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RES 133T.01: Respiratory Care Pharmacology

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**THE UNIVERSITY OF MONTANA-MISSOULA
COLLEGE OF TECHNOLOGY
RESPIRATORY CARE PROGRAM**

COURSE SYLLABUS

COURSE NUMBER AND TITLE: RES 133T Respiratory Care Pharmacology

DATE REVISED: Fall 2005

SEMESTER CREDITS: 3

CONTACT HOURS PER SEMESTER: 45

Lecture hours per week: 3

Lab hours per week: 0

PREREQUISITE: Completion of Health Care Core Requirements. Acceptance into the Respiratory Care Program or consent of the instructor.

FACULTY:

Charles Miller

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243-7821 (office)

Office: Health and Business Building Office

Office Hours: TBA

RELATIONSHIP TO PROGRAM:

This course offers the students the opportunity to develop knowledge of basic Respiratory Care Pharmacology. It correlates with RES 131T, the Respiratory Care Fundamentals class where medication delivery systems are discussed. It lays the foundation for RES 255T, Clinical Experience I, where the students will begin their clinical phase and be delivering numerous respiratory medications to patients.

COURSE DESCRIPTION:

Principles of basic chemistry are introduced with an application to pharmacology as related to the pulmonary system. Cardiovascular and related pharmacology are studied in preparation for ACLS and ventilator management.

STUDENT PERFORMANCE OUTCOMES:

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

1. Describe drug-receptor site theory.
2. Describe the mechanism of action of adrenergics, methylxanthines, aerosolized corticosteroids, mucus-controlling agents, parasympatholytics, nonsteroidal antiinflammatory agents and aerosolized antiinfective agents.

3. Discuss the indications for recommending pharmacologic agents listed in #2.
4. Discuss contraindications of agents listed in #2.
5. Modify therapy/make recommendations of broncho active agents based on patient's response.
6. Perform drug dosage calculations.

METHODS OF INSTRUCTION:

Lecture, reference reading, group discussion, and homework exercises.

STUDENT ASSESSMENT METHODS AND GRADING PROCEDURES:

GRADING SCALE

A = 4.00 95-100%	B- = 2.67 80-83%	D+ = 1.33 67-69%
A- = 3.67 90-94%	C+ = 2.33 77-79%	D = 1.00 64-66%
B+ = 3.33 87-89%	C = 2.00 74-76%	D- = .67 60-63%
B = 3.00 84-86%	C- = 1.67 70-73%	F = 0.00

Students in Respiratory Care program must have a “B-“ final grade in order to progress within the program.

Test questions will be based on unit objectives. Unit objectives are to be used as study guides.

ATTENDANCE:

Class attendance is an integral part of this course. The test dates are included in this syllabus. Pop quizzes will be given randomly throughout the semester. Failure for the quizzes will result in a zero being recorded and used in computing your average.

OTHER POLICIES:

CELL PHONES/PAGERS:

Due to an increasing number of students who own and use cell phones and pagers, it has become necessary to institute a policy regarding these tools during class times. As you are aware, these tools are distracting to an entire class. However, some students require them for business which allows them to further their education. Please follow these guidelines:

1. If the cell phone/pager is not business or emergency related, please turn it off.
2. Use the vibrating option on your pager.
3. Do not listen to the messages in class. Leave class quietly.
4. ***CELL PHONES AND PAGERS MUST BE TURNED OFF DURING EXAM AND CLASS PRESENTATIONS.***

SEATING:

Many classrooms have chairs to accommodate persons with disabilities. These chairs will display the international disability symbol and are assigned to a particular student. Please refrain from using these chairs or making adjustments to them unless the chair is assigned to you. If you think you may have the need for a specific chair, please contact Disability Student Services. Thank you for your cooperation.

TEST/QUIZ MAKEUP:

Make-up exams and lab experiences will only be given under extreme circumstances and then only if:

- a) permission is granted *in advance* by the course instructor, or b) a written excuse is provided by a medical doctor. The burden of proof is on the student, so you must document and prove a justifiable absence. Not following this procedure prior to the exam will automatically result in a zero score being recorded. Missed tests need to be made up within one week of the original date given. You are responsible for contacting the Academic Support Center to schedule the make-up. Failure to do so will result in a **ZERO** grade for the missed test.

The faculty senate guidelines concerning the issuance of incomplete grades will be followed. Attention to critical dates such as P/NP, drop, etc. is in the responsibility of the student. Students wishing to drop the class after the drop deadline will need a documented justifiable reason for doing so. Dropping the class for fear of bad grade or to protect a GPA are *not* justifiable reasons. The principles embodied in the **Student Handbook Code** will be adhered to in this course.

It is the expectation that homework will be turned in when due. If you are not present, it is your responsibility to see that it is in my mailbox by 4:00 p.m. on the due date or a zero will be recorded and used in computing your average.

REQUIRED TEXTS:

TITLE: Egan's Fundamentals of Respiratory Care 8th edition
AUTHOR: Wilkins, et al
PUBLISHER : Mosby

TITLE: Accompany Egan's Fundamentals of Respiratory Care 8th edition
AUTHOR: Wehrman, et al
PUBLISHER : Mosby

THEORY:

Monday, Wednesday and Friday, 11:10 a.m. – 12:00 p.m.

COURSE EVALUATION:

Course evaluation forms will be completed at the end of the semester by the students and used to improve this course.

COURSE OUTLINE:

- I. BASIC CONCEPTS
- II. PRINCIPLES OF PHARMACOLOGY
- III. CALCULATING DRUG DOSAGE
- IV. THE NERVOUS SYSTEM
- V. ADRENERGIC BRONCHODILATORS
- VI. ANTICHOLENERGIC BRONCHODILATORS
- VII. INHALED CORTICOSTEROIDS
- VIII. NONSTEROIDAL ANTI-ASTHMA DRUGS
- IX. AEROSAL DRUG THERAPY
- X. MUCUS CONTROLLING AGENTS
- XI. AEROSOLIZED ANTIINFECTIVE AGENTS
- XII. ACLS DRUGS
- XIII. DIURETIC AGENTS
- XIV. CONSCIOUS SEDATION
- XV. PHARMACOLOGY FOR MECHANICAL VENTILATION

STUDENT LEARNING ACTIVITIES:

1. Read assigned material.
2. Attend class and take notes.
3. Do work sheets/exercises in text and study guide.
4. Take and review unit test.

INSTRUCTOR EXPECTATIONS:

Because the course has a great deal of new material, it is very important to study consistently. Some suggestions for better study are:

1. Read the unit objectives at the beginning of each chapter – find out what you are expected to learn.
2. Read the material before class – will help you understand the lecture.
3. Look up definitions to words you do not understand.
4. Attend every class and take notes – but do not try to write down everything. Concentrate on concepts.
5. Review your notes as soon after class as possible – make sure you can read them!
6. Study notes/material and compare with objectives.
7. Write workbook answers in *your own words*. This makes the material “yours.”
8. Study no more than one hour before taking a short break.
9. Relate information to prior learning/examples to develop a “picture” in your mind.
10. Ask instructor for clarification as needed – during or after lecture.
11. Study regularly in a quiet place; set study hours and keep them.
12. Plan something for fun and relaxation – stress management.
13. See your instructor when you think you need help. Your instructor wants you to succeed and will have some ideas which should help.
14. Review for unit exams and finals is made easier by frequent review of chapter content reviews.
15. Be in class and don’t miss pop quizzes.