

# Dakota College Bottineau Course Syllabus

## **Course Prefix/Number/Title:**

PHRM 215 – Introduction to Pharmacology

## **Number of credits:**

3 Credits

## **Course Description:**

This course is designed to teach students the principles of pharmacology throughout the lifespan; including mathematics and calculations, rules and regulations governing medications, medical administration and safety issues. Medications specific to various diseases and disorders will be studied emphasizing desired effects, side effects and contraindications. The course is designed to meet the needs of nursing and non-nursing students who will be administering medications.

## **Prerequisites:**

AH 171 – Medical Terminology

AH 134 – Medical Disorders

## **Course Objectives:**

Upon completion of this course the student should be able to:

1. Define pharmaceuticals, pharmacokinetic, and pharmacodynamic phases.
2. Understand the principles of safe drug administration, calculations, and pharmacological considerations throughout the lifespan.
3. Identify the actions and appropriate doses of commonly used medications for common diseases and disorders of each body system.
4. Identify drug interactions, side effects, adverse reactions, and contraindications of commonly used medications.
5. List the medications used in emergency situations and the actions of these medications.
6. Understand the laws governing drug administration and legal implications.

## **Instructor:**

Sandra K. Sund MSN, FNP-BC

## **Office:**

Virtual

## **Office Hours:**

Students may contact instructor via telephone or course email as needed

## **Phone:**

Home #: (701) 534-0109

If I am unavailable to take your call please be sure to leave a brief message with a return phone number.

## **Email:**

Please contact me via the email within the course. If for some reason you have technical problems you may send an email to my personal email account which is [Sandra.k.sund@hotmail.com](mailto:Sandra.k.sund@hotmail.com)

## **Lecture/Lab Schedule:**

You may work through the course at your own pace, however, you cannot skip around in the course – chapters need to be completed in the order they are listed in the syllabus. All chapters must be read in sequence with the assignments completed for that chapter. It is best to complete your posts on a weekly basis. I will allow 2 extra days to get the posts done; though after that you will not be able to post. It is

important that everyone stays on track each week. I do make allowances if needed. If something comes up, just send me an email telling me why your post was not done or late. The only assignment you will need to submit is the assignment defining pharmacology terms. All other "assignments" are the discussion questions that you are required to answer. All exams need to be taken in order and all exams are timed; therefore, it is important for you to know the material in the exam reviews before taking the exams to ensure you are prepared for the exams.

**NOTE:** If you are a nursing student please review the lecture on the nursing process in pharmacology as it relates to the administration of medications. The nursing process does not apply to non-nursing students as this is a function of nursing only. Medication administration by non-nursing personnel will be according to the policies of the healthcare facility in which you are employed. All healthcare personnel who administer medications are responsible for knowing the law(s) that pertain to medication administration.

**NOTE:** There are 35 chapters in the text which requires that approximately eight chapters will be covered per week in order to complete the course within the eight week time frame. It is best to get a blank calendar to map out what you need to complete each week, for example, what chapters and lectures need to be read, what assignments are due, what discussions are expected, and what exams are expected to be completed each week, etc.. Doing this will help you to better stay on track within the course and will also help to ensure that you do not miss anything of importance.

### **Textbook(s):**

Leland Norman Holland, Jr. & Michael Patrick Adams. 3<sup>rd</sup> Edition (2011). *Core Concepts In Pharmacology*. Upper Saddle River, NJ : Pearson Education, Inc. (ISBN-13: 978-0-13-507759-7)(ISBN-10: 0-13-507759-1)

Students are also required to purchase a drug handbook. These may be purchased at the DCB bookstore. You also may purchase a drug handbook/drug reference book elsewhere if you choose.

### **Course Requirements:**

Student Responsibilities:

1. The student is expected to read the assigned chapters for the week as well as the lecture notes that are posted by the instructor.
2. The assignment will be sent to the instructor via email attachment to the instructor's email within the course. They must be typed in a WORD document (no other programs or formats can be used or I will not be able to read the assignment) and sent as an attachment. Any assignments you will need to complete will be clearly listed within the course.
3. Remember to check the email and the announcements daily for any new emails or postings.
4. It is the student's responsibility to participate and provide feedback on all discussion questions. This is not optional and is a part of the grade for the course
5. It is the student's responsibility to read ALL of the posted discussions for each unit and be familiar with the content as they may appear on student exams.
6. It is the student's responsibility to pay close attention to the end of the chapter review questions in the text as they may also appear on student exams, also, those questions are written like NCLEX questions for those of you going into nursing.
7. It is the student's responsibility to read/print other resources that are posted within the course as the information may be included in student exams.
8. You do not need to send me any assignments on drug calculations though you do need to know the basics of how to calculate drug dosages as the information will appear on your final exam.

Course Evaluation Method:

1. Final grades will be based on the total number of points achieved for the semester.

2. The student will receive 10 points for each post relating to the topic/question posted. Students must post one response per question. Your response to another student's post will be worth an extra 2 points providing it is relevant information. If you do not receive the total points (10) on the discussion question it is most likely because you did not go in-depth with the question. Your response must be relevant using critical thinking
3. As mentioned, students are also expected to post at least one response to another student's post. These responses are worth 2 points each.
4. All students are expected to display critical thinking throughout the course in the assignments, exams and on the DB (discussion board)

Grading Scale:

- A (94 - 100)
- B (84 - 93)
- C (75 - 83)
- D (65 - 74)
- F (0 - 64)

**Tentative Course Outline:**

**WEEK ONE**

1. **Chapter 1 – Introduction to Pharmacology: Drug Regulation and Approval**
2. **Chapter 2 – Drug Classes, Schedules, and Categories**
3. **Chapter 3 – Methods of Drug Administration**
4. **Chapter 4 – What Happens After a Drug Has Been Administered**
5. **Chapter 6 – Herbs and Dietary Supplements**
6. **Chapter 7 – Substance Abuse**
7. Review other resources that may be posted. Read lecture notes for these chapters
8. Participate in any discussions that may be posted.

**WEEK TWO**

1. **Chapter 8 – Drugs Affecting Functions of the Autonomic Nervous System**
2. **Chapter 9 – Drugs for Anxiety and Insomnia**
3. **Chapter 10 – Drugs for Emotional and Mood Disorders**
4. **Chapter 11 – Drugs for Psychoses**
5. **Chapter 12 – Drugs for Degenerative Diseases**
6. **Chapter 13 – Drugs for Seizures**
7. **Chapter 14 – Drugs for Pain Control**
8. **Chapter 15 – Drugs for Anesthesia**
9. Review any other resources that may be posted. Read lecture notes for these chapters
10. Participate in any discussions that may be posted.

**WEEK THREE**

1. **Exam One (over chapters 1,2,3,4,6,7).**
2. Read **Chapter 16 – Drugs for Lipid Disorders**
3. Read **Chapter 17 – Drugs for Hypertension**
4. Read **Chapter 18 – Drugs for Heart Failure**
5. Read **Chapter 19 – Drugs for Dysrhythmias**
6. Read **Chapter 20 – Drugs for Coagulation Disorders**
7. Read **Chapter 21 – Drugs for Angina Pectoris, Myocardial Infarction, and Cerebrovascular Accident**
8. Read **Chapter 22 – Drugs for Shock and Anaphylaxis**
9. Read **Chapter 23 – Diuretics and Drugs for Electrolyte and Acid-Base Disorders.**

10. Review any other resources that may be posted. Read lecture notes for these chapters
11. Participate in any discussions that may be posted.

#### WEEK FOUR

1. **Exam Two (over chapters 8-15).**
2. Read **Chapter 24 – Drugs for Inflammation and Immune Modulation**
3. Read **Chapter 25 – Drugs for Bacterial Infections**
4. Read **Chapter 26 – Drugs for Fungal, Viral, and Parasitic Diseases**
5. Read **Chapter 27 – Drugs for Neoplasia**
6. Review any other resources that may be posted. Read lecture notes for these chapters
7. Participate in any discussions that may be posted.

#### WEEK FIVE

1. Read **Chapter 28 – Drugs for Respiratory Disorders**
2. Read **Chapter 29 – Drugs for Gastrointestinal Disorders**
3. Read **Chapter 30 – Vitamins, Minerals, and Nutritional Supplements .**
4. Review any other resources that may be posted. Read lecture notes for these chapters
5. Participate in any discussions that may be posted.

#### WEEK SIX

1. **Exam three (over chapters 16-23).**
2. Read **Chapter 31 – Drugs for Endocrine Disorders** along with the related notes and be sure to look over the review questions at the end of the chapter.
3. Read **Chapter 32 – Drugs for Disorders and Conditions of the Reproductive System** along with the related notes and be sure to look over the review questions at the end of the chapter.
4. Review any other resources that may be posted.
5. Participate in any discussions that may be posted.

#### WEEK SEVEN

1. **Exam Four (over chapters 24-32).**
2. Read **Chapter 33 – Drugs for Bone and Joint Disorders** along with the related notes and be sure to look over the review questions at the end of the chapter.
3. Read **Chapter 34 – Drugs for Skin Disorders** along with the related notes and be sure to look over the review questions at the end of the chapter.
4. Read **Chapter 35 – Drugs for Eye and Ear Disorders** along with the related notes and be sure to look over the review questions at the end of the chapter.
5. Review any other resources that may be posted.
6. Participate in any discussions that may be posted.
7. Submit any required assignments.

#### WEEK EIGHT

1. **Take Comprehensive Final Exam (chapters 33, 34, & 35 will be included in the final as they were not included in exam 4).**
2. Review any other resources that may be posted.
3. Review and prepare for the **comprehensive** final exam.
4. Participate in any discussions that may be posted.
5. Submit any required assignments.
6. Upon completion of all reading, assignments, discussions, and exams be sure to complete the **COURSE EVALUATION.**

## **General Education Goals/Objectives:**

### ***According to the campus catalog:***

General education exists on the DCB campus to provide students with an opportunity to develop knowledge and skills to become life-long learners in a dynamic, global community that will continue to change. At DCB, general education exists within all programs.

The core of general education includes building knowledge and understanding concepts of the natural and social sciences, mathematics, communication, arts and humanities, technology, and wellness. The specific goals of general education reflect the commitment to the campus focus of Nature, Technology, and Beyond and are as follows:

#### ***Nature***

1. Explains the interrelationships between humans and their environment and the role of science in their lives

#### ***Technology***

1. Demonstrates knowledge and application of technology
2. Demonstrates the ability to convert, calculate, and analyze a variety of mathematical problems

#### ***And Beyond***

1. Demonstrates effective communication
2. Employs the principles of wellness
3. Demonstrates the knowledge of the human experience throughout history
4. Demonstrates the ability to create and analyze art; evaluate aesthetics; and synthesize interrelationships among the arts, the humanities, and society

Specifically, educated people practice and are literate in the various methods of communication. They recognize their place in the history, culture, and diverse heritages of the United States and the world. They appreciate the web of commonality of all humans in a multicultural world and are prepared for the responsibilities of engaged citizenship. They recognize the ethical demands of our common lives. They demonstrate the skills and knowledge of the social and behavioral sciences to analyze their contemporary world. They are familiar with the history and aesthetics of the fine arts. They understand and practice the scientific and mathematical views of the world. They possess critical thinking skills to analyze and develop solutions for problems.

This course specifically relates to the following general education goals and objectives:

1. This course evaluates and applies research information as it relates to pharmacology.
2. This course analyzes information to determine its validity as it relates to pharmacology.

## **Relationship to Campus Theme:**

### ***According to the campus catalog:***

The campus focus of "Nature, Technology and Beyond" is defined by the fact that the School of Forestry was established in 1906 and since that time, Dakota College at Bottineau has consistently utilized the biological diversity of the region via the Turtle Mountain Forest, the prairie pothole region, the J. Clark Salyer National Wildlife Refuge, the International Peace Garden, and Lake Metigoshe. Using these as natural laboratories to strengthen the educational experience and continuously expanding academic and career programming, Dakota College at Bottineau integrates technology to prepare students not only for the present but also to go beyond and to aid in improving the future. Dakota College at Bottineau's

diverse, natural surroundings provides examples of how and why everyone must care for the environment. Technology aids in determining appropriate methods to solve problems and create the change necessary to maximize positive consequences to all life. Through these and other appropriate actions, Dakota College at Bottineau will endeavor to leave students with an ethic of concern and care for the world.

This course specifically relates to the “Technology” aspect of the campus’ focus. In the ever changing world of the technology associated with healthcare, students will recognize how that technology plays an important part in the healthcare arena.

### **Classroom Policies:**

1. The final exam will be comprehensive in nature and will cover the material that was covered on the chapter exams.
2. You will have 8 weeks to complete the course.
3. There will be 4 course exams in addition to a final exam. All students will be required to complete all of the exams within the course.
4. As we get into the chapters related to medications and the specific body systems, the class notes will be in outline form and posted within the course. The major drugs to study will be listed in the lecture notes. You will be expected to read all of the required chapter material, though keep in mind that the major points will be highlighted in the course lectures and notes.

### **Academic Integrity:**

The academic community is operated on the basis of honesty, integrity, and fair play. Occasionally, this trust is violated when cheating occurs, either inadvertently or deliberately. This Code will serve as the guideline for cases where cheating, plagiarism, or other academic improprieties have occurred.

1. The primary responsibility of the students, faculty, and administration is to create an atmosphere where the honesty of individuals will not be questioned.
  - A. Faculty members are responsible for providing guidelines concerning cheating and plagiarism at the beginning of each course, and should use precautionary measures and security in cases where cheating is likely to occur.
  - B. 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.
2. The faculty member and the administration are responsible for procedural fairness to the accused student or students in accordance with the following procedure:
  - A. Faculty members who suspect that prohibited academic conduct has occurred in their class have an initial responsibility for informing the student or students involved of their suspicion and the grounds thereof, for allowing them a fair opportunity to refute them, and for making an impartial judgment as to whether or not any prohibited academic conduct occurred only upon the basis of substantial evidence.
  - B. Faculty members have the prerogative of determining the penalty for prohibited academic conduct in their classes. Faculty members may fail the student for the particular assignment, test, or course involved, or they may recommend that the student drop the course in question, or these penalties may be varied with the gravity of the offense and the circumstances of the particular case.
  - C. In addition, to the prerogative above, or if the student is not enrolled in his or her course, the faculty member may recommend a disciplinary sanction to the Associate Dean for Academic Affairs. The Associate Dean may impose academic warning or probation or may recommend suspension or expulsion to the All College Student Conduct Committee.

- D. If a person not currently enrolled at MSU-B is involved in prohibited academic conduct, the Associate Dean for Student Affairs shall be informed of the violation.
3. A student who has received a penalty or a disciplinary sanction for prohibited academic conduct may appeal the decision.
    - A. The student must consult with the instructor, and the Associate Dean for Academic Affairs, in sequence, to resolve the conflict.
    - B. Then, the student may request a hearing by the Academic Standards Committee.
  4. A student may be suspended or expelled for prohibited academic conduct by the All College Student Conduct Committee in accordance with the following procedure:
    - A. The Associate Dean for Academic Affairs must notify the student that they will recommend suspension or expulsion to the All College Student Conduct Committee. The student must be given two school days to file a written notice of appeal with the Academic Standards Committee before the recommendation is presented to the All College Student Conduct Committee.
    - B. The student may appeal the recommendation of suspension or expulsion to the Academic Standards Committee as outlined in section 3.b above.
    - C. The All College Student Conduct Committee may impose suspension or expulsion, if an appeal with the Academic Standards Committee is not in progress.

**Disabilities and Special Needs:**

Please refer to the course handbook regarding special needs and or disabilities. If you have questions regarding this please contact the learning center.

Welcome to the course!