

ITT Technical Institute
NU205
Pharmacology
Onsite and Online Course

SYLLABUS

Credit hours: 4


Contact/Instructional hours: 40 (40 Theory Hours)

Prerequisite(s) and/or Corequisite(s):

Prerequisites: NU110 Clinical Nursing Concepts and Techniques I, GE127 College Mathematics I, GE258 Human Anatomy and Physiology I; Prerequisite or Corequisite: GE259 Human Anatomy and Physiology II

Course Description:

This course introduces pharmacological principles, emphasizing actions, interactions, and adverse effects using the nursing process framework to address nursing implications for each drug classification.



COURSE SUMMARY

COURSE DESCRIPTION

This course introduces pharmacological principles, emphasizing actions, interactions, and adverse effects using the nursing process framework to address nursing implications for each drug classification.

MAJOR INSTRUCTIONAL AREAS

1. Safe Medication Administration
2. The Nursing Process and Medication Administration
3. Classifications of Medications
4. Pharmacological Principles
5. Patient Teaching Related to Medications
6. Medications Used in Treatment of Specific Physical/Mental Conditions
7. Federal and State-Specific Regulations Related to Pharmacology

COURSE LEARNING OBJECTIVES

By the end of this course, you should be able to:

1. Describe the legal and ethical principles related to medication administration when providing compassionate, culturally sensitive care to diverse populations across the lifespan.
2. Define pharmacological terminology pertinent to specific categories and classifications of medications.
3. Explain the correct measures to be taken to ensure the prevention of medication errors.
4. Discuss principles of drug therapy for major drug groups in relation to drug selection, dosage, route, and use in special populations.
5. Use the nursing process to assess appropriate and inappropriate responses to drug therapy.
6. Evaluate the effect of medications on nutrition.
7. Recognize the interdisciplinary relationships between the nurse and other members of the health care team related to the planning and delivery of drug therapy.
8. Identify patient education strategies regarding pharmacological therapies as they relate to client health maintenance and health promotion.

COURSE OUTLINE

MODULE 1: INTRODUCTION TO PHARMACOLOGY AND NURSING PROCESS

COURSE LEARNING OBJECTIVES

- Define pharmacological terminology pertinent to specific categories and classifications of medications.
- Explain the correct measures to be taken to ensure the prevention of medication errors.
- Use the nursing process to assess appropriate and inappropriate responses to drug therapy.
- Identify patient education strategies regarding pharmacological therapies as they relate to client health maintenance and health promotion.

| MODULE LEARNING ACTIVITIES (UNGRADED) | OUT-OF-CLASS TIME |
|--|-------------------|
| Reading: Lilley, L., Collins, S., & Snyder, J., Chapters 1-7. | 8.5 hrs |
| Lesson: Study the lesson for this module. | 1 hr |
| Quiz: Prepare for Quiz 1. | 1.5 hrs |

| MODULE ASSESSMENTS (GRADED) | OUT-OF-CLASS TIME |
|--|-------------------|
| Homework Assignment 1: Submit the exercise titled "Pharmacological Principles." | 2 hrs |

Total Out-of-Class Activities: 13 Hours

MODULE 2: ANALGESIC AND NERVOUS SYSTEM MEDICATIONS

COURSE LEARNING OBJECTIVES COVERED

- Describe the legal and ethical principles related to medication administration when providing compassionate, culturally sensitive care to diverse populations across the lifespan.
- Define pharmacological terminology pertinent to specific categories and classifications of medications.
- Explain the correct measures to be taken to ensure the prevention of medication errors.
- Discuss principles of drug therapy for major drug groups in relation to drug selection, dosage, route, and use in special populations.
- Use the nursing process to assess appropriate and inappropriate responses to drug therapy.
- Identify patient education strategies regarding pharmacological therapies as they relate to client health maintenance and health promotion.

| MODULE LEARNING ACTIVITIES (UNGRADED) | OUT-OF-CLASS TIME |
|--|-------------------|
| Reading: Lilley, L., Collins, S., & Snyder, J., Chapters 10-15 and 18-21. | 16 hrs |
| Lesson: Study the lesson for this module. | 2 hrs |
| Quiz: Prepare for Quiz 2. | 1.5 hrs |

| MODULE ASSESSMENTS (GRADED) | OUT-OF-CLASS TIME |
|---|-------------------|
| Homework Assignment 2: Submit the exercise titled "Parkinson's Disease." | 2 hrs |
| Quiz: Take Quiz 1. | N/A |

Total Out-of-Class Activities: 21.5 Hours

MODULE 3: ANTI-INFECTIVES

COURSE LEARNING OBJECTIVES COVERED

- Describe the legal and ethical principles related to medication administration when providing compassionate, culturally sensitive care to diverse populations across the lifespan.
- Define pharmacological terminology pertinent to specific categories and classifications of medications.
- Discuss principles of drug therapy for major drug groups in relation to drug selection, dosage, route, and use in special populations.
- Evaluate the effect of medications on nutrition.
- Identify patient education strategies regarding pharmacological therapies as they relate to client health maintenance and health promotion.

| MODULE LEARNING ACTIVITIES (UNGRADED) | OUT-OF-CLASS TIME |
|--|-------------------|
| Reading: Lilley, L., Collins, S., & Snyder, J., Chapters 38-44. | 11 hrs |
| Lesson: Study the lesson for this module. | 2 hrs |
| Exam: Prepare for Exam 1. | 1.5 hrs |

| MODULE ASSESSMENTS (GRADED) | OUT-OF-CLASS TIME |
|---|-------------------|
| Homework Assignment 3: Submit the exercise titled "Anti-Infectives." | 2 hrs |
| Quiz: Take Quiz 2. | N/A |

Total Out-of-Class Activities: 16.5 Hours

MODULE 4: RESPIRATORY AND CARDIOVASCULAR DRUGS

COURSE LEARNING OBJECTIVES COVERED

- Describe the legal and ethical principles related to medication administration when providing compassionate, culturally sensitive care to diverse populations across the lifespan.
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- Discuss principles of drug therapy for major drug groups in relation to drug selection, dosage, route, and use in special populations.
- Use the nursing process to assess appropriate and inappropriate responses to drug therapy.
- Evaluate the effect of medications on nutrition.
- Recognize the interdisciplinary relationships between the nurse and other members of the health care team related to the planning and delivery of drug therapy.
- Identify patient education strategies regarding pharmacological therapies as they relate to client health maintenance and health promotion.

| MODULE LEARNING ACTIVITIES (UNGRADED) | OUT-OF-CLASS TIME |
|--|-------------------|
| Reading: Lilley, L., Collins, S., & Snyder, J., Chapters 22-27 and 36-37. | 13 hrs |
| Lesson: Study the lesson for this module. | 2 hrs |
| Quiz: Prepare for Quiz 3. | 1.5 hrs |
| Exam: Prepare for Exam 2. | 1 hr |

| MODULE ASSESSMENTS (GRADED) | OUT-OF-CLASS TIME |
|--|-------------------|
| Homework Assignment 4: Submit the exercise titled "Cardiovascular Medications." | 2 hrs |
| Exam: Take Exam 1. | N/A |
| Quiz: Take Quiz 3. | N/A |

Total Out-of-Class Activities: 19.5 Hours

MODULE 5: GI, GU, AND SENSORY DRUGS

COURSE LEARNING OBJECTIVES COVERED

- Describe the legal and ethical principles related to medication administration when providing compassionate, culturally sensitive care to diverse populations across the lifespan.
- Define pharmacological terminology pertinent to specific categories and classifications of medications.
- Explain the correct measures to be taken to ensure the prevention of medication errors.
- Discuss principles of drug therapy for major drug groups in relation to drug selection, dosage, route, and use in special populations.
- Use the nursing process to assess appropriate and inappropriate responses to drug therapy.
- Evaluate the effect of medications on nutrition.
- Recognize the interdisciplinary relationships between the nurse and other members of the health care team related to the planning and delivery of drug therapy.
- Identify patient education strategies regarding pharmacological therapies as they relate to client health maintenance and health promotion.

| MODULE LEARNING ACTIVITIES (UNGRADED) | OUT-OF-CLASS TIME |
|---|-------------------|
| Reading: Lilley, L., Collins, S., & Snyder, J., Chapters 28, 50-54, and 56-58. | 13.5 hrs |
| Lesson: Study the lesson for this module. | 2 hrs |
| Exam: Prepare for Exam 2. | 0.5 hr |
| Final Exam: Prepare for the final exam. | 5 hrs |

| MODULE ASSESSMENTS (GRADED) | OUT-OF-CLASS TIME |
|--|-------------------|
| Homework Assignment 5: Submit the exercise titled "Gastrointestinal Medications." | 2 hrs |
| Exam: Take Exam 2. | N/A |

Total Out-of-Class Activities: 23 Hours

MODULE 6: PSYCHIATRIC, ENDOCRINE, AND REPRODUCTIVE DRUGS

COURSE LEARNING OBJECTIVES COVERED

- Describe the legal and ethical principles related to medication administration when providing compassionate, culturally sensitive care to diverse populations across the lifespan.
- Define pharmacological terminology pertinent to specific categories and classifications of medications.
- Explain the correct measures to be taken to ensure the prevention of medication errors.
- Discuss principles of drug therapy for major drug groups in relation to drug selection, dosage, route, and use in special populations.
- Use the nursing process to assess appropriate and inappropriate responses to drug therapy.
- Evaluate the effect of medications on nutrition.
- Recognize the interdisciplinary relationships between the nurse and other members of the health care team related to the planning and delivery of drug therapy.
- Identify patient education strategies regarding pharmacological therapies as they relate to client health maintenance and health promotion.

| MODULE LEARNING ACTIVITIES (UNGRADED) | OUT-OF-CLASS TIME |
|--|-------------------|
| Reading: Lilley, L., Collins, S., & Snyder, J., Chapters 16-17 and 30-35. | 12.5 hrs |
| Lesson: Study the lesson for this module. | 2 hrs |
| Quiz: Prepare for Quiz 4. | 1.5 hrs |

| MODULE ASSESSMENTS (GRADED) | OUT-OF-CLASS TIME |
|--|-------------------|
| Homework Assignment 6: Submit the exercise titled "Diabetic Medications." | 2 hrs |
| Quiz: Take Quiz 4. | N/A |
| Final Exam: Take the final exam. | N/A |

Total Out-of-Class Activities: 18 Hours

EVALUATION AND GRADING

EVALUATION CRITERIA

The graded assignments will be evaluated using the following weighted categories:

| Grading Categories | Grading Weight |
|---------------------------------------|----------------|
| Homework Assignment | 15% |
| Quiz | 15% |
| Exam | 50% |
| Comprehensive Pharmacology Final Exam | 20% |
| Total | 100% |

GRADE CONVERSION

The final grades will be calculated from the percentages earned in the course, as follows:

| GRADE | PERCENTAGE |
|----------|------------|
| A (4.0) | 90–100% |
| B+ (3.5) | 85–89% |
| B (3.0) | 80–84% |
| C+ (2.5) | 75–79% |
| C (2.0) | 70–74% |
| D+ (1.5) | 65–69% |
| D (1.0) | 60–64% |
| F (0.0) | <60% |

LEARNING MATERIALS AND REFERENCES

REQUIRED COURSE MATERIAL

- Lilley, L., Collins, S., & Snyder, J. (2014). *Pharmacology and the nursing process (7th ed.)*. St. Louis, MO: Mosby.
- Lilley, L., Collins, S., & Snyder, J. (2013). *Study guide for pharmacology and the nursing process (7th ed.)*. St. Louis, MO: Mosby.
- Gahart, B. L., & Nazareno, A. R. (2016). *2016 Intravenous medications: A handbook for nurses and health professionals (32nd ed.)*. St. Louis, MO: Mosby.
- Skidmore-Roth, L. (2014). *Mosby's drug guide for nursing students, with 2014 Update (11th ed.)*. St. Louis: Mosby.

RECOMMENDED RESOURCES

- Ackley, B. J., & Ladwig, G. B. (2014). *Nursing diagnosis handbook: An evidence-based guide to planning care (10th ed.)*. St. Louis, MO: Mosby.
- Pagana, K. D., & Pagana, T. J. (2015). *Mosby's diagnostic and laboratory test reference (12th ed.)*. St. Louis, MO: Mosby.

INSTRUCTIONAL METHODS AND TEACHING STRATEGIES

The curriculum employs a variety of instructional methods that support the course objectives while fostering higher cognitive skills. These methods are designed to encourage and engage you in the learning process in order to maximize learning opportunities. The instructional methods include but are not limited to lectures, collaborative learning options, use of technology, and hands-on activities.

To implement the above-mentioned instructional methods, this course uses several teaching strategies, such as lectures, collaborative learning options, and hands-on activities. Your progress will be regularly assessed through a variety of assessment tools including homework assignments, quizzes, exams, and the comprehensive pharmacology final exam.

OUT-OF-CLASS WORK

For purposes of defining an academic credit hour for Title IV funding purposes, ITT Technical Institute considers a quarter credit hour to be the equivalent of: (a) at least 10 clock hours of classroom activities and at least 20 clock hours of outside preparation; (b) at least 20 clock hours of laboratory activities; or (c) at least 30 clock hours of externship, practicum or clinical activities. ITT Technical Institute utilizes a “time-based option” for establishing out-of-class activities which would equate to two hours of out-of-class activities for every one hour of classroom time. The procedure for determining credit hours for Title IV funding purposes is to divide the total number of classroom, laboratory, externship, practicum and clinical hours by the conversion ratios specified above. A clock hour is 50 minutes.

A credit hour is an artificial measurement of the amount of learning that can occur in a program course based on a specified amount of time spent on class activities and student preparation during the program course. In conformity with commonly accepted practice in higher education, ITT Technical Institute has institutionally established and determined that credit hours awarded for coursework in this program course (including out-of-class assignments and learning activities described in the “Course Outline” section of this syllabus) are in accordance with the time-based option for awarding academic credit described in the immediately preceding paragraph.

ACADEMIC INTEGRITY

All students must comply with the policies that regulate all forms of academic dishonesty or academic misconduct. For more information on the academic honesty policies, refer to the Student Handbook and the Course Catalog.

(End of Syllabus)