

SCHOOL OF HEALTH SCIENCES
HEALTH INFORMATION TECHNOLOGY

COURSE OUTLINE

I. COURSE DESCRIPTION:

HM120 Pathophysiology and Pharmacology

C-3, P-0, Cr-3

This course covers pathophysiological, pharmacological, therapeutic, and diagnostic aspects of medicine. It includes concepts and medical word components for body systems and disorders encountered in healthcare. Pathophysiology of the normal body systems is covered. Topics include includes pharmacological agents, diagnostic tests and interventions, pharmacological intervention selection, and value of laboratory tests. (Online Only)

Three class hours weekly.

Prerequisites: BI110 Survey of Anatomy and Physiology or BI216 Human Anatomy and Physiology 1; HM100 Medical Terminology for Health Professionals.

II. MATERIALS:

Text and Learning Materials: Turley, Susan. *Understanding Pharmacology for Health Professionals*. 5th edition. ISBN: 9780135145708. Pearson. Zelman, Mark. *Human Disease*. 8th edition. ISBN: 9781323293997. Pearson.

III. EVALUATION METHODS:

Students will be evaluated in the following manner:

Written Assignment/Project	25%
Exams	25%
Final Comprehensive Exam	25%
Attendance /Assignments	25%

IV. STUDENT LEARNING OUTCOMES:

Upon completion of this course the student will be able to:

1. Define pathophysiological, pharmacological, therapeutic, and diagnostic aspects of medicine.
2. Explain concepts and medical word components for body systems and disorders encountered in health care.
3. Describe the pathophysiology of cardiovascular, circulatory, digestive, endocrine, integumentary, lymphatic and immune, musculoskeletal, nervous, reproductive, special senses, and urinary systems.
4. Identify diagnostic tests, pharmacological agents, and therapeutic procedures used to assess and treat disease processes, and determine the value of each.

5. Discuss pharmacological interventions, determine effectiveness through monitoring, and identify possible adverse reactions.
6. Describe the advantages and disadvantages of the different forms in which drugs are manufactured and routes of drug administration.
7. List the steps of the drug cycle, and distinguish among local, systemic, therapeutic, allergic, and side effects of drugs.
8. Demonstrate the proper use of drug reference materials.

V. MAJOR TOPICS:

1. Mechanisms of Disease
2. Introduction to Disease
3. Immunity, Inflammation, and Immune Disorders
4. Infectious Diseases and Infection Control
5. Mental Health and Cognitive Disorders
6. Neoplasms
7. Heredity and Disease
8. Diseases of Body Systems
9. Cardiovascular
10. Circulatory
11. Digestive
12. Endocrine and Special Senses
13. Genitourinary
14. Integumentary
15. Lymphatic and Immune
16. Musculoskeletal
17. Nervous
18. Reproductive
19. Introduction to Pharmacology
20. Drug Design, Testing, Manufacturing and Marketing
21. Drug Forms
22. Routes of Administration and the Drug Cycle
23. Using Drugs Therapeutically
24. The Prescription
25. Drugs pertaining to each body system
26. Anti-Infective Drugs
27. Chemotherapy Drugs
28. Analgesic Drugs and Anesthesia Drugs