PHARM 151 Course Outline as of Spring 2002

CATALOG INFORMATION

Dept and Nbr: PHARM 151 Title: PHARM FUNDAMENTALS Full Title: Pharmaceutical Fundamentals Last Reviewed: 9/24/2018

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	3.00	Lecture Scheduled	3.00	17.5	Lecture Scheduled	52.50
Minimum	3.00	Lab Scheduled	0	17.5	Lab Scheduled	0
		Contact DHR	0		Contact DHR	0
		Contact Total	3.00		Contact Total	52.50
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 105.00

Total Student Learning Hours: 157.50

Title 5 Category:	AA Degree Applicable
Grading:	Grade Only
Repeatability:	00 - Two Repeats if Grade was D, F, NC, or NP
Also Listed As:	
Formerly:	

Catalog Description:

An introduction to pharmacological principles as they are related to and support an understanding of rational drug usage. Course includes a discussion of the profound influence of drug laws, standards, and regulations in the state of California.

Prerequisites/Corequisites:

Course Completion or Current Enrollment in PHARM 150 OR Course Completion of HLC 299.39

Recommended Preparation: Eligibility for ENGL 100 or ESL 100.

Limits on Enrollment:

Schedule of Classes Information:

Description: Introduction to pharmacological principles relating to and supporting an understanding of rational drug use, including a discussion of the profound influence of drug laws, standards, and regulations within California. (Grade Only) Prerequisites/Corequisites: Course Completion or Current Enrollment in PHARM 150 OR Course Completion of HLC 299.39

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree: CSU GE:	Area Transfer Area	Effective: Effective:	Inactive: Inactive:
IGETC:	Transfer Area	Effective:	Inactive:
CSU Transfer	Effective:	Inactive:	
UC Transfer:	Effective:	Inactive:	

CID:

Certificate/Major Applicable:

Certificate Applicable Course

COURSE CONTENT

Outcomes and Objectives:

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

- 1. Differentiate among drugs that are natural products, semi-synthetic, or synthetic.
- 2. Pharmacologically classify a drug after having been presented with its generic name, brand (trade) name and chemical name.
- 3. Classify whether a drug is used as a preventative, curative, restorative, or disease process limiting agent.
- 4. Interpret the graphical presentation of the dose-response relationship, potency, and efficacy.
- 5. Explain the dynamics involved in the process of absorption, distribution, biotransformation, and elimination of drugs from the body.
- 6. Explain the term 'adverse effects'.
- 7. Give examples of various drug interactions, and effectively use a drug interactions chart.
- 8. Evaluate the potential for risk versus the benefit of a drug that is being used as a therapeutic agent.
- 9. Identify differences in physiological states that can affect drug response, including patient age, weight, disease states, and genetic factors.
- 10. Describe the five pregnancy risk categories.
- 11. Interpret current federal and state legislation and name the agencies regulating the practice of pharmacy.
- 12. Describe methods of record keeping, dispensing, and inventory of controlled substances.
- 13. Apply all schedules of controlled substances.
- 14. Explain methods of transferring controlled substances between

registrants.

- 15. Verify a DEA number.
- 16. Explain the roles of acute and non-acute care systems in delivering pharmaceutical care.
- 17. Define Investigational drugs and Orphan drugs and discuss laws pertaining to each.

Topics and Scope:

- I. What is a drug?
 - A. Definition
 - B. Sources of drugs: natural, semi-synthetic, synthetic
 - C. Nomenclature: brand name, generic name, chemical name, organic name, official name, synonyms, acronyms, and combination drugs
 - D. Uses of drugs: therapeutic, palliative, diagnostic, prophylactic, replacement therapy, pre-surgery
- II. Drug biotransformation
 - A. Absorption
 - B. Availability and distribution
 - C. Elimination
 - D. Dose-response relation
 - E. Potency and Efficacy
- III. Drug description Terminology
 - A. Therapeutic effect
 - B. Pregnancy risk category
 - C. Indications and Contra-indications
 - D. Adverse effects
 - E. Hypersensitivity and Idiosyncrasies
 - F. Dependence
 - G. Dosage
 - H. Administration
 - I. Patient education
 - J. Precautions
 - K. Toxic effect
 - L. Drug interactions and use of the drug interaction chart
- IV. Assessment of therapeutic use versus risks in drug therapy
- V. Factors altering the usual effects of a drug
 - A. Weight, age, gender
 - B. Normal physiologic state-diurnal rhythm
 - C. Pathological state
 - D. Genetics
 - E. Allergy and environment
 - F. Psychology-placebo effect
- VI. Five Rights of Medication
- VII. Legislation regarding pharmacy practices
 - A. Federal laws and agencies
 - 1. Federal Food Drug and Cosmetic Act
 - 2. Controlled Substances Act
 - 3. Hazardous Substances Labeling Act
 - 4. Poison Prevention Packaging Act
 - 5. Drug Enforcement Agency

- 6. JCAHO
- B. State laws and regulations
 - 1. California Pharmacy Law with Regulations
 - 2. Uniform Controlled Substances Act
 - 3. Sherman Food Drug and Cosmetic Law
 - 4. California Hazardous Substances Act
 - 5. California State Board of Pharmacy
 - 6. Department of Consumer Affairs
- C. Controlled Substances
 - 1. Schedule I, II, III, IV, and V- general requirements and types of drugs.
 - 2. Filling Schedule II prescriptions
 - 3. Filling Schedule III, IV, and V prescriptions
 - 4. Methods of transfer of Schedule II drugs among registrants
 - 5. Execution of Form 222
 - 6. Transfer of Schedule III, IV, and V drugs among registrants
 - 7. DEA number and confirmation of authenticity using formula
 - 8. OTC drugs and Legend drugs including receiving, storage, inventory and sale
 - 9. The Orphan Drug Law
 - 10. Definition of illicit drugs

Assignment:

- 1. Develop case studies.
- 2. Develop scenarios and analyze in class.
- 3. Answer designated questions at the end of each chapter.

Methods of Evaluation/Basis of Grade:

Writing: Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

Written homework

Problem Solving: Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

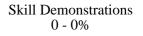
None

Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

None

Exams: All forms of formal testing, other than skill performance exams.

Problem solving	
0 - 0%	



Exams		
50 -	60%	

Other: Includes any assessment tools that do not logically fit into the above categories.

None

Other Category 0 - 0%

Representative Textbooks and Materials:

California Pharmacists Association. Pharmacy Certified Technician (Training Manual, Calculations Workbook, and California Law Supplement), Lansing: Michigan Pharmacists Association, 1994.