



South Portland, Maine 04106

Respiratory Therapy

Title: Respiratory Pharmacology

Catalog Number: RESP-160

Credit Hours: 3

Total Contact Hours: 45

Lecture: 45

Instructor: Heather Higgins, MS, RRT

Office Hours: Monday 1-3 pm,

E-mail: hhiggins@smccme.edu

Thursday by appointment

Phone: 741-5592 Office: 205 D HSC

Course Syllabus - Spring 2018

Course Description

This course is designed to provide respiratory care students with a strong foundation in pharmacologic principles essential to safely deliver respiratory medications. Students will apply concepts previously learned in anatomy and physiology to the study of pharmacology and drug interactions in the human body. The general principles of drug action, methods of drug administration, and pharmacokinetics will be presented. Medications affecting the pulmonary system will be emphasized. Additional drug categories will be examined, including cardiovascular medications, neuromuscular blockers, anticoagulants, and diuretics.

Prerequisites: BIOL-138, RESP-100, RESP-101, RESP-120

Corequisites: RESP-105, RESP-110, RESP-125

Course Objectives

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

- Differentiate the sympathetic and parasympathetic branches of the autonomic nervous system
- Categorize commonly administered sympathomimetic bronchodilators
- Categorize commonly administered parasympatholytic bronchodilators
- List common indications and contraindications for Mucolytic agents, Corticosteroids, Anti-infectives, and nonsteroidal antiasthma drug classes
- Describe receptor theory of drug action
- Identify routes and methods of drug administration

- Distinguish the terms pharmacokinetics and pharmacodynamics
- Design a Chronic Obstructive Pulmonary Disease (COPD) and asthma action plan
- Modify COPD and asthma care plans based on changing symptoms
- Discuss an overview of Central Nervous System (CNS) depressants
- Describe clinical use of diuretics and anticoagulants
- Contrast neuromuscular blocking agents and sedative agents
- Classify cardiovascular medications

Teaching Methods:

This course is taught using a combination of lectures, case studies, group work, question and answer opportunities, demonstrations, computer resources.

Student Evaluation and Grading:

- **2 Exams 40%**
- Comprehensive Final Exam 35%
- Self-assessments 5%
- Group Drug project 20%

Program Grading Requirement:

The grade of a C+ (77 or higher) must be achieved in all technical courses. Technical courses include all courses with the initials RESP preceding their catalog number. Any student who fails to earn a minimum RESP course grade of a 77 must stop out of the program and repeat that course the following year on a space available basis. Students' can repeat a RESP course only once.

Text:

Rau's, **Respiratory Care Pharmacology, 9th Edition**

Attendance Policy

Attendance is strongly advised at every class to be successful with managing challenging course material. If you cannot make class for any reason please email me. **Any absences beyond 3 in one semester will drop your grade by one letter grade.** Any student who arrives greater than 10 minutes late will be considered tardy. **If any student accumulates more than 2 tardiness occurrences in a given semester this will result in an absence.** Quizzes or assignments missed as the result of an unexcused absence cannot be made up, and will result in a grade of zero points for that day. Exams are to be taken as scheduled. Missed exams may be made-up with a 10% penalty if the student contacts the instructor prior to missing the exam. The make-up exam format will be altered.

Device Etiquette

Please adhere to the following rules:

- Cell phones should be placed in silent mode while in class
- No text messaging during class time
- No phone calls during class time except in the case of an emergency
- No internet access unless it pertains to the class topic and is assigned by the instructor

Tentative Lecture Schedule: (May change at the discretion of the instructor or due to logistics)

Week	Topic	Reading due
Jan 19	Central and Peripheral Nervous Systems	Rau Chapter 5 & Handouts
Jan 22	ANS, Adrenergic & Cholinergic Drug Receptors	Rau Chapter 5, 6 & 7
Jan 29	Introduction to Airway Pharmacology	Rau Chapter 1, Egan Ch 35
Feb 5	Terminology	Hand outs
Feb 12	Principles of Drug Action	Rau Chapter 2
Feb 23	Pharmacokinetics & Pharmacodynamics of Respiratory Drugs	Rau Chapter 2
Feb 26	Exam 1 Administration of Aerosolized Agents	Rau Chapter 3, Egan Ch 39
Mar 5	Devices Adrenergic & Anticholinergic Respiratory Drugs	Rau Chapter 3 Egan Chapter 36 Rau Chapter 6 & 7
Mar 19	Xanthines, Mucus Controlling Drugs & Surfactant	Rau Chapter 8, 9 & 10
Mar 26	Corticosteroids, Nonsteroid Anti-inflammatory Agents & Aerosolized Anti-infective Agents	Rau Chapter 11, 12 & 13
Apr 2	Drug Presentations	
Apr 9	Drug Presentations Exam 2	
Apr 20	NMB & Diuretics CNS Depressants	Rau Chapter 18 & 19 Rau Chapter 20

Week	Topic	Reading due
Apr 23	Vasopressors, Inotropes & Antiarrhythmics, Antihypertensives, Antianginal, & Antithrombic	Rau Chapter 21 Rau Chapter 22
Apr 30	Agents of Pulmonary Value Antimicrobial Agents	Rau Chapter 15, 16 & 17 Rau Chapter 14
May 7	Finals Week	

End-of-Course Evaluation

Students complete evaluations for each course attended at SMCC. Evaluations are submitted online and can be accessed through the student portal. Students can access the course evaluations beginning one week before the end of classes. The deadline for submission of evaluations occurs Monday at 5 PM following the last day of the class. You will receive an email to your student email account when course evaluations are available.

ADA Syllabus Statement

Southern Maine Community College is an equal opportunity/affirmative action institution and employer. For more information, please call 207-741-5798. If you have a disabling condition and wish to request accommodations in order to have reasonable access to the programs and services offered by SMCC, you must register with the Disability Services Coordinator, Sandra Lynham, who can be reached at 741-5923. Further information about services for students with disabilities and the accommodation process is available upon request at this number. Course policies about online testing are modified to suit each individual's accommodations.

SMCC Pay-for-Print Policy

Per Page Costs

Each semester students receive a \$20 printing credit. The balance resets at the end of the semester and any remaining credits are removed. The cost varies depending upon page size and whether printing is done in black and white or color.

There is a \$0.10 per page fee for standard 8.5" by 11" black and white documents.

The reverse sides of duplex (double-sided) documents are free.

There is a \$.50 per page fee for standard 8.5" by 11" color documents.

There is a \$.20 per page fee for 8.5" by 14" (legal) or 11" by 17" (tabloid) black and white documents.

There is a \$1.00 per page fee for 8.5" by 14" (legal) or 11" by 17" (tabloid) color documents.

Duplex charges (printing on both sides of a page) work in the following fashion: One page is \$0.10, two pages are \$0.10, three pages are \$0.20, and four pages are \$0.20, etc. The flipsides are free, but another sheet of paper is \$0.10. Please be aware that a document with any color at all (when printed to a color printer) will by default be printed in color. You are responsible for setting the print job to print black and white if you do not need color. For directions, please go to the IT Help tab in My SMCC.

How does it work?

The College's pay-for-print system monitors printing on all printers (including those in general access labs, library printers, the Academic Achievement Center, Noisy Lounge and technology labs). Students can check the number of pages they have printed by using the Printing Balance tool available on SMCC computers (located in the lower right corner of the screen, near the clock). Departments with work study students who need to print documents for the department should contact the Help Desk at 741-5696 to have a special account set up.

Refunds

Print jobs are eligible for a refund in the event of mechanical or electronic error on the part of the printer, print server, or software used to submit the job. Jobs are not eligible for a refund in cases where the job was not set up correctly, was submitted multiple times, or the student is not satisfied with the result. To request a refund, please bring the offending print to the IT Department in the basement of the Ross Technology Center. Refunds will be granted in the form of a credit to the student's account.

Why is SMCC charging for printing?

The pay-for-print system is an effort to control escalating printing costs. Charging for printing helps offset the increasing cost of supplies and encourages students to conserve resources. To find ways to reduce your printing charges, please go to the IT Help tab on My SMCC. If you have questions about the pay-for-printing policy or your printing charges, please contact the Help Desk at 741-5696 or send an email to helpdesk@smccme.edu.

Be sure to log OUT of the system when you've finished your printing, to prevent unauthorized access to your account.

Add-Drop Policy

Students who drop a course during the one-week "add/drop" period in the fall and spring semesters and the first three days of summer sessions receive a 100% refund of the tuition and associated fees for that course. Please note any course that meets for less than the traditional semester length, i.e., 15 weeks, has a pro-rated add/drop period. There is no refund for non-attendance.

Withdrawal Policy

A student may withdraw from a course only during the semester in which s/he is registered for that course. The withdrawal period is the second through twelfth week of the fall and spring semesters and the second through ninth week of twelve-week summer courses. This period is pro-rated for shorter-length courses. To withdraw from a course, a student must complete and submit the appropriate course withdrawal form, available at the Enrollment Service Center (no phone calls, please). The designation “W” will appear on the transcript after a student has officially withdrawn. A course withdrawal is an uncompleted course and may adversely affect financial aid eligibility. Failure to attend or ceasing to attend class does not constitute withdrawal from the course. There is no refund associated with a withdrawal.

Plagiarism Statement

If an instructor suspects that a student has knowingly committed a violation defined in the Maine Community College System Policy on Student Grade Appeals and Academic Misconduct, the instructor has the authority to review the alleged misconduct and determine the grade that the student should receive for the assignment and the course. The instructor may assign a failing grade for the assignment or course and may require the student to complete additional work for the course. The instructor may consult with the department chair and/or the College’s chief academic officer prior to making such decisions. If a student seeks to challenge an instructor’s determination, the student should submit a grade appeal. Grade appeal forms are available in the Advising Office on the South Portland Campus or in the administrative offices in the Learning Commons on the Midcoast Campus. An instructor may also refer the matter to the College’s disciplinary officer for review under the procedures of the MCCS Student Code of Conduct.