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 2015 and SPRING 2016 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. There will be a Pharmacological Math Computation Exam (PMCE). The passing score will be 80%. Students who fail to demonstrate proficiency on the first administered pharmacology test in the course will be permitted two opportunities to take a similar test as a re-take within the confines of this course. A student who does not demonstrate an acceptable level of proficiency (80%) by the second computation re-take will receive an "F" for the course. A basic calculator may be used during the PMCE.

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

GRADING SYSTEM

A  =  92.5 - 100
B+ = 87.5 - 92.4
B  = 82.5 - 87.4
C+ = 77.5 - 82.4
C  = 72.5 - 77.4
D  = 67.5 - 72.4
F  = 67.4 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 B-306 & B-307, 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

Hazard) ........................................................................................................ Kee, Chapters 29 -35
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

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

Kee, Chapters 34, 43, 47, 48
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

Unit 5 – Respiratory System Agents (Air)

Kee, Chapters 40, 41
A) Upper Respiratory Drugs
B) Lower Respiratory Drugs
C) Drug Classification
   • Drug Action
   • Treatment uses
   • Side effects and Nursing Considerations

Unit 6 – Cardiovascular Agents (Water)

Kee, Chapter 42
A) Drugs for Cardiac disorders, Cardiac Glycosides, Antianginals,
   Antidysrhythmics
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 43, 44
Kee, Chapter 45
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

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

Kee, Chapter 52
Self – Learning module on Moodle