacologic substances and the central nervous system, respiratory system, cardiac system and endocrine system
3. Recognize commonly prescribed medications and the associated medical conditions for which they are prescribed
4. Perform drug dosage calculations quickly and effectively
5. Appreciate the role of the sympathetic and parasympathetic medications

### E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None

### F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

**G. SPECIAL INFORMATION**

None noted