

**INTERAMERICAN UNIVERSITY OF PUERTO RICO
METROPOLITAN CAMPUS
SCIENCE AND TECHNOLOGY FACULTY
CARMEN TORRES DE TIBURCIO NURSING DEPARTMENT**

SYLLABUS

I GENERAL INFORMATION

Tcourse title	:	PHARMACOLOGIC ASPECTS
Code and Number	:	NURS 1130
Credits	:	THREE (3)
Academic Term	:	
Teacher	:	
Office Location and Hours	:	
Office telephone	:	(787) 250-1912 EXT. 2159, 2202
Email	:	

II. DESCRIPTION

Discussion of aspects relevant to the study of pharmacology including biochemical and physiological concepts, research and legal aspects. Using the principles and skills of dosage. Application of the nursing process in medication administration. It requires a total of 45 hours of lecture and 30 hours of open presential or virtual lab. Concurrent with NURS 1111 NURS 1112.

III. OBJECTIVES

TREMINAL OBJECTIVES

It is expected that, at the end of the program, the student will be able to:

1. Use communication skills, critical thinking and the use of technology to maintain the quality of care offered to the customer. (AASN)
2. Apply skills of communication, collaboration, critical thinking and the use of technology as a provider and coordinator of care and as a future member of the profession. (BSN)

GENERAL OBJECTIVES

It is expected that, at the end of the course, the student will be able to:

1. Use dosing principles and skills for safe and efficient medication administration **(Safety).**
2. Apply the Nursing Process with a humanistic approach in the safe administration of medications considering their needs, values, preferences and cultural beliefs. **(Humanistic Care)**
3. Administer drugs based on patient needs and cultural beliefs. **(Culture)**
4. Use effective communication and technology skills when offering quality patient/client care and with the interdisciplinary team. **(TEAM STEPS).**

5. Apply evidence-based knowledge for the decision-making process in medication administration when offering nursing care to the patient/client and family. **(Research)**
6. Apply the general concepts of pharmacology and its implications for a safe and efficient nursing practice **(Safety)**.

IV. COURSE CONTENT

A. BASIC CONCEPTS OF PHARMACOLOGY

1. Historical Background of Pharmacology
2. Definition of pharmacological terms
3. Drug Regulation
 - a. FDA (Food and Drug Administration / Food and Drug Administration)
 - b. Evidence-Based Research
4. drug category
 - a. Therapeutic Classification
 - b. Pharmacological Classifications
5. Drug names:
 - a. Generic
 - b. Commercial
6. Controlled Substances Act of 1970.
7. Preparedness for emergencies

B. ERROR PREVENTION AND RISK REDUCTION IN ADMINISTRATION

1. “To Err is Human”.
2. “National Patient Safety Goals” in medication administration

C. CULTURAL ASPECTS

1. Herbal and Complementary Therapy
2. National Institute on Minority Health and Health Disparities (NIMHD) - <http://www.nimhd.nih.gov/>; <https://ccnm.thinkculturalhealth.hhs.gov/>.

D. NURSING PROCESS IN THE SAFE ADMINISTRATION OF MEDICATIONS

1. Role and responsibility of the nursing professional in medication administration.
2. The right ones in the safe administration of medications.
3. Application of the Nursing Process.
4. Special Considerations
 - a. geriatrics
 - b. Pediatric

E. MECHANISMS OF ACTION OF MEDICINES

1. Pharmacokinetics
2. pharmacodynamics
3. drug reactions

F. THERAPEUTIC CATEGORIES OF FUNCTIONAL HEALTH PATTERNS

1. Pattern: Nutritional-Metabolic
2. Pattern: Elimination
3. Pattern: Health Perception and Management
4. Pattern: Cognitive-Perceptual
5. Pattern: Activity-exercise

DOSAGE CONTENT

A. PRINCIPLES AND SKILLS IN THE ADMINISTRATION OF MEDICATIONS AND POSOLOGY

1. Interpretation of medical orders – Parenteral
2. Interpretation of drug labels and packaging – Intravenous
3. Dosing system, transcription and documentation in medication administration
4. Equipment and materials necessary for the preparation of the dose
5. Topical and oral medications
 - a. Solid and liquid dose calculation
 - b. Oral and mucous membrane drug delivery
6. Parenteral drugs
 - a. Injectable liquids
 - b. Management Techniques
7. Intravenous
 - a. IV calculation
8. Transcript and documentation of medication administration

V. ACTIVITIES

- A. Small and large group discussion
- B. Digital Assignments (Blackboard)
- C. Digital Study Guides (Blackboard)
- D. Assigned readings
- E. Use of anatomical models
- F. Simulated drug administration practice
- G. ATI practice

VI. EVALUATION

Criteria	Points	Percent
Partial exam #1	100	15%
Partial exam #2	100	15%
Partial exam #3	100	15%
Comprehensive Final Exam # 4	100	20%
Academic activities	100	10%
Dosage Modules	100	10%
Documentation	100	5%

ATI	100	5%
Contact hours	100	5%
TOTAL	900	100

VII. SPECIAL NOTES

A. Auxiliary services or special needs

All students who require auxiliary services or special assistance must request these at the beginning of the course or as soon as they know that they need them, through the proper registry, in the Guidance Office with Dr. María de los Ángeles Cabello at email mcabello@metro.inter.edu

B. Honesty, fraud, and plagiarism

Dishonesty, fraud, plagiarism, and any other inappropriate behavior in relation to academic work constitutes major infractions sanctioned by the General Student Regulations. The major infractions, as stated in the General Student Regulations, may have as a consequence, suspension from the University for a definite period greater than one year or the permanent expulsion from the University, among others sanctions.

C. Use of electronic devices

Cellular telephones and any other electronic device that could interrupt the teaching and learning processes or alter the environment leading to academic excellence will be deactivated. Any urgent situation will be dealt with, as appropriate. The handling of electronic devices that allow students to access, store or send data during evaluations or examinations is prohibited.

D. Compliance with the Provisions of Title IX

The Federal Higher Education Act, as amended, prohibits discrimination because of sex in any academic, educational, extracurricular, and athletic activity or in any other program or function, sponsored or controlled by a higher education institution, whether or not it is conducted within or outside the property of the institution if the institution receives federal funds.

In harmony with current federal regulations, in our academic unit an Assistant Coordinator of Title IX has been designated to offer assistance and orientation in relation to any alleged incident constituting discrimination because of sex or gender, sexual harassment or sexual aggression. The Assistant Coordinator, Mr. George Rivera, can be reached by phone at (787) 250-1912 extension 2147, or by e-mail grivera@metro.inter.edu.

The Normative Document Titled **Norms and Procedures to Deal with Alleged Violations of the Provisions of Title IX** is the document that contains the institutional rules to direct any complaint that appears to be this type of allegation. This document is available in the Web site of Inter American University of Puerto Rico (www.inter.edu).

VII. EDUCATIONAL RESOURCES COURSE TEXTBOOK

Adams, M.P. Holland, N. & Urban C. (2020). *Pharmacology for nurses- A Physiopathologic Approach* 6th ed. New Jersey: Pearson Prentice Hall. ISBN-13: 9780135218334

Adams, MP, Holland, J.L.. *Student Workbook and Resource Guide for Pharmacology for Nurses: A Pathophysiologic Approach* 5th ed. New Jersey: Pearson Prentice Hall. ISBN-13: 978-0134244631

Buchholz, S, & Henke, Sister G. (2015). *Henke's MED-MATH: Dosage Calculation, Preparation & Administration* (8th ed.). Lippincott Williams & Wilkins. ISBN 978-1496302847

Karch, Amy M., (2015) *Lippincott's Nursing Drug Guide*. Philadelphia: Lippincott Williams & Wilkins. ISBN-13: 978-1469839370

McGraw-Hill Saunders (2014) *Comprehensive Review NCLEX-RN Examination* Silvestri 6th ed. Elsevier Mosby ISBN 978-1-4557-2755-1

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