



**MATH, SCIENCE & HEALTH
PROFESSIONS**

NURSING PROGRAM

**NUR 151
PHARMACOLOGY IN NURSING
COURSE OUTLINE**

SUMMER 2016



COURSE OUTLINE

Course Number: NUR 151

Course Title: Pharmacology in Nursing

Credits: 3

Hours: 4 lecture hours/week x 12 weeks

Catalog description:

Theoretical approach to pharmacology, expanding basic concepts of drug knowledge to administer medication safely. Emphasizes pharmacology as an integrated science requiring up-to-date information consistent with current nursing responsibilities, technology, and practice. Drug therapies affecting body systems are a major consideration.

Prerequisites: MCCC Nursing Program first year completion, or permission of instructor.

Corequisites: None

Required texts/other materials:

Adams, M., Holland, Jr., N., and Urban, C. (2014), *Pharmacology for Nurses – A Pathophysiologic Approach*. (4th ed.) Upper Saddle River, NJ: Pearson Prentice Hall.
(ISBN-13:978-0-13-302618-4)

or

Lilley, L.L., Rainforth Collins, R., and Snyder, J. S. (2014). *Pharmacology and the Nursing Process*. (7th ed.) St. Louis: Elsevier Mosby. (ISBN: 9780323087896).

Lilley, L.L., Rainforth Collins, R., and Snyder, J.S. (2014). *Study Skills Guide for Pharmacology and the Nursing Process*. (7th ed.). St. Louis: Elsevier Mosby. (ISBN: 9780323091299).

Last revised: 5/2016

Course faculty: Elizabeth Mizerek, MSN, RN, CEN, CPEN, FN-CSA

Office: MS 117

Email: mizereke@mccc.edu

Summer office hours: Thursdays 12noon-1pm

Information resources: Textbook, library sources, nursing program handbook, course outline, BlackBoard on-line course materials.

Course Student Learning Outcomes:

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

Describe the nurse's role in the safe administration of pharmacologic agents.

Compare and contrast common drug classifications used in the therapeutic management of common conditions affecting body systems.

Recognize the potential for adverse interactions among medications, foods, and herbal therapies.

NUR 151 Summer 2016 Class Schedule:

Class meets every Monday and Thursday 1pm – 3:00 pm in MS334.

Class start date: Monday, May 23rd

Class end date: Monday August 10th

No class on Monday, May 30th or Monday, July 4th

Exam # 1: Monday June 13th 1pm

Exam # 2: Monday July 11th 1pm

Exam # 3: Monday August 1st 1pm

Final Exam: Monday August 15th 1pm

Theory:

Theory sessions are based on learning objectives from the course outline are scheduled for 4 hours per week.

Textbook readings and other pre-class activities as specified in the Blackboard course shell are assigned based on weekly learning objectives listed in the course outline and should be completed prior to the class session.

Interactive learning activities are an integral part of this course. This course contains 3 theory examinations and 1 cumulative final exam.

Evaluation of Student Learning:**Course Requirements:**

1. Unit Exams (3)

2. Final Exam

Grading –

Unit Exams 20% each = 60%

Final Exam..... 40%
100%

**Student must achieve a minimum grade of 77 to pass this course.
There will be no rounding of grades according to nursing program policy.**

Method of Evaluation:

Unit Exams: Three (3) unit exams, each contain 50 multiple choice or multiple response questions. Each unit exam counts as 20% of the grade for a total of 60% of the grade.

Final Exam will be cumulative multiple choice or multiple response question exam. Final exam counts as 40% of the final grade.

GRADING

A	93%-100%
A-	90%-92.99%
B+	87%-89.99%
B	83%-86.99%
B-	80%-82.99%
C+	77%-79.99%
C	70%-76.99%
D	60%-69.99%
F	59.99% or below

Testing Procedure:

- All belongings, including but not limited to backpacks, books, purses, edibles and liquids, cell phones, and electronic devices are to be placed in the front of the classroom.
- Seating during the exam is at the discretion of the instructor or exam proctor.
- All coats and hats are to be removed during the exam period. Please refer to nursing program testing policy in the Nursing Program Handbook.
- All tests are scored on Scantron forms. The Scantron sheet stands as the formal grade. Please have #2 pencils available for testing.
- All cell phones must be turned off and stored with student belongings during testing.
- After testing, all Scantron forms are secured in sealed envelope, and returned to the nursing office for processing and storage.
- Please refer to the nursing program testing policy in your program handbook for more information on testing.
- In order to successfully pass this course, point scores for the calculation of tests must be **77%** or higher.

Courtesy of Office of First 30:

First Semester Students A coach has been assigned to assist you with navigating your first semester in college. Coaches help with understanding how Mercer works, finding appropriate help with course work, and establishing academic goals. Visit www.mccc.edu/coaching to find your coach or Contact: Arlene Stinson, LB217, 570-3451, SOAR@mccc.edu

Academic Advising after your first semester Faculty advisors provide help with completing your major after your first semester. Meet your faculty advisors! Contact the division of your major to find out who is your faculty advisor.

Liberal Arts Division:	Debbie Stotland,	LA162, 570-3378,	Stotland@mccc.edu
Business Division:	Doris Geck,	BS134, 570-3482,	Geckd@mccc.edu
Math, Science, Health:	Barbara Pieslak,	MS126, 570-3383,	pieslakb@mccc.edu
Undecided major:	Michael Glass,	SC201, 570-3530,	glassm@mccc.edu

Use your “MyMercer” Portal! Your “MyMercer” portal contains your MercerMail, financial information, class schedule, grades, and other information. Check your “MyMercer” portal every day! Visit www.mccc.edu/mymercer to access your portal.

Tutoring support Academic support services are free and available for all students. Drop in or contact the following to make arrangements:

Arlene Stinson (WWC), LB 217, 570.3422, stinsona@mccc.edu
Joann Mia (TC), KC311, 570-3128, miaj@mccc.edu

Reasonable Accommodations for Students with Documented Disabilities The Office of Special Services (OSS) provides continued support to students with documented disabilities. Support staff are available to help students with differing abilities make a smooth transition to college as well as to succeed throughout their college experience. Contact:

Arlene Stinson, LB 217, 570-3525, stinsona@mccc.edu

Career and Transfer Center Planning to go to work or to transfer to a 4-year college after completing your Mercer degree? Contact the Career and Transfer Center for support and advice.

Laurene Jones (WWC transfer services), SC201, 570-3307, jonesl@mccc.edu

Michael Glass (WWC career services), SC201 570-3530, glassm@mccc.edu

Kimberley Bowser (TC transfer and career), KC216, 570-3110, bowserk@mccc.edu

Counseling Services Are you experiencing personal challenges, feeling overwhelmed? Are you having stress and anxiety? Counseling services are available free of charge. Contact:

Dorothy Gasparro, SC239, 570-3354, gasparrd@mccc.edu

Veteran's Services If you are military, veteran, or family member, we offer free support for you. Contact: Drew Daddio, SC220, 570-3240, vets@mccc.edu

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

ADA Statement: Accessibility Statement

Mercer County Community College is committed to ensuring the full participation of all students in its programs. If you have a documented differing ability or think that you may have a differing ability that is protected under the ADA and Section 504 of the Rehabilitation Act, please contact Arlene Stinson in LB 216 email: stinsona@mcccc.edu for information regarding support services.

If you do not have a documented differing ability, remember that other student resources are available to all students on campus including academic support through our Learning Center located in LB 214.

Units of Study in Detail

NUR 151 CLASS SCHEDULE (Summer 2016)

DATE	WEEKLY STUDENT LEARNING OUTCOMES	TOPIC	RECOMMENDED READING(S)
5/23	<ul style="list-style-type: none"> Demonstrate understanding of the role of pharmacokinetics and pharmacodynamics in medications administration. Relate the ethical aspects of drug administration and the nurse's role. 	Core Concepts in Pharmacology -Introduction to Pharmacology: Drug Regulation & Approval -Drug Classes & Schedules -Principles of Drug Administration -Pharmacokinetics -Pharmacodynamics	Adams Chapters- 1, 2, 3, 4, 5 Lilley Chapter- 2
5/26	<ul style="list-style-type: none"> Apply the function and purposes of the nursing process as related to drug therapy. Apply the influence of age on the effects of medications for a client. Demonstrate the importance of client education in the administration of medications. Apply correct techniques for medication administration. Compare and contrast the effects of herbal medication and their possible drug interactions. 	Pharmacology & the Nurse-Client Relationship -The Nursing Process in Pharmacology -Drug Administration throughout the Lifespan -Medication Errors & Risk Reduction -Psychosocial, Gender, & Cultural Influences on Pharmacotherapy -Substance Abuse The topic of herbal medications will be discussed with each system	Adams Chapters 6, 7, 8, 9, 11,12 Lilley ChapterS 1, 3, 4, 5, 6, 9 Adams Chap 10 Lilley Chap 7
6/2	<ul style="list-style-type: none"> Demonstrate how the nursing process is applied to clients receiving sedative-hypnotic agents. Identify the role of the nurse in promoting client compliance with drug therapy for seizure activity Describe strategies to enhance compliance in the patient taking antiepileptic drugs 	The Nervous System -Drugs for Anxiety & Insomnia -Drugs for Seizures	Adams Chapter 14 Lilley Chapter 12 Adam Chapter 15 Lilley Chapter 14

DATE	WEEKLY STUDENT LEARNING OUTCOMES	TOPIC	RECOMMENDED READING(S)
6/6	<ul style="list-style-type: none"> • . Compare and contrast the difference between an opioid agonist, agonist-antagonist, and antagonist. 	-Drugs for the Control of Pain	Adams Chapter 18 Lilley Chapter 10
	<ul style="list-style-type: none"> • Review the sympathetic nervous system as related to drug therapy with adrenergic agents. • Discuss the nurse's role in assessment of the effects of adrenergic agonists, adrenergic antagonists and cholinergic agents. • Break down the function of cholinergic receptors with contrast of stimulation versus blocking of these receptors. • Identify the role of the nurse in assessment of the effects of cholinergic blocking drugs and the different drugs. • 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. 	Drugs Affecting the Autonomic Nervous System -Adrenergic Agonists -Adrenergic Blocking Agents Cholinergic Drugs Cholinergic-Blocking Drugs	Adams Chapter 13 Lilley Chapter 18 Lilley Chapter 19 Adams Chapter 13 Lilley Chapter 20 Lilley Chapter 21
6/9	<ul style="list-style-type: none"> • Discuss the pathophysiology related to Parkinson's disease. • 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. • Analyze the mechanisms of action, dosage forms, routes of administration, cautions, 	Drugs for Degenerative Diseases of the Nervous System -Drugs for Parkinson's Disease	Adams Chapter 20 Lilley Chapter 15

DATE	WEEKLY STUDENT LEARNING OUTCOMES	TOPIC	RECOMMENDED READING(S)
6/13	<p>contraindications, drug interactions, adverse effects, patient tolerance, toxicity and patient education with the use of anti-parkinsonian drugs.</p> <ul style="list-style-type: none"> • Explain the goals of pharmacotherapy for Alzheimer's disease and the efficacy of existing medications. • Categorize drugs used in the treatment of Alzheimer's disease. • Compare and contrast the various drugs used to treat neuromuscular disorders 	<p>-Drugs for Alzheimer's Disease</p> <p>-Drugs for Neuromuscular Disorders</p> <p>(Test 1 will be given first hour of lecture class)</p>	<p>Adams Chapter 20 Lilley Chapter 20</p> <p>Adams Chapter 21</p>
6/16	<ul style="list-style-type: none"> • Compare and contrast the various drugs in the following classes of psychotherapeutic agents: antianxiety agents, antidepressants, antimanic agents, antipsychotics. • Identify the mechanism of action, indication, therapeutic effects, adverse effects, toxic effects, drug interactions, contraindications and cautions associated with various psychotherapeutic drugs. • Develop a nursing plan of care that includes all phases of the nursing process related to administration of psychotherapeutics. • Develop client education for this population of clients. 	<p>-Drugs for Anxiety and Insomnia</p> <p>-Drugs for Emotional and Mood and Behavioral Disorders</p> <p>-Drugs for Psychoses</p>	<p>Adams Chapter 14 Adams Chapter 16 Adams Chapter 17</p> <p>Lilley Chapter 16</p>
6/20	<ul style="list-style-type: none"> • Identify the various antilipemic agents commonly used to treat hyperlipidemia. 	<p>The Cardiovascular & Urinary Systems</p> <p>-Drugs for Lipid Disorders</p>	<p>Adams Chapter 22 Lilley Chapter 27</p>

DATE	WEEKLY STUDENT LEARNING OUTCOMES	TOPIC	RECOMMENDED READING(S)
	<ul style="list-style-type: none"> Discuss and define hypertension, with comparison of primary and secondary hypertension and their related manifestations. Discuss protocol for treating hypertension. 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. 	-Drugs for Hypertension	Adams Chapter 25 Lilley Chapter 22
6/23	<ul style="list-style-type: none"> Discuss the normal anatomy of the renal system. Discuss the impact of the renal system on hypertension. Discuss how diuretics work in the renal system. Discuss indications for the use of diuretic therapy 	-Diuretic Therapy & Drugs for Renal Failure	Adams Chapter 23 Lilley Chapter 28
6/27	<ul style="list-style-type: none"> Discuss the pathophysiology of myocardial ischemia and the subsequent experience of angina. Discuss the various factors that may precipitate angina and measures to decrease the occurrence. 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. 	-Drugs for Angina Pectoris & Myocardial Infarction	Adams Chapter 27 Lilly Chapter 23
6/30	<ul style="list-style-type: none"> Discuss and describe the effects of cardiac glycosides and other positive inotropic drugs on the failing and/or diseased heart. 	-Drugs for Heart Failure	Adams Chapter 26 Lilly Chapter 24

DATE	WEEKLY STUDENT LEARNING OUTCOMES	TOPIC	RECOMMENDED READING(S)
7/7	<ul style="list-style-type: none"> Compare and contrast rapid versus slow digitalization including nursing consideration, food interactions and laboratory tests. Identify significant drugs, laboratory tests, and food interactions associated with positive inotropic agents. Compare and contrast the differences between inotropic, chronotropic, and dromotropic terms. Compare, contrast and then discuss the various dysrhythmias with regard to their basic characteristics, the impact on the structure of the heart and related symptoms. Identify the various classes of antidysrhythmic agents as determined by their mechanism of action. Develop an educational plan and a plan of care for this population of clients. 	-Drugs for Dysrhythmias	Adams Chapter 29 Lilly Chapter 25
7/11	<ul style="list-style-type: none"> Compare and contrast the types of shock. Compare and contrast the use of colloids and crystalloids in fluid replacement therapy. Explain the mechanism of action, primary actions, and important adverse effects in each of the classes of drugs used in the treatment of shock. Use the Nursing Process to care for clients who are receiving drug therapy for shock. 	-Drugs for Shock - Drugs for Fluid Balance, Electrolyte and Acid-Base Disorders	Adams Chapter 28 Adams Chapter 24 Lilley Chapter 29
7/14	<ul style="list-style-type: none"> Identify the indications for and contraindications to the use of coagulation modifiers. Discuss the administration procedures, laboratory tests, and diet modifications for the various 	-Drugs for Coagulation Disorders -Drugs for Hematopoietic Disorders (Test 2 will be given first hour of	Adams Chapter 30 Adams Chapter 31 Lilly Chapter 26

DATE	WEEKLY STUDENT LEARNING OUTCOMES	TOPIC	RECOMMENDED READING(S)
7/18	<p>coagulation modifiers.</p> <ul style="list-style-type: none"> • Discuss the general principles of antibiotic therapy. • Discuss how they rid the body of infection. • Discuss the pros and cons of antibiotic use with the attention to over use or abuse of antibiotics and the development of drug resistance. • Describe the various antibiotics and the classifications of them. • Identify the first and second line drugs indicated for the treatment of TB. • Describe effects of the immune system with attention to various types of immunity. • Discuss the process of immunosuppression in patients with viral infections, specifically those with HIV. • Identify the teaching needs of clients receiving antifungal medications. • Identify the indications for use of antimalarial and antiprotozoal • Describe the actions of nonsteroidal anti-inflammatory drugs and Anti-gout agents • Identify the role of immunosuppressive therapy in the treatment of autoimmune diseases. 	<p>lecture class)</p> <p>The Immune System -Drugs for Immune System Modulation</p> <p>-Drugs for Inflammation and Fever</p> <p>-Drugs for Bacterial Infections</p> <p>-Drugs for Fungal, Protozoan, and Helminthic Infections</p> <p>Drugs for Viral Infections</p>	<p>Adams Chapter 32 Lilly Chapters 48, 49</p> <p>Adams Chapter 33 Lilley Chapter 44</p> <p>Adams Chapter 34 Lilley Chapters 38, 39, 41</p> <p>Adams Chapter 35 Lilley Chapter 43</p> <p>Adams Chapter 36 Lilly Chapter 40</p>
7/21	<ul style="list-style-type: none"> • Discuss the purpose of Antineoplastic and biologic response modifiers in the treatment of neoplasm. • Identify the three primary therapies for cancer. • Explain the nurses' role in the pharmacologic management of cancer. 	<p>-Drugs for Neoplasia (Cancer)</p>	<p>Adams Chapter 37 Lilly Chapters 45, 46</p>

DATE	WEEKLY STUDENT LEARNING OUTCOMES	TOPIC	RECOMMENDED READING(S)
7/25	<ul style="list-style-type: none"> Describe the general adverse effects of chemotherapeutic agents. Use the nursing process to plan care for patients receiving antineoplastic medications. Identify the mechanisms of actions and indications for the use of antihistamines, decongestants, antitussives and expectorants. Identify classes of specific agents used in the treatment of lower respiratory tract disease 	Drugs Affecting the Respiratory System -Drugs for Allergic Rhinitis and the Common Cold -Drugs for Asthma and Other Pulmonary Disorders	Adams Chapter 38 Lilley Chapter 36 Adams Chapter 39 Lilley Chapter 37
7/28	<ul style="list-style-type: none"> Discuss the physiology influences of various pathologies, such as peptic ulcer disease, gastritis, spastic colon, gastroesophageal reflux disease, and hyperacidity stated on the health of patients and their GI tracts. Identify various agents used to treat gastric disorders. Differentiate antidiarrheal, laxative and cathartic drugs. Develop an educational plan and a plan of care for this population of clients 	Drugs Affecting the Gastrointestinal System -Drugs for Peptic Ulcer Disease -Drugs for Bowel Disorders and Other Gastrointestinal Disorders -Drugs for Nutritional Disorders	Adams Chapter 40 Lilley Chapter 50 Adams Chapter 41 Lilley Chapter 51, 52 Adams Chapter 42 Lilley Chapter 53, 54, 55

DATE	WEEKLY STUDENT LEARNING OUTCOMES	TOPIC	RECOMMENDED READING(S)
8/1	<ul style="list-style-type: none"> Comprehends the normal actions and functions of the pancreas. Compare and contrast the contrast between Type 1 and Type 2 diabetes mellitus with regard to age of onset, signs and symptoms, pharmacologic and non-pharmacologic treatment incidence and etiology. Identify the various agents used to manage Type 1 and Type 2 diabetes mellitus. Describe the mechanisms of action, dosage forms, routes of administration, cautions, contraindications, drug interactions, adverse effects, patient tolerance, of the various categories of insulin and oral hypoglycemic drugs Develop a patient education resource for the patient receiving insulin. Developed education and plan of care using the nursing process for this population of clients. 	Drugs Affecting the Endocrine System: -Antidiabetic Drugs	Adams Chapter 44 Lilley Chapter 32
8/4	<ul style="list-style-type: none"> Identify the various agents used to treat pituitary disorders. Identify the client teaching needs for a client on thyroid or anti thyroid agents. Develop the teaching needs of clients receiving adrenal medications. 	-Drugs for Pituitary, Thyroid, and Adrenal Disorders (Test 3 will be given first hour of lecture class)	Adams Chapter 43 Lilly Chapters 30, 31, 33

DATE	WEEKLY STUDENT LEARNING OUTCOMES	TOPIC	RECOMMENDED READING(S)
8/8	<ul style="list-style-type: none"> Identify the expected therapeutic responses to the various women's health agents. Discuss the rationale for 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. 	Drugs for Disorders and Conditions of the Female Reproductive System	Adams Chapter 45 Lilly Chapter 34
8/11	<ul style="list-style-type: none"> Identify the various male reproductive agents and their indications Compare the various men's health drugs with discussion of their rationale for use, dosage forms. Discuss and describe the mechanisms of action, dosage, adverse effects, cautions, contraindications, drug interactions, and routes of administration for the various men. 	Drugs for Disorders and Conditions of the Male Reproductive System	Adams Chapter 46 Lilly Chapter 35
8/15		Final Exam (Cumulative) will be given Monday 8/15 at 1pm.	

