



INSTRUCTIONAL PACKAGE

NUR 161
Basic Concepts of Pharmacology

Effective Term
Fall 2021

INSTRUCTIONAL PACKAGE

Part I: Course Information

Effective Term: 202210

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: NUR 150,

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

***Online/Hybrid** courses require students to complete the [DLi Orientation Video](#) prior to enrolling in an online course.

REQUIRED MATERIALS:

Lilley, L. L., Collins S.R. & Snyder, J. S. (2020). *Pharmacology and the nursing process* (9th Ed.). Elsevier Inc.

Lilley, L. L., Collins S.R. & Snyder, J. S. (2020). *Pharmacology and the nursing process: Study guide* (9th Ed.). Elsevier Inc.

Please visit the Bookstore online site for the 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:

1. Student Resources on Elsevier/evolve web site
 Sherpath for Pharmacology (Lilley revised version, 9th edition) – Evolve Course
2. Medication Cards (purchased in bookstore)
3. Kaplan Student Resources

TECHNICAL REQUIREMENTS:

Access to Desire2Learn (D2L), HGTC's student portal for course materials.
myHGTC and college 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.

Refer to Student Code, I, General Rights of Students, F. Classroom Behavior in the Academic Catalog & Student Handbook

NETIQUETTE: is the term commonly used to refer to conventions adopted by Internet users on the web, mailing lists, public forums, and in live chat focused on online communications etiquette. For more information regarding Netiquette expectations for distance learning courses, please visit [Online Netiquette](#).

Part II: Student Learning Outcomes

COURSE LEARNING OUTCOMES and ASSESSMENTS

LEARNING OUTCOMES:

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

1. SAFETY

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

2. CLINICAL DECISION-MAKING

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

3. TEAMWORK AND COLLABORATION

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

4. PROFESSIONAL BEHAVIORS

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

5. PATIENT-CENTERED CARE

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

Module # 1

Materials Covered: Instructional Package & Instructor Course Information Sheet
Course Calendar & Assignments
Evolve Online Resources (Sherpath)
Chapter 1: Nursing Process

***Assessment(s):** Group Discussion, Online Assignments, written assignment

Learning Outcomes

1. Articulate the course learning outcomes and progression of the course.
2. Locate on-line assignments, evolve online resources and navigate the HGTC D2L site.
4. Identify availability of faculty and how to reach course faculty.
5. List and articulate the 5 phases of the nursing process as it relates to drug therapy.
6. Articulate the "Nine Rights" and other "Rights" associated with safe medication administration.
7. Discuss the professional responsibility and standard of practice for the professional nurse as it relates to medication administration.
8. Explain the importance of teamwork and collaboration in the safe administration of medications.

Module #2

Materials Covered: Chapter 2: Pharmacologic Principles
Chapter 3: Life Span Considerations
Chapter 4: Cultural, Legal and Ethical Considerations

***Assessment(s):** Case studies, Mastery quizzing, home/in class assignments, exams

Learning Outcomes:

1. Define common terms used in pharmacology.
Agonist, adverse drug reaction, antagonist, classification, generic name, half-life, parent drug, peak effect, peak level, pharmacology, pharmacotherapeutics, receptor, synergistic effect, therapeutic index, teratogenic, trade name.
2. List the "Nine Rights" and discuss the purpose and significance of the Rights.
3. Demonstrate an understanding of the various drug doses forms as they relate to drug therapy.
4. Describe the process of pharmacokinetics (absorption, distribution, metabolism and excretion).
5. Discuss the influences of the patient's age in the effects of drugs and drug responses to ensure safe medication administration.
6. Provide examples of how age affects the absorption, distribution, metabolism and excretion of drugs across the life span.

7. Identify cultural factors (ethnicity and genetics) and gender that may influence an individual's response to medications, medication errors (physical and emotional).
8. Prepare a useful medication card that identifies classification, routes of administration, action, contraindications, important lab, nursing responsibilities and patient education.

Module #3

Material Covered: Chapter 5: Medication Errors: Preventing & Responding
Chapter 6: Patient Education and Drug Therapy
Chapter 7: OTC Drugs & Herbal & Dietary Supplements

***Assessment(s):** Case studies, Mastery quizzing, home/in class assignments, exams

Learning Outcomes:

1. Define key terms: Alternative medicine, herbs, iatrogenic effect, Over the Counter drugs
2. Discuss the issues contributing to the occurrence of medication errors, consequences of errors and methods of response and prevention.
3. List the responsibilities of the nurse in drug therapy and describe the essential elements of a medication order, including roles of the health care team.
4. Describe the role of the nurse and the patient in medication administration and prevention of medication errors.
5. Discuss the role of herbal, OTC and dietary supplements in the integrative approach to nursing and health care.
6. Discuss the importance of professional behavior when working with chemotherapeutic agent within the clinical setting.

Module #4

Material Covered: Chapter 10: Analgesic Drugs
Chapter 12: Central Nervous System Depressants & Muscle Relaxants
Chapter 13: Central Nervous System Stimulants & Related Drugs

***Assessment(s):** Case studies, Mastery quizzing, home/in class assignments, exams

Learning Outcomes:

1. Define key terms: acute pain, chronic pain, break through pain, cancer pain, analgesic ceiling effect, opioid, tolerance, somatic pain, visceral pain, phantom pain, hypnotic, sedative, barbiturate, benzodiazepines, gamma-aminobutyric acid (GABA), ergot alkaloids, migraine.
2. Describe therapeutic actions, indications, pharmacokinetics, routes of administration, contraindications, common adverse reactions, toxicity, cautions and important drug-drug

interactions associated with opioids, nonopioid, nonsteroidal anti-inflammatory analgesic drugs.

3. Articulate a nursing care plan based on the nursing process for patients in pain related to the use of nonopioid and opioid drug therapy.
4. Describe therapeutic actions, indications, pharmacokinetics, routes of administration, contraindications, common adverse reactions, toxicity, cautions and important drug–drug interactions associated with benzodiazepines, muscle relaxants, hypnotics and migraine headaches.
5. Articulate a nursing care plan with patient teaching based on the nursing process for a patient taking a benzodiazepine or ergot alkaloid.
6. Discuss the safe use of analgesics, benzodiazepines, hypnotic, ergot alkaloid drugs as they are used across the lifespan.

Module #5

Material Covered: Chapter 14: Antiepileptic Drugs
Chapter 16: Psychotherapeutic Drugs

***Assessment(s):** Case studies, Mastery quizzing, home/in class assignments, exams

Learning Outcomes:

1. Define key terms: anticonvulsant, antiepileptic drug, electroencephalogram, epilepsy, focal onset seizure, generalized onset seizure, gingival hyperplasia, status epilepticus, tonic-clonic seizures, neurotransmitters, serotonin syndrome, black box warning.
2. Describe therapeutic actions, indications, pharmacokinetics, routes of administration, contraindications, common adverse reactions, laboratory testing, toxicity, cautions and important drug–drug interactions associated with antiepileptic drugs, anxiolytic and antidepressant drugs.
3. Articulate a nursing care plan with patient education based on the nursing process for a patient taking antiepileptic drugs.
4. Articulate safety measures, nursing responsibilities, clinical decision making and patient education across the life span for patients taking anticonvulsant, antidepressant and anxiolytic drugs.

Module #6

Material Covered: Chapter 22: Antihypertensive Drugs
Chapter 23: Antianginal Drugs
Chapter 24: Heart Failure Drugs

***Assessment(s):** Case studies, Mastery quizzing, home/in class assignments, exams

Learning Outcomes:

1. Define key terms: Hypertension, cardiac output, essential hypertension, orthostatic hypertension, secondary hypertension, atrial fibrillation, heart failure, inotropic, chronotropic, dronotropic.
2. List the criteria for the measure values for the hypertension categories.
3. Describe the protocol for treating hypertension as detailed in "The Eighth Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure.
4. Describe therapeutic actions, indications, pharmacokinetics, routes of administration, contraindications, significant adverse reactions, laboratory testing, toxicity, cautions and important drug–drug interactions associated with Beta-adrenergic receptor blockers, Calcium channel blockers, Angiotensin-converting enzyme (ACE) blockers, nitroglycerine, cardiac glycosides.
5. Articulate a nursing care plan using the nursing process that includes safety, nursing responsibilities, clinical decision making and patient education for the patient taking antihypertensive drugs,
6. Articulate safety measures, nursing responsibilities, clinical decision-making and patient education across the lifespan for patients taking cardiac medications.

Module #7

Material Covered: Chapter 26: Coagulation Modifier Drugs
Chapter 27: Antilipemic Drugs
Chapter 28: Diuretic Drugs

***Assessment(s):** Case studies, Mastery quizzing, home/in class assignments, exams

Learning Outcomes:

1. Define key terms: anticoagulant, antiplatelet, fibrinogen, antithrombin III, cholesterol, statins, triglycerides, hypercholesterolemia, aldosterone, nephron, loop of Henle.
2. Comprehend the basics of the coagulation process and the impact of anticoagulants and antiplatelet drugs.
3. Identify specific lab tests and antidotes used in conjunction with the coagulation modifying drugs.

4. Describe therapeutic actions, indications, pharmacokinetics, routes of administration, contraindications, significant adverse reactions, laboratory testing, toxicity, cautions and important drug–drug interactions associated with coagulation modifier drugs, antilipidemic drugs and Diuretic drugs.
5. Compare differences between different classifications of antilipidemic drugs.
6. Compare differences between different classifications of diuretic drugs.
7. Describe how diuretics work in the kidney and how they lower blood pressure.
8. Articulate a nursing care plan using the nursing process that includes safety, nursing responsibilities, clinical decision making and patient education for the patient taking coagulation modifiers, antilipidemics and diuretic drugs
9. Articulate safety measures, nursing responsibilities, clinical decision-making and patient education across the lifespan for patients taking coagulation modifiers, antilipidemics and diuretic drugs.

Module #8

Material Covered: Chapter 31: Thyroid and Antithyroid Drugs
 Chapter 32: Diabetic Drugs
 Chapter 33: Adrenal Drugs

***Assessment(s):** Case studies, Mastery quizzing, home/in class assignments, exams

Learning Outcomes:

1. Define key terms: Euthyroid, hypothyroidism, thyroid-stimulating hormone, thyroxine, insulin, hyperglycemia, hypoglycemia, glucose, hemoglobin A1C, diabetes mellitus, corticosteroids, adrenal cortex
2. Identify specific lab tests used in conjunction with synthroid, diabetic drugs, and adrenal drugs.
3. Contrast differences between type 1 and type 2 diabetes & identify various drugs to treat both types.
4. Compare rapid, short, intermediate and long-acting insulins with regard to onset of action, peak effects and duration.
5. Compare properties, physiologic function of glucocorticoids and mineralocorticoids.
6. Describe therapeutic actions, indications, pharmacokinetics, routes of administration, contraindications, significant adverse reactions, laboratory testing, toxicity, cautions and important drug–drug interactions associated with synthroid, diabetic drugs and adrenal drugs.
7. Articulate a nursing care plan using the nursing process that includes safety, nursing responsibilities, clinical decision-making and patient education for the patient taking synthroid, diabetic and adrenal drugs.

8. Articulate safety measures, nursing responsibilities, clinical decision-making and patient education across the lifespan for patients taking synthroid, diabetic drugs, adrenal drugs.

Module #9

Material Covered: Chapter 36: Antihistamines, Decongestants, Antitussives ...
Chapter 37: Respiratory Drugs

***Assessment(s):** Case studies, Mastery quizzing, home/in class assignments, exams

Learning Outcomes:

1. Define key terms: antihistamine, antitussive, decongestant, expectorating, adrenergic, asthma attack, COPD, lower respiratory tract, upper respiratory tract, status asthmaticus, allergen, alveoli
2. Identify examples of drugs categorized as antihistamines (sedating/nonsedating, decongestants, antitussives, expectorants).
3. List the classification of drugs used to treat diseases of the respiratory system.
4. Describe therapeutic actions, indications, pharmacokinetics, routes of administration, contraindications, significant adverse reactions, laboratory testing, toxicity, cautions and important drug–drug interactions associated with medications treating respiratory conditions/diseases.
5. Articulate a nursing care plan using the nursing process that includes safety, nursing responsibilities, clinical decision making and patient education for the patient taking medications to treat respiratory conditions/diseases.
6. Articulate safety measures, nursing responsibilities, clinical decision-making and patient education across the lifespan for patients taking medications to treat respiratory conditions/diseases.

Module #10

Material Covered: Chapter 38: Antibiotics Part I
Chapter 39: Antibiotic Part II
Chapter 40: Antiviral

***Assessment(s):** Case studies, Mastery quizzing, home/in class assignments, exams

Learning Outcomes:

1. Define key terms: antibiotic, bactericidal, bacteriostatic, beta-lactam, beta-lactamase, c. difficile, community acquired infection, prophylactic, teratogen host, factor, infection, resistance, superinfection.
2. List the classifications of drugs used to treat bacterial infections.

3. Describe therapeutic actions, indications, pharmacokinetics, routes of administration, contraindications, significant adverse reactions, laboratory testing, toxicity, cautions and important drug–drug interactions associated with antibiotics, antifungal agents (nystatin, amphotericin b).
4. Articulate a nursing care plan using the nursing process that includes safety, nursing responsibilities, clinical decision making and patient education for the patient taking antibiotic and antifungal drugs
5. Articulate safety measures, nursing responsibilities, clinical decision-making, and patient education across the lifespan for patients taking antibiotic and antiviral drugs.

Module #11

Material Covered: Chapter 44: Anti-inflammatory & Antigout Drugs
 Chapter 50: Acid Control Drugs
 Chapter 52: Antiemetic & Antinausea Drugs

***Assessment(s):** Case studies, Mastery quizzing, home/in class assignments, exams

Learning Outcomes:

1. Define key terms: inflammation, nonsteroidal anti-inflammatory drugs (NSAID), Salicylism, antacid, hydrochloric acid, pepsin, mucous cells, antiemetic, emesis, chemoreceptor trigger zone (CTZ)
2. Discuss inflammatory response and the signs/symptoms of inflammation.
3. Describe therapeutic actions, indications, pharmacokinetics, routes of administration, contraindications, significant adverse reactions, laboratory testing, toxicity, cautions and important drug–drug interactions associated with NSAIDs, acid controlling drugs, antiemetic drugs
4. Articulate a nursing care plan using the nursing process that includes safety, nursing responsibilities, clinical decision-making and patient education for the patient taking NSAIDs, acid controlling drugs, antiemetic drugs.
5. Articulate safety measures, nursing responsibilities, clinical decision-making and patient education across the lifespan for patients taking NSAIDs, acid controlling drugs, antiemetic drugs.

**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*

| | |
|----------------------------|------|
| Tests | 80% |
| Quizzes/Assignments | 10% |
| Final Exam (Comprehensive) | 10% |
| | 100% |

Students must achieve a weighted exam average of 77 or greater on the unit exams and the final exam to pass this course.

* Quizzes and assignments will be added to the grade once the 77 average is achieved on the unit and final exams to calculate the overall theory grade.

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

GRADING SYSTEM:

Because competency in nursing theory is a critical component for safe nursing practices, the grading scale for nursing is higher than for some other courses. The grading scale for nursing is:

A = 100 – 90

B = 89 – 80

C = 79 – 77

D = 76 – 60

F = 59 and below.

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 80 percent (80%) of their classes in order to receive credit for any course. Due to the varied nature of courses taught at the college, some faculty may require up to 90 percent (90%) attendance. Pursuant to 34 Code of Federal Regulations 228.22 - Return to Title IV Funds, once a student has missed over 20% of the course or has missed two (2) consecutive weeks, the faculty is obligated to withdraw the student and a student may not be permitted to reenroll. **Instructors define absentee limits for their class at the beginning of each term; please refer to the Instructor Course Information Sheet.**

For online and hybrid courses, check your Instructor's Course Information Sheet for any required on-site meeting times. Please note, instructors may require tests to be taken at approved testing sites, and if you use a testing center other than those provided by HGTC, the center may charge a fee for its services.

Part V: Student Resources



THE STUDENT SUCCESS AND TUTORING CENTER (SSTC):

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

1. **Academic tutors** for most subject areas, **Writing Center support**, and **college success skills**.
2. Online **tutoring** and academic support resources.
3. Professional and interpersonal communication **coaching** in the EPIC Labs.

Visit the [Student Success & Tutoring Center](#) website for more information. To schedule tutoring, contact the SSTC at sstc@hgtc.edu or self-schedule in the Penji iOS/Android app or at www.penjiapp.com. Email sstc@hgtc.edu or call SSTC Conway, 349-7872; SSTC Grand Strand, 477-2113; and SSTC Georgetown, 520-1455, or go to the [Online Resource Center](#) to access on-demand resources.



STUDENT INFORMATION CENTER: TECH Central

TECH Central offers to all students the following **free** resources:

1. **Getting around HGTC**: General information and guidance for enrollment, financial aid, registration, and payment plan support!
2. Use the [Online Resource Center \(ORC\)](#) including Office 365 support, password resets, and username information.

3. **In-person workshops, online tutorials and more services** are available in Desire2Learn, Student Portal, Degree Works, and Office 365.
4. **Chat with our staff on TECH Talk**, our live chat service. TECH Talk can be accessed on the student portal and on TECH Central's website, or by texting questions to (843) 375-8552.

Visit the [Tech Central](#) website for more information. Live Chat and Center locations are posted on the website. Or please call (843) 349 – TECH (8324), Option #2.

STUDENT TESTING:

Proctoring can be accomplished either face-to-face at an approved site or online through our online proctoring service. To find out more about proctoring services, please visit the [Online Testing](#) section of the HGTC's Testing Center webpage.

The **Instructor 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 HGTC's [Accessibility and Disability Service webpage](#). The Accessibility and Disability staff 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, sex, national or ethnic origin, age, religion, disability, marital or family status, veteran status, political ideas, sexual orientation, gender identity, or pregnancy, childbirth, or related medical conditions, including, but not limited to, lactation in educational programs and/or activities.

TITLE IX REQUIREMENTS:

All students (as well as other persons) at Horry-Georgetown Technical College are protected by Title IX—regardless of their sex, sexual orientation, gender identity, part- or full-time status, disability, race, or national origin—in all aspects of educational programs and activities. Any student, or other member of the college community, who believes that he/she is or has been a victim of sexual harassment or sexual violence may file a report with the college's Chief Student Services Officer, campus law enforcement, or with the college's Title IX Coordinator, or designee.

*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).

INQUIRIES REGARDING THE NON-DISCRIMINATION/TITLE IX POLICIES:

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 Vice President for Student Affairs.

Dr. Melissa Batten, VP Student Affairs

Title IX Coordinator

Building 1100, Room 107A, Conway Campus

PO Box 261966, Conway, SC 29528-6066

843-349-5228

Melissa.Batten@hgtc.edu

Employee and applicant inquiries concerning Section 504, Title II, and Title IX and their application to the College may be directed to the Vice President for Human Resources.

Jacquelyne Snyder, VP Human Resources

EEO and Title IX Coordinator

Building 200, Room 212A, Conway Campus

PO Box 261966, Conway, SC 29528-6066

843-349-5212

Jacquelyne.Snyder@hgtc.edu