Course Description

This course is a study of drug classifications, actions, therapeutic uses, adverse effects, routes of administration, and calculation of dosages.

Text, References, and Supplies


Assessment Technologies Institute (ATI) - PN Nursing Education Program

Supplies

Internet access and ability to access Canvas and ATI
4x6 note cards (around 50)
3x5 note cards (around 200)
3 Ring Binder

Recommended

A Medical Dictionary (Taber's Cyclopedia)
A Drug Handbook
A basic calculator

Student Learning Outcomes

This course is designed to introduce the student to general classifications of drugs, generic and trade names, mechanisms of action, therapeutic uses, side effects and adverse effects, precautions and contraindications, routes of administration, and pharmacokinetics. Pertinent client education will be emphasized. Instruction in basic and advanced dosage calculation problems will be included.

Course Goals and Objectives

This course is designed to help the Nursing, and Allied Health student to become familiar with drug use and therapy needed for their practice as a health care professional. This course is also designed to help students solve basic and advanced dosage calculation problems needed in the health arena.

The focus of this course is to present the basic level of assessment, and knowledge necessary to meet the pharmacological needs of the adult, elderly, and dependent client. This course will also provide a foundation for basic pharmacological calculation concepts needed to safely administer medications in order to meet the pharmacological needs of clients. Legal and ethical
issues and nursing responsibilities associated with medication calculations are discussed. Upon successful completion of this course, the student will be able to:

1. Introduce basic pharmacological care utilizing the nursing process in caring for adult, elderly, and dependent clients in structured settings in order to promote and maintain optimal client health.

2. Maintain basic avenues of communication regarding pharmacological needs with the adult, elderly, and dependent clients with basic health needs.

3. Introduce the nursing process and teaching-learning principles in health promotion and self-care to assess and administer medications to adult, elderly, and dependent clients with basic pharmacological needs.

4. Use basic management principles to plan and set goals to meet the pharmacological needs of the adult, elderly, and dependent client.

5. Know the basic responsibilities and accountability as a member of the nursing profession in terms of the legal aspects of medication administration.

6. Recall and interpret standard medication and calculation abbreviations.

7. Recall from memory the metric, apothecary, and household approximate equivalencies.

8. Identify and interpret a complete medication order and document administration.

9. Read and interpret all components of medication labels.

Course Learning Outcomes

Upon completion of this course, the student will be able to:

1. Define the basic terminology associated with Pharmacology.
2. Define the legislative laws regulating Pharmacology.
3. Interpret the use of common pharmacological equivalents and abbreviations.
4. Compute basic and advanced dosage calculation problems.
5. Describe normal physiological conditions within the body.
6. Describe the pathophysiology of certain disease processes.
7. Discuss the mechanism of action of major classifications of drugs.
8. State the uses of major drug classifications in treating certain disease processes.
9. State the side effects associated with each major classification of drugs.
10. Discuss appropriate patient teaching in regards to specific drug therapy Classifications.
11. Apply the drug therapy information used to treat certain disease processed

**Student Contributions, Responsibilities and Class Policies**

Student Readiness Assessment Math Test:

The assessment math test is a measure of the student's basic math skills. Basic math skills are a necessary part of the dosage calculations learning process. Dosage Calculations is a learning outcome that must be mastered for successful completion of the course.

Last Updated: 12/28/2016
If the student does not earn an 85% on this assessment test, the student is encouraged to make use of the following resources to re-mediate basic math skills.

- Rx Success Math Review http://www.austincc.edu/rxsucces/MathReview1.html
- Midland College Tutoring: Math Lab: MHAB 124; 685-4612.

Learning Activities

1. Punctual attendance in the classroom and laboratory are expected.
2. Students will be presented information in lecture format, view online videos and activities in ATI, take quizzes, and be evaluated on mastery of content throughout the course.
3. Lecture content, text books and other resources will be necessary to answer review questions.
4. Basic concepts of Anatomy and Physiology will be presented in lecture, and in the textbook where applicable to specific body systems in order to understand pharmacodynamics and pharmacokinetics.
5. Review questions are provided as a guideline for information required on examinations.
6. Dosage calculations will be covered in the lab component of this course.

Discipline Policies

Please refer to the Midland College catalog, and the Midland College Vocational Nursing Handbook 2016-2017 for complete policy details.

General

Students are expected to participate appropriately in the class room. This includes, but is not limited to helping with exercises, demonstrations, and asking clarifying questions. Behavior that may result in disciplinary actions includes interruption of others learning.

Disciplinary action will include a written warning with the instructor for the first offense and, possible removal from the course.

- Cell phones and other electronic devices must be turned off during class and placed in the cell phone home. Cell phones will be allowed at the instructor’s discretion. Recording of any classroom activity requires instructor permission.
- Instructor notification related to concerns of understanding content of this course is the responsibility of the student.

Appropriate classroom behavior is expected at all times. The following behaviors are considered to be disruptive and inappropriate. They include, but are not limited to:
- Cell phones visible in the classroom, unless authorized by instructor. Cell phones ringing.
- Cheating on tests, homework or other assignments.
- Arriving late to class or leaving early, without prior notification to instructor.
- Talking during instruction on matters unrelated to class or talking out of turn.
- Ill-preparedness for class, including non-possession of required texts and other materials.
- Profanity, vulgarity or rudeness directed at the instructor or other students.
- Harassment directed at the instructor or other students.
- Inappropriate personal comments.
- Eating or drinking in the classroom.
• Completing homework for any class during class.
• Bringing a living pet, other than a certified service animal, to class.
• Bringing children to class.

Attendance/Late Policy

• Students are expected to attend each class, be punctual, and complete assignments.
• If it is necessary to be absent or tardy, it is the student’s responsibility to notify the instructor prior to the start of class.
• Students are responsible for material presented during their absence.
• Students are expected to observe the attendance requirements of the college. Students may be dropped from this course when a combination of absences or tardies totals the equivalent of more than two (2) weeks of scheduled class time. A student is considered late up to 15 minutes from the time class is scheduled to start. More than 15 minutes late is considered an absence. Two (2) tardies = one (1) absence. Tardy refers to coming in the classroom after the scheduled beginning of class time. Time is determined by the instructor’s cell phone.
• Absences will be counted as follows. Lateness after roll call will count as an absence. Roll call may be taken anytime during the scheduled class time and an absence recorded if student is not present. Keep track of your own absences. Non-participating students will be dropped by the census date by the instructor.

Late Assignments

Homework assignments must be completed and submitted by the due date, no late work will be accepted.

No homework is optional.

Missed Exams or Tests

Students are responsible for material presented during their absence. Make-up exams will be permitted only if the instructor is notified of absence prior to the exam being given, and at the instructor’s discretion. Exams that are missed due to an excused absence will be taken on the first day back to school and/or at the discretion of the instructor. Any exam or quiz must be completed before the class review. Quizzes may or may not be announced. Pop quizzes cannot be made up. Exams, tests or quizzes cannot be retaken due to a failing grade.

Each student must maintain academic honesty (see below). See catalog and handbook for details.

Academic Dishonesty

Acts prohibited by the college for which discipline may be administered include scholastic dishonesty, including but not limited to cheating on an exam or quiz, plagiarizing, and unauthorized collaboration with another in preparing outside work. Academic work submitted by students shall be the result of their thought, research or self-expression. Academic work is defined as, but not limited to tests, quizzes, whether taken electronically or on paper; projects, either individual or group; classroom presentations, and homework.

All electronic devices must be turned off during examinations. If this directive is not followed, a charge of academic dishonesty could result.
The penalty for academic dishonesty is an automatic failing grade of “F” in the course. If the student withdraws from the course after the offense, the instructor will reinstate and the failing grade given as stated.

See the Student Standards of Conduct and Disciplinary Process and other policies in the Midland College Student Handbook and the Vocational Nursing Program Student Handbook.

Privacy

Discussions may involve actual experiences or knowledge students and the instructor would discuss as it relates to the topic’s involved in nursing. Please keep personal identification information confidential as it relates to others and use discretion in sharing personal experiences.

Withdrawals

If the student is failing and does not withdraw, an F will be given. No retroactive withdrawals are given.

The withdrawal deadline date is published in the Midland College Academic Calendar.

Failure in this course will result in the inability to progress in the vocational nursing program.

Evaluation of Students

Evaluation is an essential and ongoing process in education. It is a means by which students are kept informed of their progress in meeting the course goals and objectives. It is the student’s responsibility to contact the instructor for assistance as soon as it becomes necessary. There may be periodic quizzes given. Exams will be reviewed during class. The student must achieve 70% score, in order to pass this class.

Testing Requirements

All theory exams and all dosage exams will be administered in the classroom or proctored on the computer.

1. Six theory examinations will be given. A grade will be recorded for each of the exams in order to receive a final course grade. Three dosage calculations exams will be given.
2. No retakes on any theory or dosage exams will be allowed.
3. Basic calculators may be used on the dosage calculations exams.
4. Each exam will cover ATI dosage calculations sections.
5. It is the student’s responsibility to keep up with dates that exams are scheduled. Refer to the attached proposed class and testing schedule.

Grades will be calculated as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit Exams</td>
<td>60%</td>
</tr>
<tr>
<td>Dosage Calculation Exams</td>
<td>30%</td>
</tr>
<tr>
<td>Quizzes/Homework/class work</td>
<td>10%</td>
</tr>
</tbody>
</table>
The final course grade will be recorded, using the following scale:

- 90-100% A
- 80-89.9% B
- 70-79.9% C
- 60-69.9% D
- < 59.9% F

Student Rights and Responsibilities

Students at the college have the rights accorded by the U.S. Constitution to freedom of speech, peaceful assembly, petition, and association. These rights carry with them the responsibility to accord the same rights to others in the college community and not to interfere with or disrupt the educational process. Opportunity for students to examine and question pertinent data and assumptions of a given discipline, guided by the evidence of scholarly research, is appropriate in a learning environment. This concept is accompanied by an equally demanding concept of responsibility on the part of the student. As willing partners in learning, students must comply with college rules and procedures.

Use of Midland College E-Mail

All College e-mail communication to students will be sent solely to the student's MC e-mail account, with the expectation that such communications will be read in a timely fashion. MC will send important information and will notify you of any college related emergencies using this account. Students should only expect to receive email communication from their instructor using this account. Likewise, students should use their MC e-mail account when communicating with instructors and staff.

Testing Center Policy

Under certain circumstances, an instructor may have students take an examination in a testing center. Students using the Academic Testing Center must govern themselves according to the Student Guide for Use of MC Testing Centers and should read the entire guide before going to take the exam. To request an exam, one must have:

- MC Photo ID
- Course Abbreviation (e.g., HPRS)
- Course Number (e.g., 2300)
- Instructor's Name

Do NOT bring cell phones to the Testing Center. Having your cell phone in the testing room, regardless of whether it is on or off, will revoke your testing privileges for the remainder of the semester. MC Testing Center policies can be found at http://www.midland.edu/students/student_services/testing/index.php

Student and Instructional Services

MC strives to provide exemplary support to its students and offers a broad variety of opportunities and services. Information on these services and support systems is available at: http://www.midland.edu/.
Links to many student services and other information can be found at: http://www.midland.edu/

MC Learning Labs provide free tutoring services to all MC students currently enrolled in the course to be tutored. The tutor schedule for each Learning Lab may be found at: http://www.midland.edu/students/student_services/testing/index.php
for help setting up your MCID, MC E-mail, or MC Canvas, see a Learning Lab Technician at the MC Learning Lab.

Other Miscellaneous Information

• All cell phones and pagers must be TURNED OFF when in class.
• This class is relatively fast paced so the student should study every day and not just before the exam.
• The student needs to keep up with the schedule and test due dates and meet deadlines responsibly as this is very essential in becoming a responsible health practitioner.
• Remember, Pharmacology is a whole new language. A new language requires a lot of time and effort to learn.

Hints for Success in Pharmacology for Health Professions

• Keep up with assignments. Do all assigned reading and practice calculations according to schedule. Playing "catch-up" is very difficult.
• Get help early with dosage calculations if needed. Workshops and individual tutoring is available in the Learning Lab for students having difficulty.
• Answer all review questions in detail. This will provide the majority of information needed for the unit exams.
• Be sure to have all essential abbreviations and equivalents memorized before attempting the dosage calculations exams. It is impossible to convert dosage problems if the proper equivalents are not known.
• REMEMBER . . . You have an instructor who is willing to help you if you need some extra assistance. If office hours are not convenient, the instructor can refer you to someone that should be able to help with the problem you may be having with the course.
• Students need to refer to the course notes prepared by their instructor for specific course directions.

Examples of Learning Tools

1. Instructions for processing a Drug Profile Card:
• These cards are for your own benefit and should be used to study for the exams. Three drug profile cards are required for each chapter.
• These cards are due the dates of the exams for homework credit.
• Information to be handwritten or typed on 4x6 note cards and include the following information:
  1. Name of Drug – Brand and Generic
  2. Drug Class
  3. Mechanism of Action (MOA)
  4. Major Uses
  5. Side Effects
  6. General Route/Dosing; ex: bid, tid qd
  7. Patient/Family Teaching Tips for Patient
  8. One or two nursing implications/considerations that stand out for that particular drug.
(Something of interest that makes that drug unique)
2. Instruction for Processing Drug Flash Cards: *Beneficial for exam preparation!  
• These sets of cards are to help you study the drugs for the matching section on exams 2-6.  
• These cards are not to be turned in.  
• Get about 200 3x5 note cards and include on 1 side on the card the following:  
  Side 1: Side 2
  1) Drug “Brand” name 1) Generic Name  
  2) Drug MOA 2) Classification of Drug  
Use this to learn the drugs and their classification. This makes a good study tool.  

Course Calendar  

This course outline/calendar can be found in Canvas.  

Americans with Disabilities Act (ADA):  

Any student who, because of a disabling condition, may require some special arrangements in order to meet course requirements should contact Shep Grinnan as soon as possible. Mr. Grinnan’s office is located in the Scharbauer Student Center Building. These conditions may include documented physical or educational disabilities. Please be aware that services or accommodations are not automatic. Each student must request them and secure the proper authorizations/documentation.  

Division Information: Health Sciences  

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Last Updated: 12/28/2016