MOHAWK VALLEY COMMUNITY COLLEGE, UTICA-ROME, NY

HEALTH INFORMATION TECHNOLOGY

COURSE OUTLINE

1. 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 health care. Pathophysiology of the normal body systems is covered. Topics include pharmacological agents, diagnostic tests and interventions, pharmacological intervention selection, and value of laboratory tests. (Online Only).

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

1. 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, immune, musculoskeletal, nervous, reproductive, special sense, 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.
9. MAJOR TOPICS:
10. Mechanisms of Disease
11. Introduction to Disease
12. Immunity, Inflammation, and Immune Disorders
13. Infectious Diseases and Infection Control
14. Mental Health and Cognitive Disorders
15. Neoplasms
16. Heredity and Disease
17. Disease of Body Systems
18. Cardiovascular
19. Circulartory
20. Digestive
21. Endocrine and Special Senses
22. Genitourinary
23. Integumentary
24. Lymphatic and Immune
25. Musculoskeletal
26. Nervous
27. Reproductive
28. Introduction to Pharmacology
29. Drug Design, Testing, Manufacturing and Marketing
30. Drug Forms
31. Routes of Administration and the Drug Cycle
32. Using Drugs Therapeutically
33. The Prescription
34. Drugs Pertaining to Each Body System
35. Anti-Infective Drugs
36. Chemotherapy Drugs
37. Analgesic Drugs and Anesthesia Drugs