



**SCIENCE & HEALTH  
PROFESSIONS**

**NURSING PROGRAM**

**NUR 151  
COURSE OUTLINE**

**FALL 2008**



## COURSE OUTLINE

**Course Number:** NUR 151

**Course Title:** Pharmacology in Nursing

**Credits:** 3

**Hours:** 3 lecture hours/week x 15 weeks

**Catalog description:**

This course presents pharmacology as an integrated aspect of nursing practice. Emphasis is placed on information necessary for safe administration of medications, current drug therapies for common medical conditions, and current information necessary to ensure safe nursing practice in the area of pharmacologic interventions.

**Prerequisites:** NUR 112 or instructor permission

**Corequisites:** None

**Required texts/other materials:**

Lilley, L. L., Harrington, S., and Synder, J.S. (2005), *Pharmacology and the Nursing Process*. (5th ed.)  
St. Louis, MO: Elsevier Mosby.

Lilley, L.L. Harrington, S., and Synder, J.S. (2005), *Pharmacology and the Nursing Process*, (5<sup>th</sup> ed.)  
Workbook.

**Last revised:** 7/2008

**Course faculty:** Karen Ruffin RN MSN Ed.– Coordinator  
Donna Penn, RN, MSN, CNE  
Barbara Kunkel, RN, MSN

**Information resources:** Textbook, library sources

**Course goals:**

*At the end of this course the student will be able to:*

- Describe the nurse's role in the safe administration of pharmacologic agents.
- Identify common drug classifications used in the therapeutic management of common conditions affecting body systems.
- Recognize the potential for adverse interactions among medications, foods, herbal and diet supplement therapies.

*Units of Study in Detail*

**NUR 151 COURSE SCHEDULE**

| <b>WK</b> | <b>OBJECTIVE(S)</b>  | <b>TOPIC</b>   | <b>RECOMMENDED READING(S)</b>   |
|-----------|--|--|---|
| 1         | <ul style="list-style-type: none"> <li>● Apply the function and purposes of the nursing process as related to drug therapy.</li> <li>● Demonstrate understanding of the role of pharmacokinetics and pharmacodynamics in medications administration.</li> <li>● Apply the influence of age on the effects of medications for a client.</li> <li>● Relate the ethical aspects of drug administration and the nurse's role.</li> <li>● Demonstrate the importance of client education in the administration of medications.</li> <li>● Apply correct techniques for medication administration.</li> </ul>  | <p>Foundations of Pharmacology</p><br><p>The Nurse's Role in Medication Administration</p> | <p>Lilley Chapters- 1-5</p><br><p>Study Guide – Chapter 1-5</p>                   |
| 2         | <ul style="list-style-type: none"> <li>● Review the sympathetic nervous system as related to drug therapy with adrenergic agents.</li> <li>● Discuss the nurse's role in assessment of the effects of adrenergic agonists, adrenergic antagonists, and cholinergic agents.</li> <li>● Compare and contrast the difference between an opioid agonist, agonist-antagonist, and antagonist.</li> <li>● Demonstrate how the nursing process is applied to clients receiving sedative-hypnotic agents.</li> <li>● Identify the role of the nurse in promoting client compliance with drug therapy for seizure activity.</li> <li>● Identify the variety of conditions and disorders being treated with CNS stimulants.</li> </ul> | <p>Autonomic and Central Nervous System Drugs</p>  | <p>Lilley Chapters- 10-13, 16-19</p><br><p>Study Guide- Chapters 10-13, 16-19</p> |

| <b>WK</b> | <b>OBJECTIVE(S)</b>  | <b>TOPIC</b>  | <b>RECOMMENDED READING(S)</b>                                 |
|-----------|--|---|---|
| 3         | <ul style="list-style-type: none"> <li>• Discuss the pathophysiology related to Parkinson's disease.</li> <li>• Compare and contrast the different classes of medications used in the treatment of Parkinson's disease including the first and second line drugs used in therapy.</li> <li>• Analyze the mechanisms of action, dosage forms, routes of administration, cautions, contraindications, drug interactions, adverse effects, patient tolerance, toxicity and patient education with the use of antiparkinsonian drugs.</li> <li>• Break down the function of cholinergic receptors with contrast of stimulation versus blocking of these receptors.</li> <li>• Identify the role of the nurse in assessment of the effects of cholinergic blocking drugs and the different drugs.</li> <li>• Identify the mechanisms of action, dosage forms, routes of administration, cautions, contraindications, drug interactions, adverse effects, patient tolerance, toxicity and patient education with the use of Cholinergic blocking drugs.</li> </ul> | <p>Antiparkinsonian Drug Therapy</p> <p>Cholinergic Blocking Drug Therapy</p> | <p>Lilley-Chapters 14 and 20</p> <p>Study Guide-14 and 20</p> |

| WK | OBJECTIVE(S)   | TOPIC   | RECOMMENDED READING(S)                             |
|----|--|---|--|
| 4  | <ul style="list-style-type: none"> <li>• Comprehends the normal actions and functions of the pancreas.</li> <li>• Compare and contrast the contrast between type one and type two diabetes mellitus with regard to age of onset, signs and symptoms, pharmacologic and non-pharmacologic treatment incidence and etiology.</li> <li>• Identify the mechanisms of action, dosage forms, routes of administration, cautions, contraindications, drug interactions, adverse effects, patient tolerance, various categories of insulin and the various types of oral hypoglycemic drugs, and patient education.</li> <li>• Develop education and plan of care using the nursing process for this population of clients.</li> </ul> | <p>Diabetic Drug Therapy</p> <p><b>Exam #1 Tuesday September 16</b></p> | <p>Lilley Chapter- 31</p> <p>Study Guide- 31</p>   |
| 5  | <ul style="list-style-type: none"> <li>• Compare and contrast the various drugs in the following classes of psychotherapeutic agents: antianxiety agents, antidepressants, antimanic agents and antipsychotics.</li> <li>• Identify the mechanism of action, indication, therapeutic effects, adverse effects, toxic effects, drug interactions, contraindications, and cautions associated with various psychotherapeutic drugs.</li> <li>• Develop a nursing plan of care that includes all phases of the nursing process related to administration of psychotherapeutics.</li> <li>• Develop client education for this population of clients.</li> </ul>  | <p>Psychotherapeutic Drug Therapy</p>                                   | <p>Lilley – Chapter 15</p> <p>Study Guide – 15</p> |





| WK | OBJECTIVE(S)   | TOPIC   | RECOMMENDED READING(S)                                   |
|----|--|---|--|
|    | <ul style="list-style-type: none"> <li>• Identify diseases that are treated with toxoids and vaccines.</li> <li>• Discuss the purpose of antineoplastic and biologic response modifiers in the treatment of neoplasms.</li> <li>• Develop an educational plan and a plan of care for this population of clients.</li> </ul>  |   |  |
| 11 | <ul style="list-style-type: none"> <li>• Identify the mechanisms of actions and indications for the use of antihistamines, decongestants, antitussives, and expectorants.</li> <li>• Identify classes and specific agents used in the treatment of lower respiratory tract disease.</li> <li>• Discuss the general principles of antibiotic therapy.</li> <li>• Discuss how they rid the body of infection.</li> <li>• Discuss the pros and cons of antibiotic use with the attention to over use or abuse of antibiotics and the development of drug resistance.</li> <li>• Describe the various antibiotics and the classifications of them.</li> <li>• Describe effects of the immune system with attention to various types of immunity.</li> <li>• Discuss the process of immunosuppression in patients with viral infections, specifically those with HIV.</li> <li>• Discuss the stages of AIDS and the various drugs used to manage the illness.</li> <li>• Identify the first and second line drugs indicated for the treatment of TB.</li> </ul> | Respiratory System Drugs<br>Antibiotic Drug Therapy<br>Antitubercular Drug Therapy<br>Antiviral Drug Therapy<br><br><b>Exam #3 Tuesday November 4</b> | Lilley Chapters- 35-38, 40<br><br>Study Guide- 35-38, 40 |
| 12 | <ul style="list-style-type: none"> <li>• Identify the teaching needs of clients receiving antifungal medications.</li> <li>• Identify the indications for use of antimalarial, antiprotozoal, and antihelminthic agents.</li> <li>• Differentiate between disinfectants and antiseptics.</li> </ul>  | Antibiotic Drug Therapy<br><br>Antitubercular Drug Therapy<br><br>Antifungal Drug Therapy   | Lilley – Chapters 39-44<br><br>Study Guide- 39-44        |

| WK | OBJECTIVE(S)   | TOPIC  | RECOMMENDED READING(S)   |
|----|--|--|--|
| 13 | <ul style="list-style-type: none"> <li>• Discuss the pathophysiology of myocardial ischemia and the subsequent experience of angina.</li> <li>• Discuss the various factors that may precipitate angina and measures to decrease that occurrence.</li> <li>• Discuss the differences in the major classes of antianginal drugs with regard to their mechanisms of action, dosage forms, routes of administration, cautions, contraindications, drug interactions, adverse effects, patient tolerance, toxicity and patient education.</li> </ul>   | Antianginal Drug Therapy<br><br>Diuretic Drug Therapy<br><br>Anticoagulation Drug Therapy<br>Antilipemic Drug Therapy<br><br>Antihypertensive Drug Therapy<br><br><b>Exam #4 Tuesday November 25</b> | Lilley Chapters- 23, 24, 25, 27, and 28<br><br>Study Guide- 23, 24, 25, 27, and 28 |
| 14 | <ul style="list-style-type: none"> <li>• Discuss and define hypertension, with comparison of primary and secondary hypertension and their related manifestations.</li> <li>• Discuss the protocol for treating hypertension.</li> <li>• Discuss the most recent guidelines; compare the various drugs used in the pharmacologic management of hypertension with regard to mechanism of action, specific indications, adverse effects, toxic effects, cautions contraindications, dosages, and routes of administration.</li> <li>• Discuss the normal anatomy of the renal system.</li> <li>• Discuss the impact of the renal system on hypertension.</li> </ul> |  |  |
| 15 | <ul style="list-style-type: none"> <li>• Discuss how diuretics work in the renal system.</li> <li>• Discuss indications for the use of diuretic therapy.</li> <li>• Identify the indications for and contraindications to the use of coagulation modifiers.</li> <li>• Discuss the administration procedures, laboratory test, and diet modifications for the various coagulation modifiers.</li> </ul>  |  |  |

| WK | OBJECTIVE(S)   | TOPIC | RECOMMENDED READING(S) |
|----|--|-------|------------------------|
|    | <ul style="list-style-type: none"> <li>• Identify the various antilipemic agents commonly used to treat hyperlipidemia.</li> </ul> |       |                        |
|    | <b>Review and Final Exam</b>   |       |                        |

## Evaluation of Student Learning:

### Course Requirements:

1. Unit Exams - 4
2. Final Exam

### Grading

Unit Exams ..... 75%

Final Exam.....25%

### GRADING

|           |                    |
|-----------|--------------------|
| <b>A</b>  | <b>97-100</b>      |
| <b>A-</b> | <b>93-96</b>       |
| <b>B+</b> | <b>89-92</b>       |
| <b>B</b>  | <b>85-88</b>       |
| <b>B-</b> | <b>81-84</b>       |
| <b>C+</b> | <b>78-80</b>       |
| <b>C</b>  | <b>75-77</b>       |
| <b>D</b>  | <b>61-74</b>       |
| <b>F</b>  | <b>60 or below</b> |

### Academic Integrity Statement:

#### **ACADEMIC INTEGRITY**

#### **OMB 210**

Mercer County Community College is committed to Academic Integrity -- the honest, fair and continuing pursuit of knowledge, free from fraud or deception. This implies that students are expected to be responsible for their own work, and that faculty and academic support services staff members will take reasonable precautions to prevent the opportunity for academic dishonesty.

The college recognizes the following general categories of violations of Academic Integrity, with representative examples of each. Academic Integrity is violated whenever a student:

#### **A. Uses or obtains unauthorized assistance in any academic work.**

- copying from another student's exam.
- using notes, books, electronic devices or other aids of any kind during an exam when prohibited.
- stealing an exam or possessing a stolen copy of an exam.

#### **B. Gives fraudulent assistance to another student.**

- completing a graded academic activity or taking an exam for someone else.
- giving answers to or sharing answers with another student before, during or after an exam or other graded academic activity.
- sharing answers during an exam by using a system of signals.

#### **C. Knowingly represents the work of others as his/her own, or represents previously completed academic work as current.**

- submitting a paper or other academic work for credit which includes words, ideas, data or creative work of others without acknowledging the source.
- using another author's words without enclosing them in quotation marks, without paraphrasing them or without citing the source appropriately.
- presenting another individual's work as one's own.
- submitting the same paper or academic assignment to another class without the permission of the instructor.

**D. Fabricates data in support of an academic assignment.**

- falsifying bibliographic entries.
- submitting any academic assignment which contains falsified or fabricated data or results.

**E. Inappropriately or unethically uses technological means to gain academic advantage.**

- inappropriately or unethically acquiring material via the Internet or by any other means.
- using any electronic or hidden devices for communication during an exam.

Each instructor and academic support service area is authorized to establish specific guidelines consistent with this policy.

**CONSEQUENCES FOR VIOLATIONS OF ACADEMIC INTEGRITY**

For a single violation, the faculty member will determine the course of action to be followed. This may include assigning a lower grade on the assignment, assigning a lower final course grade, failing the student in the course, or other penalty appropriate to the violation.

In all cases, the instructor shall notify the Chair of the Academic Integrity Committee of the violation and the penalty imposed.

When two (or more) violations of academic integrity are reported on a student, the Academic Integrity Committee (AIC) may impose disciplinary penalties beyond those imposed by the course instructors. The student shall have the right to a hearing before the AIC or a designated AIC subcommittee.

**APPEALS**

The student has a right to appeal the decision of the instructor or the Academic Integrity Committee. Judicial procedures governing violations of Academic Integrity are contained in the Student Handbook.

Approved by the MCCC Board of Trustees March 18, 2004