



## INSTRUCTIONAL PACKAGE

NUR 161

Basic Concepts of Pharmacology

201810

Fall/2018

# INSTRUCTIONAL PACKAGE

## PART I: COURSE INFORMATION

Effective Term: 201810

COURSE PREFIX: NUR 161

COURSE TITLE: Basic Concepts of Pharmacology

CONTACT HOURS: 2.0

CREDIT HOURS: 2.0

### **RATIONALE FOR THE COURSE:**

This course is an integral component of the ADN curriculum of study and is intended to expand the nursing student's knowledge and subsequent application of basic pharmacology concepts within contemporary nursing practice.

### **COURSE DESCRIPTION:**

This course is an introductory study to pharmacotherapeutics, including drug classifications and clinical implications for clients.

### **PREREQUISITES/CO-REQUISITES:**

Prerequisites: MAT 130 or (NUR 150 and NUR 162)

Corequisites: NUR 101, BIO 210, ENG 101, MAT 110, MAT 120

### **REQUIRED MATERIALS:**

Please visit the Bookstore online site for most current textbook information. Use the direct link below to find textbooks.

[BOOKSTORE](#).

Enter the semester, course prefix, number and section when prompted and you will be linked to the correct textbook.

### **ADDITIONAL REQUIREMENTS:**

Kaplan

### **TECHNICAL REQUIREMENTS:**

Access to Desire2Learn (D2L), HGTC's student portal for course materials.  
WaveNet and D2L email access.

### **CLASSROOM ETIQUETTE:**

As a matter of courtesy to other students and your professor, please turn off cell phones and other communication/entertainment devices before class begins. If you are monitoring for an emergency, please notify your professor prior to class and switch cell phone ringers to vibrate.

## **Part II: STUDENT LEARNING OUTCOMES**

### **COURSE LEARNING OUTCOMES and ASSESSMENTS:**

#### LEARNING OUTCOMES:

Upon completion of the course, the student should be able to

#### SAFETY

1. Apply knowledge of pharmacotherapeutics to promote a safe health care environment.

#### CLINICAL DECISION-MAKING

2. Explore the process for effective clinical decision-making related to pharmacotherapeutics by considering multiple factors such as physical assessment findings and laboratory values.

#### TEAMWORK AND COLLABORATION

3. Discuss the impact that collaborative professional relationships have on positive patient outcomes related to pharmacotherapeutics.

#### PROFESSIONAL BEHAVIORS

4. Explain the importance of ethical and regulatory standards related to the handling and administration of pharmacotherapeutics.

#### PATIENT-CENTERED CARE

5. Recognize the effect that age, gender, race, and weight have on pharmacotherapeutics within the human body.
6. Formulate effective drug education information appropriate for diverse patient populations that addresses age, level of education and development, language, and cultural considerations.

#### Module #1 - Introduction to Course

Materials Covered: Instructional Package and Course Calendar

\*Assessment(s): Complete class review activity.

#### Learning Outcomes:

1. Review Instructional Package.
2. Discuss the application of foundational concepts of HGTC nursing program in relation to NUR 161
  - a. Safety
  - b. Clinical decision-making
  - c. Teamwork and collaboration
  - d. Professional behaviors
  - e. Patient-centered care
3. Suggest study methodology and provide test taking guidance
4. Identify availability of faculty and how to reach course faculty.

#### Module #2 - Introduction to nursing pharmacology

Materials Covered:

Chapters:

1. Introduction to drugs
2. Drugs and the body
3. Toxic effects of drugs
4. The nursing process in drug therapy and patient safety
5. Dosage Calculations (Review of basic dimensional analysis problems)
6. Challenges to effective drug therapy

\*Assessment(s): Weekly Quizzes, Unit Test, homework/ in-class assignments. Final Exam

Learning Outcomes:

1. Read chapters, define all terms in the glossary for each chapter, complete the "Check Your Understanding" questions at the end of each Chapter. (self-review, Class preparation)
2. Define pharmacology and pharmacotherapeutics.
3. Discuss the steps of drug approval in the United States and describe the federal controls on drugs that have abuse potential and pregnancy categories
4. Differentiate between generic and brand-name drugs and over-the-counter and prescription drugs and describe the risks and benefits of each.
5. Describe the process of dynamic equilibrium, adverse drug reactions, allergic responses, factors that can influence drug effectiveness, drug interactions to drugs, food and laboratory tests, and examples of drug induced tissue damage.
6. Outline the important factors to consider when applying the nursing process to selected situations of drug poisoning.
7. List the responsibilities of the nurse in drug therapy and describe the essential elements of a medication order.
8. Explain what is involved in each step of the nursing process as it related to drug therapy.
9. Describe key points that must be incorporated in the assessment of a client receiving drug therapy.
10. Describe the role of the nurse and the client in medication administration preventing medication errors.
11. Calculate the correct dose of a drug when given examples of drug orders and available forms of the drugs ordered.
12. Discuss age related nursing implications for clients across the lifespan from pediatric to elderly.
13. Discuss the impact of the media, the internet, and direct consumer advertising on drug sales and prescriptions.
14. Discuss the lack of controls on herbal or alternative therapies and the impact this has on safe drug therapy.
15. Describe measures being taken to protect the public in cases of bioterrorism.

Module #3- Chemotherapeutic Agents

Materials Covered:

Chapters:

Chapter 7: Introduction to Cell Physiology (Self-review- Quiz)

Chapter 9: Antibiotics

Chapter 10: Antiviral Agents

Chapter 11: Antifungal Agents

Chapter 12: Antiprotozoal Agents

\*Assessment(s): Weekly Quizzes, Unit Test, homework/ in-class assignments. Final Exam

Learning Outcomes:

1. Read chapters, define all terms in the glossary for each chapter, complete the “Check Your Understanding” questions at the end of each Chapter. (self-review, Class preparation)
2. Describe therapeutic actions, indications, pharmacokinetics, contraindications, most common adverse reactions, and important drug–drug interactions associated with each of the classifications of chemotherapeutic agents.
3. Discuss safe use of chemotherapeutic agents as they are used across the lifespan.
4. Explain the importance of teamwork and collaboration to compare and contrast prototype drugs for each class of chemotherapeutic agents with other drugs in that class.
5. Outline nursing considerations for patients receiving each class of chemotherapeutic agents using cultural competency.
6. Discuss the importance of professional behavior when working with chemotherapeutic agent within the clinical setting.
7. Discuss the use of the clinical decision making process when managing clients on chemotherapeutic agents.

Module #4- Immunological Agents and Anemia Drug Therapy

Materials Covered:

Chapters:

Chapter 14: Antineoplastic agents

Chapter 15: Introduction to the immune response and inflammation (Self-review- Quiz)

Chapter 16: Anti-Inflammatory, Anti-arthritis and related agents

Chapter 17: Immune Modulators

Chapters 49: Drugs used to treat Anemia

\*Assessment(s): Weekly Quizzes, Unit Test, homework/ in-class assignments. Final Exam

Learning Outcomes:

1. Read chapters, define all terms in the glossary for each chapter, complete the “Check Your Understanding” questions at the end of each Chapter. (self-review, Class preparation)

2. Describe therapeutic actions, indications, pharmacokinetics, contraindications, most common adverse reactions, and important drug–drug interactions associated with each of the classifications of Immunological/ Anemia agents.
3. Discuss safe use of Immunological/ Anemia agents as they are used across the lifespan.
4. Explain the importance of teamwork and collaboration to compare and contrast prototype drugs for each class of Immunological/ Anemia agents with other drugs in that class.
5. Outline nursing considerations for patients receiving each class of Immunological/ Anemia agents using cultural competency.
6. Discuss the importance of professional behavior when working with Immunological/ Anemia agents within the clinical setting.
7. Discuss the use of the clinical decision making process when managing clients on Immunological/ Anemia agents.

#### Module #5- Drugs Acting on the Cardiovascular System

##### Materials Covered:

##### Chapters:

Chapter 42: Introduction to the cardiovascular system-(Self-review- Quiz)

Chapter 50: Introduction to the renal system (Self –Review- Quiz)

Chapter 51: Diuretic agents

Chapter 43: Drugs affecting Blood Pressure

Chapter 44: Cardio tonic Agents

Chapter 45: Antiarrhythmic Agents

Chapter 46: Antianginal Agents

Chapter 47: Lipid lowering agents

Chapter 48: Drugs Affecting Blood Coagulation

\*Assessment(s): Weekly Quizzes, Unit Test, homework/ in-class assignments. Final Exam

##### Learning Outcomes:

1. Read chapters, define all terms in the glossary for each chapter, complete the “Check Your Understanding” questions at the end of each Chapter. (self-review, Class preparation)
2. Describe therapeutic actions, indications, pharmacokinetics, contraindications, most common adverse reactions, and important drug–drug interactions associated with each of the classifications of cardiovascular agents.
3. Discuss safe use of cardiovascular agents as they are used across the lifespan.
4. Explain the importance of teamwork and collaboration to compare and contrast prototype drugs for each class of cardiovascular agents with other drugs in that class.
5. Outline nursing considerations for patients receiving each class of cardiovascular agents using cultural competency.
6. Discuss the importance of professional behavior when working with cardiovascular agents within the clinical setting.
7. Discuss the use of the clinical decision making process when managing clients on cardiovascular agents.

## Module #6- Drugs acting on the central and peripheral nervous systems

### Materials Covered:

#### Chapters:

Chapter 19: Introduction to Nerves and the Nervous System (Self-review- Quiz)

Chapter 20: Anxiolytic and Hypnotic Agents

Chapter 21: Antidepressant Agents

Chapter 22: Psychotherapeutic Agents

Chapter 23: Antiseizure Agents

Chapter 24: Antiparkinsonism Agents

Chapter 25: Muscle Relaxants

Chapter 26: Narcotics, Narcotic Antagonists, and Antimigraine Agents

Chapter 27: General and Local Anesthetic Agents-(Selected drugs only, Lidocaine)

Chapter 28: Neuromuscular Junction Blocking Agents-(Selected drugs only, Pancuronium and Succinylcholine)

\*Assessment(s): Weekly Quizzes, Unit Test, homework/ in-class assignments. Final Exam

### Learning Outcomes:

1. Read chapters, define all terms in the glossary for each chapter, complete the “Check Your Understanding” questions at the end of each Chapter. (self-review, Class preparation)
2. Describe the therapeutic actions, indications, pharmacokinetics, contraindications, most common adverse reactions, and important drug–drug interactions associated with each class of central and peripheral nervous systems agents
3. Discuss the safe use of central and peripheral nervous systems agents across the lifespan.
4. Explain the importance of teamwork and collaboration to compare and contrast the prototype drugs for each class of central and peripheral nervous systems agents with the other drugs in that class.
5. Outline the nursing considerations and teaching needs for patients receiving each class of central and peripheral nervous systems agents using cultural competency.
6. Discuss the importance of professional behavior when working with central and peripheral nervous systems agents within the clinical setting.
7. Discuss the use of the clinical decision making process when managing a client on central and peripheral nervous systems agent.

## Module #7- Drugs acting on the autonomic nervous system

### Materials Covered:

#### Chapters:

Chapter 29: Introduction to the Autonomic Nervous System (Self-review- Quiz)

Chapter 30: Adrenergic Agonists

Chapter 31: Adrenergic Blocking Antagonists

Chapter 32: Cholinergic Agonists  
Chapter 33: Anticholinergic Agents

\*Assessment(s): Weekly Quizzes, Unit Test, homework/ in-class assignments. Final Exam

Learning Outcomes:

1. Read chapters, define all terms in the glossary for each chapter, complete the “Check Your Understanding” questions at the end of each Chapter. (self-review, Class preparation)
2. Describe the therapeutic actions, indications, pharmacokinetics, contraindications, most common adverse reactions, and important drug–drug interactions associated with autonomic nervous system agents
3. Discuss the safe use of autonomic nervous system agents across the lifespan.
4. Explain the importance of teamwork and collaboration to compare and contrast the prototype drugs for each class of autonomic nervous system agents with the other drugs in that class.
5. Outline the nursing considerations, including important teaching points, for patients receiving an autonomic nervous system agent using cultural competency.
6. Discuss the importance of professional behavior when working with autonomic nervous system agents within the clinical setting.
7. Discuss the use of the clinical decision making process when managing a client on autonomic nervous system agents.

Module #8- Drugs Acting on the Endocrine System

Materials Covered:

Chapters:

Chapter 34: Introduction to the Endocrine System (Self-review- Quiz)

Chapter 35: Hypothalamic and Pituitary Agents

Chapter 36: Adrenocortical Agents

Chapter 37: Thyroid and parathyroid agents

Chapter 38: Agents to control blood glucose levels

\*Assessment(s): Weekly Quizzes, Unit Test, homework/ in-class assignments. Final Exam

Learning Outcomes:

1. Read chapters, define all terms in the glossary for each chapter, complete the “Check Your Understanding” questions at the end of each Chapter. (self-review, Class preparation)
2. Describe the therapeutic actions, indications, pharmacokinetics, contraindications, most common adverse reactions, and important drug–drug interactions associated with endocrine system agents



3. Discuss the safe use of endocrine system agents across the lifespan.
4. Explain the importance of teamwork and collaboration to compare and contrast the prototype drugs for each class of endocrine system agents with the other drugs in that class.
5. Outline the nursing considerations, including important teaching points, for patients receiving an endocrine system agent using cultural competency.
6. Discuss the importance of professional behavior when working with endocrine system agents within the clinical setting.
7. Discuss the use of the clinical decision making process when managing a client on endocrine system agents.

#### Module #9- Drugs Acting on the genitourinary system

##### Materials Covered:

##### Chapters:

Chapter 39: Introduction the reproductive system-own (Self-review- Quiz)

Chapter 40: Drugs affecting the female reproductive system

Chapter 41: Drugs affecting the male reproductive system

Chapter 52: Drugs affecting the urinary tract and the bladder.

\*Assessment(s): Weekly Quizzes, Unit Test, homework/ in-class assignments. Final Exam

##### Learning Outcomes:

1. Read chapters, define all terms in the glossary for each chapter, complete the “Check Your Understanding” questions at the end of each Chapter. (self-review, Class preparation)
2. Describe the therapeutic actions, indications, pharmacokinetics, contraindications, most common adverse reactions, and important drug–drug interactions associated with renal system agents.
3. Discuss the safe use of renal system agents across the lifespan.
4. Explain the importance of teamwork and collaboration to compare and contrast the prototype drugs for each class of renal system agents with the other drugs in that class.
5. Outline the nursing considerations, including important teaching points, for patients receiving a renal system agent using cultural competency.
6. Discuss the importance of professional behavior when working with renal system agents within the clinical setting.
7. Discuss the use of the clinical decision making process when managing a client on renal system agents

Module #10 and # 11- Drugs Acting on the respiratory system, and Drugs Acting on the gastrointestinal system.

Materials Covered:

Chapters:

Chapter 53: Introduction the respiratory system-own (Self-review- Quiz)

Chapter 54: Drugs acting on the upper respiratory tract

Chapter 55: Drugs acting on the lower respiratory tract

Chapter 56: Introduction to the gastrointestinal system-own (Self-review- Quiz)

Chapter 57: Drugs affecting the gastrointestinal secretions.

Chapter 58: Drugs affecting gastrointestinal motility.

Chapter 59: Antiemetic Agents.

\*Assessment(s): Weekly Quizzes, Unit Test, homework/ in-class assignments. Final Exam

Learning Outcomes:

1. Read chapters, define all terms in the glossary for each chapter, complete the “Check Your Understanding” questions at the end of each Chapter. (self-review, Class preparation)
2. Describe the therapeutic actions, indications, pharmacokinetics, contraindications, most common adverse reactions, and important drug–drug interactions associated with respiratory and gastrointestinal system agents.
3. Discuss the safe use of respiratory and gastrointestinal system agents across the lifespan.
4. Explain the importance of teamwork and collaboration to compare and contrast the prototype drugs for each class of respiratory and gastrointestinal system agents with the other drugs in that class.
5. Outline the nursing considerations, including important teaching points, for patients receiving respiratory and gastrointestinal system agent using cultural competency.
6. Discuss the importance of professional behavior when working with renal system agents within the clinical setting.
7. Discuss the use of the clinical decision making process when managing a client on respiratory and gastrointestinal system agents

***\*Students – please refer to the Instructor’s Course Information sheet for specific information on assessments and due dates.***

### **Part III: Grading and Assessment**

#### **EVALUATION OF REQUIRED COURSE MEASURES/ARTIFACTS\***

Students’ performance will be assessed and the weight associated with the various measures/artifacts are listed below.

**EVALUATION\***

4 Unit Tests/Exams	60%
Homework/Quizzes/Class Assignments	10%
Medication Error paper	10%
Final Exam	20%
	<hr/>
	100%

***\*Students, for the specific number and type of evaluations, please refer to the Instructor's Course Information Sheet.***

**GRADING SYSTEM:**

A = 100 – 90, B = 89- 80, C = 79 – 77, D =76- 69, F = Below 69

Grades earned in courses impact academic progression and financial aid status. Before withdrawing from a course, be sure to talk with your instructor and financial aid counselor about the implications of that course of action. Ds, Fs, Ws, WFs and Is also negatively impact academic progression and financial aid status.

The Add/Drop Period is the first 5 days of the semester for **full term** classes. Add/Drop periods are shorter for accelerated format courses. Please refer to the academic calendar for deadlines for add/drop ([ACADEMIC CALENDAR](#)). You must attend at least one meeting of all of your classes during that period. If you do not, you will be dropped from the course(s) and your Financial Aid will be reduced accordingly.

**Part IV: Attendance**

Horry-Georgetown Technical College maintains a general attendance policy requiring students to be present for a minimum of eighty percent (80%) of his or her classes in order to be eligible to receive credit for any course. However, due to the varied nature of courses taught at the College, a more rigid attendance policy may be required by individual instructors. At a minimum, a student may be withdrawn from a course(s) after he or she has been absent in excess of ten percent (10%) of the total contact hours for a course. **Instructors define absentee limits for their class at the beginning of each term; please refer to the Instructor Course Information Sheet.**

## Part V: Student Resources

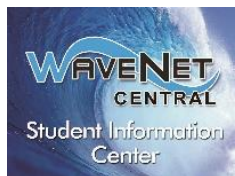


### The Student Success and Tutoring Center (SSTC)

The SSTC offers to all students the following **free** resources:

1. **Academic coaches** for most subject areas, **Writing Center Support**, and **college success skills**.
2. **On-line student success and academic support resources**.

Visit the SSTC website: [Student Success & Tutoring Center](#) and visit the student services tab in your WaveNet account to schedule appointments using TutorTrac. For more information, call: SSTC Conway, 349-7872; SSTC Grand Strand, 477-2113; and SSTC Georgetown, 520-1455. Room locations and Live Chat is available on the SSTC website.



### Student Information Center: WaveNet Central (WNC)

WNC offers to all students the following **free** resources:

1. **Getting around HGTC:** General information and guidance for enrollment!
2. Use the [Online Resource Center \(ORC\)](#) for COMPASS support, technology education, and online tools.
3. **Drop-in technology support or scheduled training** in the Center or in class.
4. **In-person workshops, online tutorials and more services** are available.

Visit the WNC website: [Wavenet Central](#). Live Chat and Center locations are posted on the website. Or please call one of the following locations: WNC Conway, 349-5182; WNC Grand Strand, 477-2076; and WNC Georgetown, 520-1473.

### Student Testing:

The **Instructor Course Information Sheet** will have more details on test requirements for your course.

## Disability Services

HGTC is committed to providing an accessible environment for students with disabilities. Inquiries may be directed to Jocelyn Williams, Director of Student Development on the Conway Campus Jaime Davis, Counselor/Advisor on the Georgetown Campus or Kristin Griffin, Counselor on the Grand Strand Campus. These individuals will review documentation of the student's disability and, in a confidential setting with the student, develop an educational accommodation plan.

Note: It is the student's responsibility to self-identify as needing accommodations and to provide acceptable documentation. After a student has self-identified and submitted documentation of a disability, accommodations may be determined, accepted, and provided.

## Statement of Equal Opportunity/Non-Discrimination Statement

Horry Georgetown Technical College prohibits discrimination and harassment, including sexual harassment and abuse, on the basis of race, color, gender, national or ethnic origin, age, religion, disability, marital status, veteran status, sexual orientation, gender identity, or pregnancy in educational programs and/or activities.

### ***Title IX Requirements***

Horry Georgetown Technical College prohibits the offenses of domestic violence, dating violence, sexual assault, and stalking. Any student who believe he or she has experienced or witnessed discrimination including sexual harassment, domestic violence, dating violence, sexual assault or stalking is encouraged to report such incidents to one of the College's Title IX Coordinators.

\*Faculty and Staff are required to report incidents to the Title IX Coordinators when involving students. The only HGTC employees exempt from mandatory reporting are licensed mental health professionals (only as part of their job description such as counseling services).

<b>Inquiries regarding the non-discrimination policies:</b>	
Student and prospective student inquiries concerning Section 504, Title II, and Title IX and their application to the College or any student decision may be directed to the Associate Vice President for Student Affairs.	Employee and applicant inquiries concerning Section 504, Title II, and Title IX and their application to the College may be directed to the Associate Vice President for Human Resources.
<b>Dr. Melissa Batten, AVP Student Affairs</b> <i>Title IX Coordinator</i> Building 1100, Room 107A, Conway Campus PO Box 261966, Conway, SC 29528-6066 843-349-5228 <a href="mailto:Melissa.Batten@hgtc.edu">Melissa.Batten@hgtc.edu</a>	<b>Jacquelyne Snyder, AVP Human Resources</b> <i>Section 504, Title II, and Title IX Coordinator</i> Building 200, Room 212A, Conway Campus PO Box 261966, Conway, SC 29528-6066 843-349-5212 <a href="mailto:Jacquelyne.Snyder@hgtc.edu">Jacquelyne.Snyder@hgtc.edu</a>