Credits: 3

Course Prefix/Number/Title: PHRM215 – Introduction to Pharmacology

Course Description: This course provides a framework for understanding medications and their administration. It is appropriate for a variety of health care practitioners, including nurses, medical assistants, pharmacy technicians, and health professionals seeking continuing education. Students are introduced to an extensive body of knowledge within a limited time frame through a concise yet adaptable format. They will examine drug classifications through their indications, side effects, precautions, and interactions, and become familiar with the steps in calculating dosages and administering medications through various routes.

Prerequisites:

- AH 134 Medical Disorders
- AH 171 Medical Terminology

Course Objectives:

- Classify the sources of drugs, examine their pharmacokinetic processes, and analyze the variables that affect drug actions and effects.
- Understand the principles of safe drug administration, calculations, and pharmacological considerations throughout the lifespan.
- Apply the principles that support the moral, ethical, and legal responsibilities of the health care practitioner in administering medications safely and accurately.
- Identify the actions and appropriate doses of commonly used medications for common diseases and disorders of each body system.
- Identify drug interactions, side effects, adverse reactions, and contraindications of commonly used medications and appropriate interventions.
- Interpret medication orders correctly, and state the proper procedures for documenting drug administration and for reporting medication errors.
- Understand the laws governing drug administration and legal implications.

Instructor: Kim D McDaniel MSN, RNC-OB

Office Hours: online

Email: Use the email located within the course.

The instructor checks course email at least once a day Monday through Friday, excluding holidays. A response can be expected within 24 hours, except on weekends. The instructor will respond to weekend emails on Monday.

Lecture/Lab Schedule: There is no required lab for this course.

NOTE: Medication administration by non-nursing personnel is regulated according to the policies of the healthcare facility in which he/she is employed. All healthcare personnel who administer medications are responsible for knowing the law(s) that pertain to medication administration.

Textbook(s):

- Required
 - Essentials of Pharmacology for Health Professions (8th edition) by Bruce J. Colbert & Ruth Woodrow. ISBN: 978-1-337-39589-2
 - Study Guide to Accompany Essentials of Pharmacology for Health Professions (8th edition) by Bruce J. Colbert & Ruth Woodrow. ISBN: 978-1-337-39590-8
 - A recent drug handbook of choice. Healthcare, including medications, is in constant change; therefore, it is important to work from a current drug book.
 Some people prefer to use an app for their phone or tablet. This is acceptable provided the app can be updated with current information.

Course Requirements:

- The student is expected to read the assigned chapters for the week as well as any lecture slides that are posted by the instructor.
- Check email and the announcements daily.
- It is the student's responsibility to participate and provide feedback on discussion questions. Discussion responses are to be posted no later than Saturday night of the week assigned.
- All students are expected to display critical thinking throughout the course in the assignments, exams and on the discussion board.
- Students need to know the basics of how to calculate drug dosages, as the information may appear on exams.
- Students are expected to behave in a professional manner. Inappropriate communication will not be tolerated.

Tentative Course Outline:

Week 1

- Chapter 1 Consumer Safety and Drug Regulations
- Chapter 2 Drug Names and References

Week 2

- Chapter 3 Sources and Bodily Effects of Drugs
- Chapter 4- Medication Preparations and Supplies

Week 3

- Chapter 5- Abbreviations and Systems of Measurement
- Chapter 6- Safe Dosage Calculations

Week 4

- Chapter 7- Responsibilities and Principles of Drug Administration
- Exam 1 (Chapters 1-7)

Week 5

- Chapter 8 Administration by the Gastrointestinal Route
- Chapter 9 Administration by the Parenteral Route

Week 6

- Chapter 10 Poison Control
- Chapter 11 Vitamins, Minerals, and Herbs

Week 7

- Chapter 12 Skin Medications
- Chapter 13 Autonomic Nervous System Drugs

Week 8

- Chapter 14 Antineoplastic Drugs
- Exam 2 (Chapters 8-14)

Week 9

- Chapter 15 Urinary System Drugs
- Chapter 16 Gastrointestinal Drugs
- Week 10
 - Chapter 17 Anti-infective Drugs
 - Chapter 18 Eye and Ear Medications

Week 11

- Chapter 19 Analgesics, Sedatives, and Hypnotics
- Chapter 20 Psychotropic Medications, Alcohol, and Drug Abuse

Week 12

- Chapter 21 Musculoskeletal and Anti-inflammatory Drugs
- Exam 3 (Chapters 15-21)

Week 13

- Chapter 22 Anticonvulsants, Antiparkinsonian Drugs, and Agents for Alzheimer's Disease
- Chapter 23 Endocrine System Drugs

Week 14

Chapter 24 – Reproductive System Drugs

Week 15

- Chapter 25 Cardiovascular Drugs
- Chapter 26 Respiratory System Drugs and Antihistamines

Week 16

- Chapter 27 Drugs and Older Adults
- Exam 4 (Chapters 22-27)
- FINAL EXAM

General Education Goals/Objectives: This course is not a general education course.

Relationship to Campus Theme:

This course specifically relates to the *Technology* aspect of the campus' focus. Students will recognize how technology plays an important part in the healthcare arena, including the evolution of computerized systems to improve patient safety in the use of pharmacology and medication administration.

Classroom Policies:

- This is a 16-week course and ends at 11:59 p.m. central time on the last Friday of the term.
- Assignments are indicated within the course contents and are mandatory. All assignments must be submitted by the due date listed within the course (*usually* Saturday night at 11:59 p.m. central time of the week they are assigned). A grade of zero will be given for uncompleted and/or late assignments.
- All exams are timed. When time has expired, the exam ends and submits automatically. The student should prepare prior to taking the exams.
- The student may NOT use the textbook, notes, or other resources when taking exams. This includes receiving assistance from other students, family, friends or acquaintances. This is considered cheating and will be handled according to the *Academic Integrity* policy.
- The instructor reserves the right to post additional assignments if she deems necessary for student learning.
- All students are required to complete an online evaluation (survey) at the end of the course.
- Students are encouraged to use student resources found on the publisher's website to assist in studying. The website is located at: <u>www.cengagebrain.com</u>

Student Email Policy: Dakota College at Bottineau is increasingly dependent upon email as an official form of communication. A student's campus-assigned email address will be the only one recognized by the campus for official mailings. The liability for missing or not acting upon important information conveyed via campus email rests with the student.

Course Evaluation Method: Final grades are based on the total number of points received for the course.

Grading Scale: A (90 – 100%) B (80 – 89%) C (70 – 79%) D (60 – 69%) F (0 – 59%)

Academic Integrity: All students are expected to adhere to the highest standards of academic integrity. Students must complete all work themselves. Cheating or plagiarism is a serious offense and is subject to disciplinary action by the instructor and the college administration. Please see campus policies online. All references used must be properly cited using APA format.

Disabilities and Special Needs: If you have a disability for which you need accommodations, you are encouraged to contact your instructor and the Learning Center (701-228-5479 or 1-888-918-5623) to request disability support services as early as possible.