

**NR 203 Course Outline as of Fall 2023****CATALOG INFORMATION**

Dept and Nbr: NR 203 Title: FUND PHARM FOR NURSING  
 Full Title: Fundamental Pharmacology for Nursing  
 Last Reviewed: 2/12/2018

Units	Course Hours per Week		Nbr of Weeks		Course Hours Total	
Maximum	2.00	Lecture Scheduled	2.00	17.5	Lecture Scheduled	35.00
Minimum	2.00	Lab Scheduled	0	8	Lab Scheduled	0
		Contact DHR	0		Contact DHR	0
		Contact Total	2.00		Contact Total	35.00
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 70.00

Total Student Learning Hours: 105.00

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:**

This course is designed to support the novice nursing students' understanding of drugs commonly used in institutional health care settings. Emphasis is placed on fundamental processes that determine drugs' actions on the body. Drugs are studied in terms of the body systems they affect, their therapeutic benefits and their possible adverse effects. Mechanisms of action of groups/classifications of drugs are emphasized. Special concerns related to geriatric patients are a focus of study.

**Prerequisites/Corequisites:**

Course Completion of PHYSIO 1 OR PHYSIO 58

**Recommended Preparation:**

Eligibility for ENGL 100 or ESL 100

**Limits on Enrollment:****Schedule of Classes Information:**

Description: This course is designed to support the novice nursing students' understanding of drugs commonly used in institutional health care settings. Emphasis is placed on fundamental processes that determine drugs' actions on the body. Drugs are studied in terms of the body

systems they affect, their therapeutic benefits and their possible adverse effects. Mechanisms of action of groups/classifications of drugs are emphasized. Special concerns related to geriatric patients are a focus of study. (Grade Only)

Prerequisites/Corequisites: Course Completion of PHYSIO 1 OR PHYSIO 58

Recommended: Eligibility for ENGL 100 or ESL 100

Limits on Enrollment:

Transfer Credit:

Repeatability: Two Repeats if Grade was D, F, NC, or NP

## **ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:**

<b>AS Degree:</b>	<b>Area</b>	Effective:	Inactive:
<b>CSU GE:</b>	<b>Transfer Area</b>	Effective:	Inactive:

<b>IGETC:</b>	<b>Transfer Area</b>	Effective:	Inactive:
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<b>CSU Transfer:</b>	Effective:	Inactive:
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<b>UC Transfer:</b>	Effective:	Inactive:
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**CID:**

**Certificate/Major Applicable:**

Both Certificate and Major Applicable

## **COURSE CONTENT**

**Student Learning Outcomes:**

At the conclusion of this course, the student should be able to:

1. Use knowledge of classes of drugs to predict their therapeutic and adverse effects.
2. Recognize patient-specific and situation-specific contraindications to the administration of specific medications.

**Objectives:**

Upon completion of this course students will be able to:

1. Correlate drug doses and dosing intervals to drugs' pharmacokinetic and pharmacodynamics properties.
2. Explain reasons for dose reduction and/or avoidance of selective drugs in geriatric populations.
3. Describe effects of endogenous autonomic nervous system [ANS] neurotransmitters on selected body organs.
4. Predict possible therapeutic and adverse effects of drugs based on their agonist or antagonist effects on ANS receptors.
5. Describe mechanisms by which anti-inflammatory agents and analgesics relieve inflammation and pain.
6. Discuss nurses' role in maintaining safe dosage levels of anti-inflammatory agents and analgesics.
7. Use fingerstick blood glucose logs, glycosylated hemoglobin levels and pharmacokinetics curves of insulins to predict probable drug effects.
8. Differentiate classifications and actions of oral and non-insulin injectable antidiabetic medications.
9. Discuss rationales for the use of bronchodilators and anti-inflammatory agents in the treatment

of lower respiratory disease.

10. Explain appropriate situations for the use of antiemetics, antidiarrheals and laxatives.

11. Discuss mechanisms of action, side effects and adverse effects of drug groups commonly used for disorders of the eye and ear.

### Topics and Scope:

I. Pharmacokinetics, Pharmacodynamics and Mechanisms of Drug Actions

II. Geriatric Pharmacology

III. Anti-Inflammatory and Analgesic Drugs

IV. Autonomic Nervous System Drugs

A. Adrenergic agonists and antagonists

B. Cholinergic agonists and antagonists

V. Cardiovascular Drugs

A. Antihypertensives

B. Drugs for coronary artery disease and heart failure

C. Diuretics and lipid-lowering agents

VI. Diabetes Drugs

A. Insulins

B. Non-insulin antidiabetic agents

VII. Drugs for Lower Respiratory Disorders

VIII. Drugs for Gastrointestinal Disorders

IX. Eye and Ear Drugs

### Assignment:

1. Reading 15-20 pages per week

2. Quizzes (12 - 14)

3. Two to three midterms, one final

4. Responses to critical thinking questions (1 set per week)

5. Participation forums (12-15 per semester)

### 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.

None, This is a degree applicable course but assessment tools based on writing are not included because problem solving assessments are more appropriate for this course.

Writing  
0 - 0%

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

Critical thinking questions

Problem solving  
15 - 25%

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

None

Skill Demonstrations  
0 - 0%

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

Quizzes, midterms and final exam

Exams  
65 - 75%

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

Class attendance and participation forums

Other Category  
10 - 15%

**Representative Textbooks and Materials:**

Pharmacology: A Nursing Approach. 9th ed. McCuiston, Linda and Vuljoin-DiMaggio, Kathleen and Winton, Mary. Elsevier. 2018  
A Nursing drug handbook. Current edition.  
Instructor prepared materials.