

MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE

COURSE OUTLINE

DEPT. PHRM

COURSE NUMBER: 1120

NUMBER OF CREDITS: 3

Lecture: 2 Lab: 1 OJT 0

Course Title:
Pharmacology for Technicians II

Catalog Description:
Pharmacology for Technicians II introduces pharmacy technician students to the general principles of pharmacology. Drugs are discussed in the context of drug classes, mechanics of action, disease types, and body systems. The goal is to provide pharmacy technicians with sufficient background information so that they will be able to play a key role in avoiding dispensing errors. Although emphasis will be given to the approximately 200 most commonly prescribed drugs, many more drugs will be discussed during the semester.

Prerequisites or Necessary Entry Skills/Knowledge:
PHRM 1115

FULFILLS MN TRANSFER CURRICULUM AREA(S) (*Leave blank if not applicable*)

- ☐ Goal 1: Communication: By meeting the following competencies:
- ☐ Goal 2: Critical Thinking: By meeting the following competencies:
- ☐ Goal 3: Natural Sciences: By meeting the following competencies:
- ☐ Goal 4: Mathematics/Logical Reasoning: By meeting the following competencies:
- ☐ Goal 5: History and the Social and Behavioral Sciences: By meeting the following competencies:
- ☐ Goal 6: The Humanities and Fine Arts: By meeting the following competencies:
- ☐ Goal 7: Human Diversity: By meeting the following competencies:
- ☐ Goal 8: Global Perspective: By meeting the following competencies:
- ☐ Goal 9: Ethical and Civic Responsibility: By meeting the following competencies:
- ☐ Goal 10: People and the Environment: By meeting the following competencies:

Topics to be Covered
The basic concepts of pharmacology will be discussed in the context of disease types and drug classes used to treat these diseases.
Many medications will be covered, but emphasis will be placed on learning the most common drugs, including the brand/generic names, side effects and therapeutic uses.

Student Learning Outcome

Examine principles of drug action in the body and individual cells, including body absorption and distribution in relation to therapeutic blood levels and the process of clearing systemically dispersed agents through metabolism and elimination

Anticipate how best to promote safety and avoid medication errors through drug label and medication order literacy skills. Be able to communicate effectively with patients and other members of the healthcare team. Implement appropriate patient warning labels to promote thorough understanding of drug regimen requirements by patients and medical staff.

Anticipate possible side effects and related dispensing strategy for each drug class as well as for specific agents. Analyze labeling requirements for various classes of pharmaceuticals and cautions when dispensing based on thorough understanding of interactions between classes of pharmaceuticals, individual agents, and natural supplements.

Describe ways various classes of anti-infective drugs work against microorganisms and identify uses of these drugs in eliminating specific microorganisms from the body.

Explain the action of neurotransmitters in the nervous system, relate classes of pharmaceuticals that affect or change neurotransmitter action, and describe therapeutic results obtained with the various neurological agent classes.

Explain principles of how various classes of pharmaceuticals act when utilized in aiding respiratory gas exchanges, circulating blood pressure and cardiac rhythms, and blood filtration.

Compare action of pharmaceutical agents when applied to the digestive system and examine, compare, and describe how these agents affect other physiological processes (e.g., blood pressure and sugar levels).

Define the action of the endocrine glands and hormones, delineate hormone supplement and replacement therapies, and compile adverse effects of inadequate and excess administration.

Identify the physiological action and deficiency symptoms of vitamin classes, explore natural supplements and potential therapeutic value, and examine the use of natural supplements in conjunction with prescription medications.

Is this course part of a transfer pathway: Yes ☐ No ☒

*If yes, please list the competencies below

Revised Date: 1/24/2022