



El Camino College

COURSE OUTLINE OF RECORD - Official

I. GENERAL COURSE INFORMATION

Subject and Number: Fire and Emergency Technology 132
Descriptive Title: Prehospital Care Pharmacology

Course Disciplines: Emergency Medical Technologies

Division: Industry and Technology

Catalog Description: This course provides an introduction to the study of drugs and their ongoing nature and effect on living tissue. A study of the various drugs that are available to the prehospital care technician is presented along with medication administration techniques. An introduction to intravenous (IV) therapy and drug therapy is covered.

Conditions of Enrollment: Enrollment Limitation

Admission to Paramedical Technician program

Course Length: Full Term Other (Specify number of weeks): 13
Hours Lecture: 2.00 hours per week TBA
Hours Laboratory: 1.00 hours per week TBA
Course Units: 1.50

Grading Method: Letter
Credit Status: Associate Degree Credit

Transfer CSU: No
Transfer UC: No

General Education:

El Camino College: _____

CSU GE: _____

IGETC: _____

II. OUTCOMES AND OBJECTIVES

A. COURSE STUDENT LEARNING OUTCOMES (The course student learning outcomes are listed below, along with a representative assessment method for each. Student learning outcomes are not subject to review, revision or approval by the College Curriculum Committee)

1. SLO #1 Drugs ROUTES FOR SELECTED DRUGS Students completing this course will be able to successfully choose the routes by which selected drugs can be administrated.
2. SLO #2 PHARMACOLOGY Students at the end of this course will be able to identify pertinent drug therapy and the actions, interactions and adverse effects of drugs.
3. SLO #3 IV THERAPY Students will be able to locate proper IV sites and perform IV techniques in a skills demonstration.

The above SLOs were the most recent available SLOs at the time of course review. For the most current SLO statements, visit the El Camino College SLO webpage at <http://www.elcamino.edu/academics/slo/>.

B. Course Student Learning Objectives (The major learning objective for students enrolled in this course are listed below, along with a representative assessment method for each)

1. Collect the information necessary to calculate the appropriate drug dosage.
Quizzes
2. Examine the factors which may influence the effects of a drug or drug(s) on the human body.
Oral exams
3. Choose the appropriate route(s) by which drugs can be administered.
Performance exams
4. Select the appropriate intravenous solution approved for use by Paramedics within Los Angeles County.
Performance exams
5. Compare and contrast both venipuncture and intravenous medication administration techniques.
Oral exams
6. Identify the patient's "Five Rights" of drugs administration. Explain why they are important for patient care.
Performance exams

III. OUTLINE OF SUBJECT MATTER (Topics are detailed enough to enable a qualified instructor to determine the major areas that should be covered as well as ensure consistency from instructor to instructor and semester to semester.)

Lecture or Lab	Approximate Hours	Topic Number	Major Topic
Lecture	9	I	INTRODUCTION TO PHARMACOLOGY A. Definitions B. Drug effects C. Legal authorities D. Routes for drug administration E. "Five Rights" F. Regulatory agencies G. Administering medications
Lab	6	II	INTRODUCTION TO DRUG THERAPY

			<ul style="list-style-type: none"> A. Intravenous (IV) solutions B. IV solution checks C. Complications of IV therapy D. IV equipment E. IV Push/Bolus (IVP) / IV Piggyback (IVPB) saline lock F. Venipuncture and intravenous medication techniques
Lecture	2	III	EQUIVALENTS AND CONVERSIONS <ul style="list-style-type: none"> A. Identify abbreviations B. Calculating drug dosages C. Use of formulas D. Flow rate
Lab	1	IV	EQUIVALENTS AND CONVERSIONS <ul style="list-style-type: none"> A. Identify abbreviations B. Calculating drug dosages C. Use of formulas D. Flow rate
Lecture	15	V	DRUG REVIEW <ul style="list-style-type: none"> A. Review of paramedic drugs B. Effects of paramedic drugs
Lab	6	VI	MEDICATION ADMINISTRATION TECHNIQUES <ul style="list-style-type: none"> A. Intramuscular (IM) B. Subcutaneous (SQ) C. Sublingual (S)
Total Lecture Hours		26	
Total Laboratory Hours		13	
Total Hours		39	

IV. PRIMARY METHOD OF EVALUATION AND SAMPLE ASSIGNMENTS

A. PRIMARY METHOD OF EVALUATION:

Problem solving demonstrations (computational or non-computational)

B. TYPICAL ASSIGNMENT USING PRIMARY METHOD OF EVALUATION:

In a classroom setting, using the appropriate formula, calculate the flow rate of an IV solution. Document the results on a one-page report.

C. COLLEGE-LEVEL CRITICAL THINKING ASSIGNMENTS:

1. In a classroom setting, after PowerPoint presentations, explain to the instructor the meaning of the terms "IV push/bolus" and "IV piggyback". Compare

and contrast their uses in the field.

2. In a classroom setting, after PowerPoint presentations, describe to the instructor the effects of each of the following drug classifications. Compare their uses on a patient in the field.

- a. Analgesic drug
- b. Cathartic drug
- c. Narcotic drug
- d. Vasodilator drug

D. OTHER TYPICAL ASSESSMENT AND EVALUATION METHODS:

Performance exams

Objective Exams

Quizzes

Class Performance

Homework Problems

Multiple Choice

Completion

Matching Items

True/False

Other (specify):

Simulations

V. INSTRUCTIONAL METHODS

Demonstration

Discussion

Group Activities

Guest Speakers

Lecture

Role Play

Simulation

Note: In compliance with Board Policies 1600 and 3410, Title 5 California Code of Regulations, the Rehabilitation Act of 1973, and Sections 504 and 508 of the Americans with Disabilities Act, instruction delivery shall provide access, full inclusion, and effective communication for students with disabilities.

VI. WORK OUTSIDE OF CLASS

Study

Answer questions
 Skill practice
 Required reading
 Problem solving activities
 Written work

Estimated Independent Study Hours per Week: 4

VII. TEXTS AND MATERIALS

A. UP-TO-DATE REPRESENTATIVE TEXTBOOKS

The County of Los Angeles. ADVANCED PREHOSPITAL CARE CURRICULUM.
 Department of Health Services, 2004.
 Qualifier Text: INDUSTRY STANDARD,
 Andrew Pollack, Bob Elling, Mike Smith . Nancy Caroline's EMERGENCY CARE IN
 THE STREETS. 7th ed. American Academy of Orthopedic Surgeons, 2013.

B. ALTERNATIVE TEXTBOOKS

C. REQUIRED SUPPLEMENTARY READINGS

D. OTHER REQUIRED MATERIALS

VIII. CONDITIONS OF ENROLLMENT

A. Requisites (Course and Non-Course Prerequisites and Corequisites)

Requisites	Category and Justification
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B. Requisite Skills

Requisite Skills

C. Recommended Preparations (Course and Non-Course)

Recommended Preparation	Category and Justification
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D. Recommended Skills

Recommended Skills

E. Enrollment Limitations

Enrollment Limitations and Category	Enrollment Limitations Impact
Admission to Paramedical Technician program	

Course created by Craig Neumann on 02/01/1994.

BOARD APPROVAL DATE: 05/16/1994

LAST BOARD APPROVAL DATE: 01/23/2017

Last Reviewed and/or Revised by Kevin Huben on 09/30/2016