

Hagerstown Community College

MASTER SYLLABUS

COURSE: PHR-110 Pharmacology and Therapeutics

DATE: Fall, 2017

INSTRUCTOR:

COURSE DESCRIPTION: This course is designed to provide students with the knowledge of common drugs, both brand and generic names, used in pharmacy settings, as well as place major drugs into correct therapeutic categories, identify their uses, routes of administration, and formulations. The student will also be able to identify the basic interactions of chemicals on living organisms relating to major body systems; additionally, bacterial infections, fungal infections, and viral infections and associated therapeutic agents will be reviewed. Total of 75 hours of lecture.

TEXTBOOK(S):

Hitner, H. & Nagle, B.T. (2012). Pharmacology: An Introduction. 7th ed. New York, NY: McGraw-Hill Education. ISBN# 978-0073513812.

McEvoy, T.A. & Generali, J.A. (2016). The Pharmacy Technician's Pocket Drug Reference (Alpha Pharmacy Technician Training). 9th ed. American Pharmacists Association. ISBN# 978-1582122670.

STUDENT LEARNING OUTCOMES: Upon successful completion of this course, students will be able to:

1. Demonstrate an understanding of terminology associated with the fundamentals of pharmacology;
2. Identify the basic interactions of chemicals on living organisms relating to major body systems; additionally, bacterial infections, fungal infections, and viral infections and associated therapeutic agents;
3. Understand the pharmacologic and pharmacokinetic indications of prescription drugs, as well as over-the-counter drugs on the human body, and their use in disease states and conditions;
4. Explain key factors associated with pharmacokinetic such as first pass effect and the importance of the blood-brain barrier, routes of drug elimination, elimination half-life, and the importance of bioavailability to generic drug substitutions;
5. Explain the drug-receptor theory as well as compare and contrast agonists, antagonists, and partial agonist;
6. Explain drug-drug interactions, drug to food interactions, drug to disease contraindications and medication errors;
7. Demonstrate knowledge of basic concepts of pharmacokinetics including the 6 stages of drug kinetics;

8. Understand the use and side effects of prescription and non-prescription medications used to treat common disease states;
9. Identify the routes of administration (oral, parenteral, topical, transdermal and transmucosal, nasal and inhalation, sublingual, and buccal, rectal, vaginal, optic, ocular, etc.);
10. Explain the importance and wellness promotion and disease prevention practices, such as use of health screenings, health practices and environmental factors that impact health; and adverse effects of alcohol, tobacco, illegal and legal drugs;
11. Identify the various factors that might affect drug activity, such as age, body weight, gender, race, pregnancy, time of administration, rate of metabolism, hypersensitivity, disease states and preexisting conditions, and drug interactions;
12. Demonstrate an understanding of basic principles of patient assessment;
13. Demonstrate an understanding of drug therapy in special patient populations; and
14. Demonstrate proficiency in identifying the Brand and Generic names of the top 200 drugs along with the indications and prime side effects and precautions associated with these drugs.

MINIMUM CLOCK HOURS REQUIRED FOR THIS COURSE:

To earn one academic credit at HCC, students are required to complete a minimum of 37.5 clock hours (45 fifty-minute “academic” hours) of coursework per semester. Those hours of coursework may be completed through a combination of hours within the classroom and hours outside the classroom. Certain courses may require more than the 37.5 minimum hours of coursework per credit. For most classes, students should expect to do at least 2 hours of coursework outside of class for each hour of in-class coursework.

	DIRECT Faculty Instruction In-class 75 hours required	Student Work Out of Classroom 150 hours required
In-class “lecture”	70	
Reading Chapters		90 hours
Quizzes, Activities & Homework Assignments	Included in lecture time	30 hours
Pharmacy Project	Included in lecture time	10 hours
4 lecture exams & 1 cumulative final exam	5 hours	20 hours
Total Hours	75 hours	150 hours

SERVICES FOR STUDENTS WITH DISABILITIES: Students may receive reasonable accommodations if they have a diagnosed disability and present appropriate documentation. Students seeking accommodations are required to contact the Disability Support Services (DSS) office as early as possible. Students may contact a DSS staff member for an appointment at dss@hagerstowncc.edu or at 240-500-2530.