



El Camino College
COURSE OUTLINE OF RECORD – Official

Course Acronym:	FTEC
Course Number:	132
Descriptive Title:	Prehospital Care Pharmacology
Division:	Health Sciences and Athletics
Department:	Fire and Emergency Technology
Course Disciplines:	Emergency Medical Technologies
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.
Prerequisite:	
Co-requisite:	
Recommended Preparation:	
Enrollment Limitation:	Admission to Paramedical Technician Program
Hours Lecture (per week):	1.44
Hours Laboratory (per week):	.72
Outside Study Hours:	2.88
Total Course Hours:	39
Course Units:	1.5
Grading Method:	Letter Grade only
Credit Status:	Credit, degree applicable
Transfer CSU:	No
Effective Date:	
Transfer UC:	No
Effective Date:	
General Education:	
ECC	
Term:	
Other:	
CSU GE:	
Term:	
Other:	
IGETC:	
Term:	
Other:	
CalGETC:	

Term:	
Other:	
Student Learning Outcomes:	SLO #1 Routes for Selected Drugs Students completing this course will be able to successfully choose the routes by which selected drugs can be administered. 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. SLO #3 IV Therapy Students will be able to locate proper IV sites and perform IV techniques in a skills demonstration.
Course Objectives:	1. Collect the information necessary to calculate the appropriate drug dosage. 2. Examine the factors which may influence the effects of a drug or drug(s) on the human body. 3. Choose the appropriate route(s) by which drugs can be administered. 4. Select the appropriate intravenous solution approved for use by Paramedics within Los Angeles County. 5. Compare and contrast both venipuncture and intravenous medication administration techniques. 6. Identify the patient's "Five Rights" of drugs administration. Explain why they are important for patient care.
Major Topics:	I. INTRODUCTION TO PHARMACOLOGY (9 hours, lecture) A. Definitions B. Drug effects C. Legal authorities D. Routes for drug administration E. "Five Rights" F. Regulatory agencies G. Administering medications II. INTRODUCTION TO DRUG THERAPY (6 hours, lab) 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 III. EQUIVALENTS AND CONVERSIONS (2 hours, lecture) A. Identify abbreviations B. Calculating drug dosages C. Use of formulas D. Flow rate IV. EQUIVALENTS AND CONVERSIONS (1 hour, lab) A. Identify abbreviations B. Calculating drug dosages C. Use of formulas D. Flow rate V. DRUG REVIEW (15 hours, lecture) A. Review of paramedic drugs B. Effects of paramedic drugs

	VI. MEDICATION ADMINISTRATION TECHNIQUES (6 hours, lab) A. Intramuscular (IM) B. Subcutaneous (SQ) C. Sublingual (S)
Total Lecture Hours:	26
Total Laboratory Hours:	13
Total Hours:	39
A.1. Primary Methods of Evaluation (Part 1 - CCN courses only):	
A.2. Primary Method of Evaluation (Part 2 - all courses; choose one):	3) Skills demonstration
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.
Critical Thinking Assignment 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.
Critical Thinking Assignment 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
Other Evaluation Methods:	Class Performance, Completion, Homework Problems, Matching Items, Multiple Choice, Objective Exam, Performance Exams, Quizzes, True/False
Instructional Methods:	Demonstration, Discussion, Group Activities, Guest Speakers, Lecture, Role play/simulation
If other:	
Work Outside of Class:	Answer questions, Problem solving activity, Required reading, Skill practice, Study, Written work (such as essay/composition/report/analysis/research)
If Other:	
Up-To-Date Representative Texts:	The County of Los Angeles. <u>ADVANCED PREHOSPITAL CARE CURRICULUM</u> . Department of Health Services, 2004. Qualifier Text: INDUSTRY STANDARD, Andrew Pollack, Bob Elling, Mike Smith. <u>Nancy Caroline's EMERGENCY CARE IN THE STREETS</u> . 9th ed. American Academy of Orthopedic Surgeons, 2022.
Alternative Texts:	
Required Supplementary Readings:	
Other Required Materials:	
Requisite:	

Category:	
Requisite course(s): List both prerequisites and corequisites in this box.	
Requisite and Matching skill(s): Bold the requisite skill. List the corresponding course objective under each skill(s).	
Requisite Skill:	
Requisite Skill and Matching Skill(s): Bold the requisite skill(s). If applicable	
Requisite course:	
Requisite and Matching skill(s): Bold the requisite skill. List the corresponding course objective under each skill(s).	
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Requisite Skill and Matching skill(s): Bold the requisite skill. List the corresponding course objective under each skill(s). If applicable	
Enrollment Limitations and Category:	Admission to Paramedical Technician Program
Enrollment Limitations Impact:	
Course Created by:	Craig Neumann
Date:	02/01/1994
Original Board Approval Date:	05/16/1994
Last Reviewed and/or Revised by:	Kevin Huben
Date:	03/07/2025
Last Board Approval Date:	06/26/2025
Effective Term:	FA 2026