BERGEN COMMUNITY COLLEGE

THE DIVISION OF HEALTH PROFESSIONS

DEPARTMENT OF NURSING

NUR 182

LEVEL I

PHARMACOLOGY FOR NURSES

COURSE OUTLINE

1 CREDIT

LECTURE: 50 minutes PER WEEK

FOR USE DURING THE FALL 2016 and SPRING 2017 SEMESTERS ONLY
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ALL POLICIES AND COURSE REQUIREMENTS ARE SUBJECT TO REVISION ON A SEMESTER BY SEMESTER BASIS. STUDENTS WILL BE NOTIFIED OF ANY REVISION(S) AT THE BEGINNING OF THE SEMESTER IN WHICH THE POLICY OR REQUIREMENTS IS/ARE TO BE IMPLEMENTED DURING THE FIRST MEETING OF THE APPROPRIATE NURSING CLASS.
**COURSE DESCRIPTION**

NUR-182, Pharmacology for Nurses is a Level I course which introduces the student to the drug classification system. Students will learn basic actions and side effects of drugs and drug regulations. Mathematical calculations necessary to the practice of nursing are acquired through a self-learning module followed by practice in class. Students must achieve a score of 80% or higher on a medication calculations test in order to pass this course.

1 lec. 1 credit
PREREQUISITE: Admission to the Department

**COURSE LEARNING OUTCOMES**

1. Utilizes the nursing process in the administration of drugs and solutions for the improvement of the health of individuals.

2. Adapts medication administration according to the growth and developmental capacities of individuals.

3. Discusses actions, side effects, and nursing implications of drugs and solutions when administering care to individuals.

4. Incorporates biological, psychological, sociological, cultural, spiritual, and economic factors related to the administration of drugs and solutions.

5. Accepts responsibility for maintaining current knowledge of drugs and solutions.

6. Complies with the legal and ethical regulations for medication administration.

7. Adapts to technological means for safe administration of drugs and solutions.

8.Uses critical thinking as the basis for safe administration of drugs and solutions.

9. Passes the Level I Pharmacological Math Computation Exam (PMCE) with a score of 80% or higher.

10. Teaches clients, groups, and families about medications.
COURSE EVALUATION

1. There will be 3 tests encompassing theory only, which will equal 90% of the grade.

2. There will be 4 unannounced quizzes which will equal 10 % of the grade. Quizzes will be given at the start of the class. Only 5 minutes will be allowed for completion of the quiz. Any student arriving after the start of the quiz will not be permitted to take the quiz and will receive a “0” for that quiz. Quizzes may not be made up.

3. A passing course grade requires a numerical theory grade of 78% or greater.

GRADING SYSTEM

A = 89.45 – 100
B+ = 85.45 – 89.44
B = 81.45 – 85.44
C+ = 77.45 – 81.44
C – 73.45 – 77.44
D – 69.45 – 73.44
F - 69.44 and below

Please note: In order to pass the course you must receive a minimum of a C+

REQUIRED TEXTS


### Theoretical Content

#### Unit 1 – Introduction to Nursing Pharmacology

A) Introduction to Drug Action
B) Effects of drugs on the body
C) Drug Interactions & Over-the-Counter Drugs
D) Pharmacological Principles & Legislation
E) Lifespan Considerations Drugs and Geriatrics Population
F) Use of Herbs

Nursing implications with the use of herbs

#### Unit 2 - Math and Dosage Calculations

A) Systems of Measurement
   - Metric system
   - Household system
   - Converting within and between systems
   - Conversions related to weight

B) Methods of Calculations
   - Using the Ratio/Proportion Method
   - Using the Formula Method
   - Using the Dimensional Analysis Method

C) Oral, Parenteral, Insulin, and Heparin Dosage Calculations

D) IV Therapy
   - Calculation of Drops/minute
   - Calculation of ml’s/hour

### Teaching/Learning Activities

- Computer Assisted Instruction (CAI) Rooms HP-220, Library
- CAI: Basic Principles of Pharmacology
  - Kee, Chapter 1, 2, 3, 4, 7
  - Kee, Chapter 8
  - Kee, Chapter 6
  - Kee, Chapter 12
  - Kee, Chapter 10
  - Kee Chapter 14
  - Math Module

- Gray, Chapter 6
- Gray, Chapter 7
- Gray, Chapter 8
- Gray, Chapter 9
- Gray, Chapter 14
- Gray, Chapter 15
- Gray, Chapter 16
- Gray, Chapter 17
- Gray, Chapter 18
- Gray, Chapter 20

- Gray, Chapters 22, 23

**CAI:**
- Giving Oral Medication Safely
- Medical Administration 1
- Medical Administration 2
- Eliminating Medication Errors-S354/B307
- Safe Administration of Medications
Unit 3 – Antiinfective/Antibacterial Agents

   (Hazards) ...........................................  
A) Penicillins, Cephalosporins  
B) Macrolides, Tetracyclines, Aminoglycosides, Fluoroquinolones  
C) Sulfonamides/UTI Drugs  
D) Drug Classification  
   • Drug Action  
   • Treatment uses  
   • Side effects and Nursing Considerations  
E) Antiviral/Retroviral  
   Antitubercular  
   • Drug Action  
   • Treatment uses  
   • Side effects and Nursing Considerations  
F) Antifungal  
   • Drug Action  
   • Treatment uses  
   • Side effects and Nursing Considerations  
G) Colony Stimulating Factors

Kee, Chapters 29 -35

Unit 4 – Digestive System (Food)/ Urinary System Agents

A) Acid-controlling agents  
B) Antidiarrheals and laxatives  
C) Antiemetic and Antinausea Agents  
D) Drug Classification  
   • Drug Action  
   • Treatment uses  
   • Side effects and Nursing Considerations

Kee, Chapters 34, 43, 47, 48

Unit 5 – Respiratory System Agents (Air)

A) Upper Respiratory Drugs...............................  
B) Lower Respiratory Drugs...............................  
C) Drug Classification  
   • Drug Action  
   • Treatment uses  
   Side effects and Nursing Considerations

Kee, Chapter 40

Kee, Chapter 41

Unit 6 – Cardiovascular Agents (Water)

A) Drugs for Cardiac disorders, Cardiac Glycosides, Antianginals, Antidyssrhythmics..........................  
B) Antihypertensive agents and Diuretics...........  
C) Circulatory disorder agents, drugs affecting blood coagulation.............................................  
   Lipid-lowering agents.................................  
D) Colony Stimulating Factors  
E) Drug Classification  
   • Drug Action  
   • Treatment uses

Kee, Chapter 42

Kee, Chapters 43, 44

Kee, Chapter 45

Kee, Chapter 46

Kee, Chapter 39

Kee, Chapter 39 (specific sections)
Unit 7 – Nervous System Agents (Hazards)

A) Autonomic Nervous System Agents
   - Sympathetic Nervous System
     - Adrenergic and Adrenergic Blocker Drugs
     - Parasympathetic
     - Cholinergic and Anticholinergic Drugs, How they affect the body
   
   B) Analgesics-opioid and nonopioid, and Antiinflammatory agents
     - Drug Classification
     - Drug Action
     - Treatment uses
     - Side effects and Nursing Considerations
   
   C) Anxiolytic and Hypnotic agents
     - Drug Classification
     - Drug Action
     - Treatment uses
     - Side effects and Nursing Considerations
   
   D) Antidepressant agents
     - Drug Classification
     - Drug Action
     - Treatment uses
     - Side effects and Nursing Considerations
   
   E) Psychotherapeutic agents and CNS stimulants and depressants
     - Drug Classification
     - Drug Action
     - Treatment uses
     - Side effects and Nursing Considerations
   
   F) Anticonvulsant agents
     - Drug Classification
     - Drug Action
     - Treatment uses
     - Side effects and Nursing Considerations
   
   G) Drugs for Neurological disorders
     - Drug Classification
     - Drug Action
     - Treatment uses
     - Side effects and Nursing Considerations
Unit 8 – Hormonal Agents (Hazards, Normalcy)
Antidiabetic drugs: Oral Antidiabetic agents and all Insulins
- Drug Classification
- Drug Action
- Treatment uses
- Side effects and Nursing Considerations

Kee, Chapter 52

Unit 9 – Ophthalmic and Otic Agents (Hazards)
- Drug Classification
- Drug Action
- Treatment uses
- Side effects and Nursing Considerations

Kee, Chapter 49

Self – Learning module on Moodle