Course Prefix/Number/Title: PHRM215 Introduction to Pharmacology

Number of Credits: 3

Course Description:

A fundamental discussion of the scope of Pharmacology, including terminology used. Drug laws that affect drug usage will be covered. Important drugs used in practice will be studied, including adverse effects.

Pre-/Co-requisites: AH134 Medical Disorders
                           AH171 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.
- Understand the laws governing drug administration and legal implications.

Instructor: Kim D McDaniel, MSN, RN, RNC-OB

Office: Online

Office Hours: Online by appointment

Phone: N/A

Email: Use the Course Messages tool on the left panel in Blackboard. A response from the instructor is usually expected within 24 hours Monday through Friday. Weekend emails should usually expect a response within 48 hours.

Lecture/Lab Schedule: Asynchronous – online

Textbook(s):

- *Focus on Pharmacology Essentials for Health Professionals* (*3rd edition*) by Jahangir Moini. ISBN: 978-0-13-452504-4

- *Student Workbook for Focus on Pharmacology Essentials for Health Professionals (3rd edition).* ISBN: 978-0-13-452529-7
- A recent drug handbook of choice. Healthcare, including medications, is in constant change; therefore, it is important to work from a current drug book (recommended no older than 3 years). Some people prefer to use an app for their phone or tablet. This is acceptable provided the app can be updated to stay current.

Course Requirements:

- Students are expected to read the assigned chapters for the week as well as any posted lectures, notes, slide presentations and/or other links.
- Students are responsible for checking email, course announcements, and course discussions on a regular basis.
- Students are expected to participate in any online class discussions. Responses should be meaningful and use critical thinking. Late or missing discussion responses receive a zero, unless prior arrangements have been made.
- Students are required to complete all assignments, quizzes and exams. Late or missing assignments/quizzes/exams receive a zero, unless prior arrangements have been made.
- Upon course completion, a letter grade is awarded. Final grade is based on the total number of points awarded for the course and is calculated using total points earned divided by total points available.
  - A = 94 – 100%
  - B = 85 – 93%
  - C = 75 – 84%
  - D = 65 – 74%
  - F = 0 – 64%

Tentative Course Outline:

- Introduction to Pharmacology
- Pharmacodynamics
- Pharmacokinetics
- Drug Toxicity Pharmacogenomics
- Law and Ethics of Medications
- Terminology, Abbreviations, and Dispensing Prescriptions
- Administration of Medications
- Principles of Math in Medicine
- Measurement Systems and Their Equivalents
- Adult and Pediatric Dosage Calculations
- Medication Errors and Prevention
- Nutritional Aspects of Pharmacology
- Dietary Supplements and Alternative Therapies
- Toxicology
- Substance Abuse and Misuse
- Antibacterial Agents
- Antiviral Agents
- Antifungal Agents
- Antiprotozoal Agents
- Vaccines and Immunoglobulins

- Analgesic, Antipyretic, and Anti-Inflammatory Drugs
- Antineoplastic Agents
- Drug Used to Treat Central Nervous System Conditions
- Drugs Used to Treat Autonomic Nervous System Conditions
- Anesthetic Agents
- Drugs Used to Treat Skin Conditions
- Drugs Used to Treat Cardiovascular Conditions
- Drugs Used to Treat Vascular Conditions
- Drugs Used to Treat Hyperlipidemia and Related Conditions
- Anticoagulants
- Drugs Used to Treat Fluid and Electrolyte Imbalances
- Drugs Used to Treat Endocrine Conditions
- Drugs Used to Treat Reproductive Conditions
- Drugs Used to Treat Gastrointestinal Conditions
- Drugs Used to Treat Respiratory Conditions
- Drugs Used to Treat Musculoskeletal Conditions
- Drugs Used to Treat Eye Conditions
- Drugs Used to Treat Geriatric Patients
- Drugs Used to Treat Pediatric Patients
- Drugs Used to Treat Pregnant Patients

General Education Competency/Learning Outcome(s) OR CTE Competency/Department Learning Outcome(s): Employ industry-specific skills in preparation for workplace readiness

Relationship to Campus Focus:

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:

- All students have 16 weeks to complete the course. The course ends at 11:59 p.m. central time on the last Friday of the term.
- Assignments, including discussions, are indicated within the course contents and are mandatory. All assignments must be submitted by the due date listed within the course (usually Saturday nights at 11:59 p.m. central time) or a grade of zero will be given for the uncompleted and/or late assignments.
- Exams are timed. When time has expired, the exam will shut off and be automatically submitted. Students should properly prepare for each exam and allow plenty of time to complete and submit the exam prior to the due date (generally 11:59 p.m. Saturday night). Anything received after 11:59 p.m. the night of the due date will be considered a late submission, and a grade of zero will be awarded. No exceptions. Students are not allowed to "preview" an exam.
- 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.
- All students are expected to complete an evaluation (survey) at the end of the course.

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.

Academic Integrity:

According to the DCB Student Handbook, students are responsible for submitting their own work. Students who cooperate on oral or written examinations or work without authorization share the responsibility for violation of academic principles, and the students are subject to disciplinary action even when one of the students is not enrolled in the course where the violation occurred. The Code detailed in the Academic Honesty/Dishonesty section of the Student Handbook will serve as the guideline for cases where cheating, plagiarism or other academic improprieties have occurred.

Disabilities or Special Needs:

Students with disabilities or special needs (academic or otherwise) are encouraged to contact the instructor and Disability Support Services.

Title IX:

Dakota College at Bottineau (DCB) faculty are committed to helping create a safe learning environment for all students and for the College as a whole. Please be aware that all DCB employees (other than those designated as confidential resources such as advocates, counselors, clergy and healthcare providers) are required to report information about such discrimination and harassment to the College Title IX Coordinator. This means that if a student tells a faculty member about a situation of sexual harassment or sexual violence, or other related misconduct, the faculty member must share that information with the College's Title IX Coordinator. Students wishing to speak to a confidential employee who does not have this reporting responsibility can find a list of resources on the DCB Title IX webpage.