



# North Central Michigan College

## Master Course Syllabus

### PART 1:

Course Name: Pharmacology

Course Number: AH 280

Credit Hrs. 3      Lecture Hrs. 3      Lab Hrs. 0      Clinical Hrs. 0      Variable Hrs.

Total Hours of Instruction: 3      Total Contact Hours: 52.8  
(Total Contact hour's formula: (lecture hrs. + lab hrs. + clinical hrs) x 17.6)

#### Course Description:

An introduction to the general principles of pharmacotherapeutic agents and how they are used in the treatment of health promotion and illness, maintenance and restoration of wellness in diverse individuals across the lifespan. Instruction focuses on the effect of specific drugs on body systems including the: autonomic nervous, central nervous, cardiovascular, respiratory, endocrine, and immune systems. In addition, the pharmacology of antibiotics and chemotherapeutics are covered. Special emphasis is on the principles of pharmacokinetics and pharmacodynamics in the treatment of selected illnesses with respect to practice of the health care provider. Concepts of safe administration and monitoring the effects of pharmacotherapeutic agents are addressed. Course primarily designed for nursing, however may meet pharmacology requirements for other allied health professionals.

Prerequisite (s): BIO 235 and BIO 236

Co-requisite (s): None

#### Course Objectives:

Upon completion of the course, the student will:

1. Discuss the role of pharmacology in practice of the health care provider and necessity of lifelong learning.
2. Identify legal and regulatory issues regarding drugs, as they relate to practice of health care providers.
3. Apply principles of pharmacology to specific drug and client health contexts across multiple factors including age span, cultural, gender, race, special populations and legal/ethical issues.
4. Describe the pharmacological application, including beneficial and undesirable effects of prototype drugs from the following categories: autonomic nervous, central nervous, cardiovascular, respiratory, endocrine, and immune systems.
5. Describe the general principles of pharmacotherapeutics, pharmacokinetics, and pharmacodynamics in wellness promotion and illness prevention and treatment.
6. Describe the problems commonly encountered during drug therapy with emphasis on their prevention and/or resolution.

Reasonable accommodations can be provided for students with documented disabilities. Please contact Learning Support Services to arrange for these (231)348-6687 or (231)348-6817, Room 533 SCRC.



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7. Discuss health care provider's responsibility of patient education as it relates to compliance, positive outcomes and untoward events.

## PART 2:

### Course Objectives and Linked Lumina DQP Outcomes

1. Discuss the role of pharmacology in practice of the health care provider and necessity of lifelong learning. DQP # 6
2. Identify legal and regulatory issues regarding drugs, as they relate to practice of health care providers. DQP # 8
3. Apply principles of pharmacology to specific drug and client health contexts across multiple factors including age span, cultural, gender, race, special populations and legal/ethical issues. DQP # 1, 5, 7
4. Describe the pharmacological application, including beneficial and undesirable effects of prototype drugs from the following categories: autonomic nervous, central nervous, cardiovascular, respiratory, endocrine, and immune systems. DQP # 1, 2, 10
5. Describe the general principles of pharmacotherapeutics, pharmacokinetics, and pharmacodynamics in wellness promotion and illness prevention and treatment. DQP # 1, 2
6. Describe the problems commonly encountered during drug therapy with emphasis on their prevention and/or resolution. DQP #7, 8, 10
7. Discuss health care provider's responsibility of patient education as it relates to compliance, positive outcomes and untoward events. DQP # 6, 7, 10

### Suggested Methods of Instruction:

Lecture material, discussion boards, videos, case studies, self-study modules, interactive learning activities

### Suggested Methods of Assessment and Evaluation:

Tests, quizzes, discussion boards, HESI

### Adopted Text at Time of Course Adoption/Revision:

Lilley, L. L., Collins, S. R., & Snyder, J. S. (2017). *Pharmacology and the Nursing Process (8<sup>th</sup> ed)*. St. Louis, MO: Elsevier.

### Topics Covered During the Semester:

*Sequence of topics and time allowance are at the discretion of the instructor*

Week 1: Pharmacologic Basics

Week 2: Central Nervous System; Antiinflammatory and Anti-Gout Drugs

Week 3: Central Nervous System

Week 4: Exam

Week 5: Autonomic Nervous System

Week 6: Respiratory System

Week 7: Cardiovascular System

Week 8: Exam

Week 9: Cardiovascular and Renal Systems



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- Week 10: Endocrine System  
Week 11: Antiinfective and Antiinflammatory  
Week 12: Exam  
Week 13: Chemotherapy, Immune Modifiers, Immunosuppressant  
Week 14: Immunizing, Gastrointestinal System  
Week 15: Nutrition, Dermatologic  
Week 16: Final Exam

Part 1 & Part 2 approved by CRDAP on: 10/27/17

Part 2 approved by AD: \_\_\_\_\_ Date: \_\_\_\_\_

Part 2 approved by CRDAP Chair: \_\_\_\_\_ Date: \_\_\_\_\_

Rev02/15

## **PART 3:**

**LUMINA DQP OUTCOMES** – Use this reference sheet for **PART 2** of Master Course Syllabus.

### Specialized Knowledge

1. Describes the scope and principal features of the field of study, citing at least some of its core theories and practices, and offers a similar explication of at least one related field.
2. Illustrates contemporary terminology used in the field.
3. Generates substantially error-free products, reconstructions, data, juried exhibits or performances as appropriate to the field.

### Broad Integrative Knowledge

4. Describes how existing knowledge or practice is advanced, tested and revised
5. Describes and examines a range of perspectives on key debates and their significance both within the field and in society.
6. Illustrates core concepts of the field while executing analytical, practical or creative tasks.
7. Selects and applies recognized methods of the field in interpreting characteristic discipline-based problems.
8. Assembles evidence relevant to characteristic problems in the field, describes the significance of the evidence, and uses the evidence in analysis of these problems.
9. Describes the ways in which at least two disciplines define, address and interpret the importance of a contemporary challenge or problem in science, the arts, society, human services, economic life or technology.

### Intellectual Skills – Analytic Inquiry

10. Identifies, categorizes and distinguishes among elements of ideas, concepts, theories and/or practical approaches to standard problems.

### Intellectual Skills – Use of Information Resources

11. Identifies, categorizes, evaluates and cites multiple information resources necessary to engage in projects, papers or performance in his or her program.

### Intellectual Skills – Engaging Diverse Perspectives

12. Describes how knowledge from different cultural perspectives would affect his or her interpretations of prominent problems in politics, society, the arts and/or global relations.

### Intellectual Skills – Communication Fluency

13. Presents accurate calculations and symbolic operations, and explains how such calculations and operations are used in either his or her specific field of study or in interpreting social and economic trends.
14. Presents substantially error-free prose in both argumentative and narrative forms to general and specialized audiences.

### Applied Learning



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15. Describes in writing at least one substantial case in which knowledge and skills acquired in academic settings are applied to a challenge in a non-academic setting; applies that learning to the question; and analyzes at least one significant concept or method related to his or her course of study in light of learning outside the classroom.
16. Locates, gathers and organizes evidence on an assigned research topic addressing a course-related question or a question of practice in a work or community setting; offers and examines competing hypotheses in answering the question.

## Civic Learning

17. Describes his or her own civic and cultural background, including its origins and development, assumptions, and predispositions.
18. Describes diverse positions, historical and contemporary, on selected democratic values or practices, and presents his or her own position on a specific problem where one or more of these values or practices are involved.
19. Takes an active role in a community context (work, service, co-curricular activities, etc.), and examines the civic issues encountered and the insights gained from the community experience.

The Degree Qualifications Profile was adopted by CRDAP: April 11, 2012