El Camino College

COURSE OUTLINE OF RECORD - Launched

I. GENERAL COURSE INFORMATION

Subject and Number: Nursing 224
Descriptive Title: Nursing Pharmacology

Course Disciplines: Nursing

Division: Health Sciences and Athletics

Catalog Description: This course provides instruction from basic to advanced concepts and principles of pharmacology for nursing students. The knowledge and intervention needed to maximize therapeutic effects and prevent or minimize adverse effects of drugs will be emphasized. Major content areas will include advanced pharmacological principles, major drug classification, selected individual drugs, drug effects on body tissues, human responses to drug therapy, and the application of the nursing process. Anatomy, physiology, and microbiology concepts will be correlated with various pathologies, emphasizing the effects of drug therapy on body systems. Students will learn how to develop and present patient teaching plans. Legal and ethical issues will also be discussed.

Conditions of Enrollment:

Prerequisite

Nursing 143
AND

Nursing 144
AND

Nursing 146
with a minimum grade of C in all prerequisites

Enrollment Limitation

Students must be admitted into the Nursing Program

Course Length: [X] Full Term [ ] Other (Specify number of weeks):
Hours Lecture: 3.00 hours per week [ ] TBA
Hours Laboratory: hours per week [ ] TBA
Course Units: 3.00

Grading Method: Letter
Credit Status Associate Degree Credit

Transfer CSU: [X] **Effective Date: Proposed**
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. **Principles of Pharmacology** - The student will apply principles of pharmacology to drug therapy, using a systematic approach and the nursing process for the purpose of administering pharmacological agents based on safe and accurate nursing practice.
2. **Drug Teaching Plan** - The student will develop and implement a teaching plan of a specific drug.
3. **Legal Frameworks** - The student will describe the legal, ethical and regulatory frameworks utilized in the administration of medications.

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. Apply principles of pharmacology to drug therapy.
   Multiple Choice
2. Apply a systematic approach when studying drug therapy, with emphasis on therapeutic classification and prototypical drugs.
   Class Performance
3. Compare and contrast the characteristics of major drug groups and selected individual drugs as they correlate to various pathologies.
   Multiple Choice
4. Analyze a patient's response to drug therapy.
   Multiple Choice
5. Apply the nursing process to patients receiving one or more therapeutic drugs.
   Multiple Choice
6. Apply principles of therapy with major drug groups in relation to drug selections, dosage, route and use in selected populations.
   Multiple Choice
7. Analyze clinically significant drug-drug, drug dosage, and drug-nutrient interactions.
   Multiple Choice
8. Examine major issues and concerns in drug therapy.

Class Performance

9. Analyze legal, ethical, and economic aspects of drug therapy.

   Multiple Choice

10. Formulate teaching plans regarding the use of over-the-counter and prescription drugs.

    Written homework

11. Examine the nurse's role in relation to drug therapy and health teaching.

    Class Performance

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	6	I	**Pharmacology Basics** A. Pharmacological principles B. Lifespan considerations C. Cultural, legal, and ethical considerations D. Medication errors 1. Preventing 2. Responding E. Patient education and drug therapy F. Over-the-counter drugs and herbal/dietary supplements G. Gene therapy and pharmacogenomics
Lecture	6	II	**Drugs Affecting The Central Nervous System** A. Analgesic Drugs B. General and local anesthetics C. Depressants and muscle relaxants D. Stimulants and related drugs E. Antiepileptic and antiparkinson drugs
Lecture	3	III	**Drugs Affecting Mental Health** A. Psychotherapuetic drugs B. Substance abuse
Lecture	3	IV	**Drugs affecting the autonomic Nervous System** A. Adrenergic drugs B. Adrenergic-blocking drug drugs C. Cholinergic drugs D. Cholinergic-blocking drugs
Lecture	9	V	**Drugs Affecting the Cardiovascular Systems** A. Antihypertensive drugs B. Antianginal drugs C. Heart failure drugs D. Antidysrhythmic drugs E. Coagulation modifier drugs F. Antilipemic drugs
Lecture	2	VI	**Drugs Affecting The Renal Systems** A. Diuretic drugs B. Fluids and electrolytes
Lecture	3	VII	**Drugs Affecting The Endocrine and Reproductive Systems** A. Pituitary drugs

			B. Thyroid and antithyroid drugs C. Antidiabetic drugs D. Adrenal drugs E. Women's health drugs F. Men's health drugs
Lecture	3	VIII	**Drugs Affecting The Respiratory System** A. Antihistamines, decongestants, antitussives, and expectorants B. Respiratory drugs
Lecture	3	IX	**Anti-Infective Drugs** A. Antibiotics B. Antiviral drugs C. Antitubercular drugs D. Antifungal drugs E. Antimalarial, antiprotozoal, and anthelmintic drugs
Lecture	2	X	**Antiinflammatory drugs** A. Antiinflammatory drugs B. Antigout drugs
Lecture	4	XI	**Chemotherapeutic Drugs** A. Antineoplastic drugs 1. Cancer overview and cell cycle-specific drugs 2. Cell cycle-nonspecific drugs and miscellaneous drugs
Lecture	2	XII	**Biologic and Immune Modifiers** A. Biologic response - modifying and antirheumatic drugs B. Immunosuppressant drugs C. Immunizing drugs
Lecture	2	XIII	**Drugs Affecting Nutrition** A. Vitamins and minerals B. Anemia drugs C. Nutritional supplements
Lecture	3	XIV	**Other Drugs** A. Dermatologic drugs B. Ophthalmic drugs C. Otic drugs
Lecture	3	XV	**Drugs Affecting the Gastrointestinal System** A. Acid-controlling drugs B. Bowel disorder drugs C. Antiemetic drugs D. Antinausea
Total Lecture Hours		54	
Total Laboratory Hours		0	
Total Hours		54	

IV. PRIMARY METHOD OF EVALUATION AND SAMPLE ASSIGNMENTS

A. **PRIMARY METHOD OF EVALUATION:**

Substantial writing assignments

B. **TYPICAL ASSIGNMENT USING PRIMARY METHOD OF EVALUATION:**

In a two- to three-page paper, compare and contrast the pharmacological treatments appropriate to diabetes mellitus. Outline the nurse's responsibilities in the administration of these medications. Determine the expected outcomes and formulate a patient health teaching plan.

C. **COLLEGE-LEVEL CRITICAL THINKING ASSIGNMENTS:**

1. In a group, formulate a written teaching plan outlining the medications used to treat a patient taking an antimicrobial agent. Give a five minute oral presentation of your plan that includes the signs and symptoms requiring this treatment, as well as the nurse's role regarding treatment, prevention, and health teaching.
2. Each week in class, students are assigned in a group and will give a five-minute oral presentationbased on an assigned case study of a specific drug classification analyzing the implications of drug effects and interactions on the nursing care of the patient. Cite acceptable drug resources correlating the principles of anatomy, physiology, and microbiology in your presentation.

D. **OTHER TYPICAL ASSESSMENT AND EVALUATION METHODS:**

Objective Exams
Quizzes
Class Performance
Homework Problems
Multiple Choice
Matching Items
Presentation

V. INSTRUCTIONAL METHODS

Discussion
Group Activities
Lecture
Multimedia presentations
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
Required reading
Problem solving activities

Estimated Independent Study Hours per Week: 6

VII. TEXTS AND MATERIALS

A. **UP-TO-DATE REPRESENTATIVE TEXTBOOKS**
Karch, A.M.. Focus on Nursing Pharmacology. 6th ed. Philadelphia:Lippincott, 2013.
Deglin, J., Vallerund, A.H. . Davis's Drug Guide for Nurses. 12th ed. Philadelphia: F.A. Davis, 2011.
Pickar, G., Abernethy, A.. Dosage Calculations. 9th ed. Cengage Learning, 2013.

B. **ALTERNATIVE TEXTBOOKS**

C. **REQUIRED SUPPLEMENTARY READINGS**
ATI Materials

D. **OTHER REQUIRED MATERIALS**

VIII. CONDITIONS OF ENROLLMENT

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

Requisites	Category and Justification
Course Prerequisite Nursing-143 AND	Sequential
Course Prerequisite Nursing-144 AND	Sequential
Course Prerequisite Nursing-146	Sequential

B. Requisite Skills

Requisite Skills
Students preparing to enter the nursing field need to understand the dynamic aspects of the professional nurse in a variety of settings, the role of patient advocate and nursing process in health care. NURS 143 - Identify the nurse's role and responsibilities in communication with patient's across the lifespan while considering the patient's cultural and developmental attributes. NURS 143 - Demonstrate critical thinking with the application of initial conversion and mathematical skills in computing drug dosages. NURS 143 - Evaluate how the evidence-based practice impacts biophysical outcomes in patient care. NURS 143 - Use steps of the nursing process to understand the nursing care plan. NURS 143 - Utilize standards of critical thinking to determine adequacy of data collection for the development of a nursing care plan.
Students must demonstrate the ability to calculate safe oral and parental drug dosages according to the six rights of medication administration. NURS 144 -

Demonstrate the application of mathematical concepts when calculating oral and parenteral drug dosages for adults. NURS 144 - Convert metric, apothecary, and household measurements from one system to another. NURS 144 - Carefully interpret medication labels and medication administration records to safely administer drug dosages utilizing the six rights of medication administration. NURS 144 - Calculate reconstitution of injectable and non-injectable drugs and select the correct syringe and calibrated medical equipment necessary to safely administer these medications. NURS 144 - Demonstrate the ability to calculate safe oral and parenteral drug dosages for pediatric patients. NURS 144 - Demonstrate the ability to safely prepare and administer accurately calculated medication dosages in a simulated clinical environment.
The students must demonstrate competency performing health assessments to demonstrate and identify normal versus common abnormal findings for biophysical body structures and functions. NURS 146 - Gather data for a biophysical health history from an adult client. NURS 146 - Identify common abnormal biophysical findings and evaluate the impact on an adult client. NURS 146 - Compare and contrast normal and common abnormal findings for the biophysical body structures and systems. NURS 146 - Identify the steps in the nursing process and demonstrate how to use it in a client's history and physical. NURS 146 - Document normal and abnormal findings and complete basic history and physical examination of all the body systems using correct terminology. NURS 146 - Analyze and evaluate the findings from health and physical examinations utilizing the nursing process and critical thinking skills. NURS 146 - Perform a physical assessment from head to toe utilizing the appropriate equipment and medical terminology.

C. Recommended Preparations (Course and Non-Course)

Recommended Preparation	Category and Justification

D. Recommended Skills

Recommended Skills

E. Enrollment Limitations

Enrollment Limitations and Category	Enrollment Limitations Impact
Students must be admitted into the Nursing Program	

Course created on 05/14/2018.

BOARD APPROVAL DATE: 07/16/2018

LAST BOARD APPROVAL DATE:

Last Reviewed and/or Revised by Eliza Rivera-Mitu on 05/14/2018

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