

Prepared by the Department of Health Sciences
Date of Departmental Approval: February 13, 2012
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Effective: Fall 2012

1. **Course Number:** HEA200
Course Title: Pharmacology
2. **Description:** This course addresses the interaction between substances used as drugs and human body systems. Knowledge of natural sciences, pharmacokinetics, and pharmacodynamics between chemical entities and receptors, and pharmacological concepts of administration, dosage and patient safety are stressed. Emphasis is placed upon mechanisms of action, side effects, and drug interactions.
3. **Student Learning Outcomes:** Upon successful completion of this course, students are able to do the following:
 - Discuss the mechanism of action of selected drugs.
 - Discuss adverse reactions and effects of certain drugs.
 - Identify contraindications and interactions of selected classes of drugs.
 - Discuss the basic principles of pharmacokinetics and pharmacodynamics as well as the pathophysiology of selected diseases.
 - Discuss the health care implications of the drug classes involved.
 - Apply knowledge of the above principles to selected clinical patient care problems.
 - Apply knowledge of legal principles to selected clinical patient care problems.
4. **Credits:** 3 credits
5. **Satisfies General Education Requirement:** No
6. **Prerequisite:** Accepted into Nursing Program. **Co-requisites:** NUR107 and BIO108 or permission of the instructor
7. **Semesters Offered:** Fall, Spring, Summer
8. **Suggested General Guidelines for Evaluation:** Students are graded on the basis of four written examinations to be given at roughly quarterly intervals throughout the course and a final examination. Grades are assigned according to the guidelines of the particular departments involved.
9. **General Topical Outline (Optional):**
 - Definitions, Standards, Legislation, Names, Preparations
 - Mechanisms of Drug Action/
Pharmacokinetics
 - Adverse Drug Responses/
Pharmacodynamics
 - Peripheral NS drugs/ Autonomic NS/
Physiology review
 - Cholinergics and Cholinergic Blockers
 - Adrenergics and Adrenergic Blockers
 - CNS drugs and Parkinson's disease drugs
 - Drugs for Epilepsy and Muscle Spasm
 - Headache drugs and other Analgesics
 - Local and General Anesthetics
 - Opioid Analgesics and Antagonists
 - Antipsychotics/ Antidepressants
 - Bipolar disorder drugs and Benzodiazepines
 - CNS Stimulants/ drugs for other Psych. Disorders
 - Drug Abuse Considerations
 - Diuretics
 - Ionic content/Volume and Midterm Review
 - Cardiovascular drugs and Renin Angiotensin System drugs
 - Calcium Channel Blockers & Vasodilators
 - Antihypertensive/ Antianginal Drugs
 - Cardiac drugs, Digitalis and related drugs
 - Antidysrhythmic drugs and Anti-Lipid drugs