



**SCIENCE & HEALTH  
PROFESSIONS**

**NURSING PROGRAM**

**NUR 151  
COURSE OUTLINE**

**SUMMER 2008**



## COURSE OUTLINE

**Course Number:** NUR 151

**Course Title:** Pharmacology in Nursing

**Credits:** 3

**Hours:** 4 lecture hours/week x 11 weeks (summer offering)

**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:** 5/2008

**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.



WK	OBJECTIVE(S)	TOPIC	RECOMMENDED READING(S)
3	<ul style="list-style-type: none"> <li>• Discuss the pathophysiology related to Parkinson's disease.</li> <li>• Identify 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>• Discuss 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>• Discuss the function of cholinergic receptors with contrast of stimulation versus blocking of these receptors.</li> <li>• Discuss the role in assessment of the effects of cholinergic blocking drugs and the different drugs.</li> <li>• Discuss 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> <li>• Identify the various drugs in the following classes of psychotherapeutic agents: antianxiety agents, antidepressants, antimanic agents, and antipsychotics.</li> <li>• Discuss the mechanism of action, indication, therapeutic effects, adverse effects, toxic effects, drug interactions, contraindications, and cautions associated with various psychotherapeutic drugs.</li> <li>• Discuss and describe the variety of disorders affecting women's health and the drugs used to treat these disorders.</li> </ul>	<p>Antiparkinsonian Drug Therapy</p> <p>Cholinergic Blocking Drug Therapy</p> <p><b>Exam # 1 on Thursday June 12</b></p> <p>Psychotherapeutic Drug Therapy</p>	<p>Lilley-Chapters 14, 15 and 20</p> <p>Study Guide-14, 15, and 20</p>

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4	<ul style="list-style-type: none"> <li>• Discuss the rationale for the various treatments involving estrogen, progesterone, uterine motility altering drugs, alendronate and other drugs related to women's health, with indications, adverse effects, cautions, contraindications, drug interactions, dosages and routes of administration.</li> <li>• Compare the various men's health drugs with discussion of their rationale for use, dosage forms.</li> <li>• Discuss and describe the mechanisms of action, dosage, adverse effects, cautions, contraindications, drug interactions, and routes of administration for the various men.</li> </ul>	Men's and Women's Health	<p>Lilley Chapter – 33 &amp; 34</p> <p>Study Guide – 33 &amp; 34</p>

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5	<ul style="list-style-type: none"> <li>• Discuss the differences between inotropic, chronotropic, and dromotropic terms.</li> <li>• Discuss and describe the effects of cardiac glycosides and other positive inotropic drugs on the failing and or diseased heart.</li> <li>• Discuss rapid versus slow digitalization including nursing consideration, food interactions, and laboratory test.</li> <li>• Identify significant drugs, laboratory tests, and food interactions associated with positive inotropic agents.</li> <li>• Compare and discuss the various dysrhythmias with regard to their basic characteristics, the impact on the structure of the heart and related symptoms.</li> <li>• Identify the various classes of antidysrhythmic agents as determined by their mechanism of action.</li> </ul>	<p>Inotropic Drug Therapy</p> <p>Antidysrhythmic Drug Therapy</p>	<p>Lilley Chapters- 21 and 22</p> <p>Study Guide- 21 and 22</p>
6	<ul style="list-style-type: none"> <li>• Discuss the normal actions and functions of the pancreas.</li> <li>• Discuss 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>• Discuss 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> </ul>	<p><b>Exam #2 Monday June 30</b></p> <p>Diabetic Drug Therapy</p>	<p>Lilley Chapter- 31</p> <p>Study Guide- 31</p>
7		<p>Digestive System Drugs</p>	<p>Lilley Chapters- 51-53, 56, 7, and</p>

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	<ul style="list-style-type: none"> <li>• Discuss the physiology influences of various pathologies, such as peptic ulcer disease, gastritis, spastic colon, gastroesophageal reflux disease, and hyperacidity states on the health of patients and their GI tracts.</li> <li>• Identify the various agents used to treat gastric disorders.</li> <li>• Differentiate antidiarrheal, laxative and cathartic drugs.</li> <li>• Discuss the drug classes identified as antiemetics.</li> <li>• Discuss the various conditions when blood-forming agents might be indicated.</li> <li>• Identify the various fluid and electrolyte solutions commonly used in the management of fluid and electrolyte imbalances.</li> <li>• Nurses role in understanding the different herbs and minerals used by patients and their impact on patient care and education</li> </ul>	Specialty Drugs	26  Journal Articles  Study Guide- 51-53, 56, 7, and 26
8	<ul style="list-style-type: none"> <li>• Identify the various agents used to treat pituitary disorders.</li> <li>• Identify the client teaching needs for a client on thyroid or antithyroid agents.</li> <li>• Identify the various agents used to manage Type 1 and Type 2 diabetes mellitus.</li> <li>• Discuss the teaching needs of clients receiving adrenal medications.</li> <li>• Discuss the expected therapeutic responses to the various women's health agents.</li> <li>• Identify the various male reproductive agents and their indications.</li> <li>• Discuss the mechanisms of actions and indications for the use of antihistamines, decongestants,</li> </ul>	Endocrine System Drugs  <b>Exam #3 Thursday July 17</b>  Respiratory System Drugs	Lilley – Chapters 29, 30, 32, 35, and 36  Study Guide- 29, 30, 32, 35, and 36

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	antitussives, and expectorants. <ul style="list-style-type: none"> <li>• Identify classes and specific agents used in the treatment of lower respiratory tract disease.</li> </ul>		
9	<ul style="list-style-type: none"> <li>• Discuss 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  Antibiotic Drug Therapy  Antitubercular Drug Therapy  Antiviral Drug Therapy	Lilley Chapters- 35-38, 40  Study Guide- 35-38, 40
10	<ul style="list-style-type: none"> <li>• Discuss the teaching needs of clients receiving antifungal medications.</li> <li>• Discuss the indications for use of antimalarial, antiprotozoal, and antihelminthic agents.</li> <li>• Differentiate between disinfectants and antiseptics.</li> <li>• Identify diseases that are treated with toxoids and vaccines.</li> </ul>	Antibiotic Drug Therapy  Antitubercular Drug Therapy  Antifungal Drug Therapy  Antineoplastic Drug Therapy	Lilley – Chapters 39-44, 47-49  Study Guide- 39-44, 47-49

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	<ul style="list-style-type: none"> <li>• Describe how nonsteroidal anti-inflammatory drugs and other anti-inflammatory agents exert their mechanisms of action.</li> <li>• Discuss the role of immunosuppressive therapy in the treatment of autoimmune diseases.</li> <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> </ul>		
11	<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> <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>	<p><b>Exam #4 Monday August 4</b></p> <p>Antianginal Drug Therapy</p> <p>Diuretic Drug Therapy</p> <p>Anticoagulation Drug Therapy</p> <p>Antilipemic Drug Therapy</p> <p>Antihypertensive Drug Therapy</p>	<p>Lilley Chapters- 23, 24, 25, 27, and 28</p> <p>Study Guide- 23, 24, 25, 27, and 28</p>

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	<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> <li>• Identify the various antilipemic agents commonly used to treat hyperlipidemia.</li> </ul>		
12	<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