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RES 270T.01: Respiratory Care Laboratory IV

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The University of Montana –Missoula
College of Technology
Respiratory Care Program

RES 270
RESPIRATORY CARE LABORATORY IV

FALL 2006

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Colleen Holmquist, AAS, RRT

Syllabus Outline:

- A. Course Descriptor, Grading, Policies
 - B. Student Performance Outcomes & Objectives
 - C. Required Text, Hand-outs, videos
 - D. Course Outline
 - E. Reading Assignments
 - F. Course Calendar
 - G. Calendar of tests, events
 - H. Clinical Practice Guidelines (CPGs)
 - I. Agreement (sign & turn in)
 - J. Laboratory & Clinical Proficiency Check-offs
 - K. Bird VIP Ventilator Study Questions
 - L. SensorMedics 3100A Certificate Exam for Study
- A. COURSE NUMBER AND TITLE: RES 270T Respiratory Care Laboratory IV**

DATE REVISED: Fall 2006

SEMESTER CREDITS: 1

CONTACT HOURS PER SEMESTER:

Lecture hours per week: 0

Lab hours per week: 3

PREREQUISITE: RES 260T and RES 265T

FACULTY:

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RELATIONSHIP TO PROGRAM:

This course provides hands-on experience for students to apply cognitive knowledge from RES 131T, RES 231T, and RES 241T to simulated hospital experiences.

Psychomotor skills are used to prepare the student for clinical mechanical ventilation and life support hospital experience needed for RES 275T in the neonatal pediatric areas as well as continued applications in adult intensive care.

COURSE DESCRIPTION:

A completion of RES260T with emphasis on neonatal and pediatric critical care.

METHODS OF INSTRUCTION:

Demonstrations and laboratory participation. Students also attend the MSRC spring convention.

STUDENT ASSESSMENT METHODS AND GRADING PROCEDURES:

Exams	Grading Scale	
Final Exams 50%	A = 4.0, 95-100%	C = 2.00, 74-76%
MSRC Convention 15%	A- = 3.67, 90-94%	C- = 1.67, 70-73%
Ventilator Performance Evals 20%	B+ = 3.33, 87-89%	D+ = 1.33, 67-69%
Inservice presentations 15%	B = 3.00, 84-86%	D = 1.00, 64-66%
	B- = 2.67, 80-83%	D- = 0.67, 60-63%
	C+ = 2.33, 77-79%	F = 0.00

Students in Health Programs must have a “B-” final grade in order to progress within their programs. Test questions will be based on unit objectives. Unit objectives are to be used as study guides.

PROFICIENCY EVALUATIONS:

Evaluation is based upon the following:

1. Competition of PEER check-offs listed in the laboratory exercises.
2. Completion of any Integrated Scenario Check-Offs
3. Completion of Laboratory Ventilator and Equipment Exercises
4. Laboratory quizzes, and/or take home assignments.
5. Points accumulated from MSRC convention
6. Inservice on a neonatal/pediatric mechanical ventilator
7. Final written exam.
8. Final practical exam.

METHODS TO IMPROVE COURSE:

Student evaluations and respiratory faculty assessment of course content.

OTHER POLICIES:

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

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.***

ACADEMIC MISCONDUCT:

All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University.

All students need to be familiar with the Student Conduct Code. The Code is available for review online at <http://www.umat.edu/SA/VP/SA/index.cfm/page/1321>.

DISABILITIES:

Eligible students with disabilities will receive appropriate accommodations in this course when requested in a timely way. Please speak with me after class or in my office.

Please be prepared to provide a letter from your DSS Coordinator.

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.

HOMEWORK:

It is the student's responsibility to see that homework is turned in on the day it is due. If it is not in the instructor's mailbox by 4:00 p.m. on the date due, a grade of zero will be used in computing the student's average.

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.

Pop quizzes will be given randomly throughout the semester. Failure to be present for the quizzes will result in a zero being recorded and used in computing your average. 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.

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. Reading 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 units exams and finals can be made easier by frequent review of chapter content reviews.
15. Be in class and don't miss pop quizzes.

LABORATORY ETIQUETTE:

Students will work in groups. Prepare and read materials/exercises before class begins. It is important to actively participate with the equipment. Get direct hands-on experience. Be courteous, the lab will be crowded and cooperation and sharing of equipment is essential. Be attentive to mini-lecture/demonstrations by your instructor. Ask questions. Complete the laboratory exercises in the time allotted and hand it in. Enjoy the lab setting. All conditions are controlled and each performance step is outlined on the checklist. Concentrate on the technical skills and equipment-related aspects.

MSRC CONVENTION LAB GRADE & ETIQUETTE:

Students must attend 80% of the MSRC scheduled presentations, not including Sputum Bowl competition. Students will sign a roster at each presentation attended.

Furthermore, students are representing The University of Montana COT Respiratory Care Program. They are expected to abide by the Student Code of Conduct. Students must realize that potential employers are in attendance. These include home care companies, physicians, department directors and staff, and sales representatives. Students are visible both at the convention site and off-site.

Finally, are not immune to state and local laws regarding under age alcohol consumption,

illegal drug use, or the consequences of alcohol over consumption

B. STUDENT PERFORMANCE OUTCOMES & OBJECTIVES At the end of the course the student will be able to demonstrate neonatal & pediatric competencies involving:

Oxygen and humidity therapy applications,
Endotracheal and oropharyngeal suctioning,
Bag-mask ventilation and resuscitation,
Ventilator set-up, initiation, and monitoring pertaining to HFOV and other neonatal & pediatric mechanical ventilators as presented in lab,
Students will share an inservice to the class on some aspect of a neonatal/pediatric ventilator.
Ventilator parameter changes,
Neonatal CPAP,
Neonatal physical assessment and Chest X-Ray interpretation,
Umbilical Artery Catheter Sampling,
Nitric Oxide therapy

C. REQUIRED TEXTS: None

HAND-OUT: Chapter 16, Neonatal Mechanical Ventilation, from Chang, 3rd ed., Clinical Application of Mechanical Ventilation

VIDEOS/TUTORIALS: To be announced

D. COURSE OUTLINE :

I. Neonatal & Pediatric Mechanical Ventilation

- A. O₂ and humidity systems
- B. CPAP
- C. Mechanical Ventilation

II. High Frequency Oscillatory Ventilation (HFOV) & Nitric Oxide Therapy (NO) and other mechanical vents.

III. Inservice presentation on assigned aspects of various ventilators.

IV. The First 18 Hours of Life Seminar

E. READING ASSIGNMENTS: (May include pertinent journal articles to be assigned by instructors)

1. Chapter 16, Neonatal Mechanical Ventilation from the hand-out noted above.
2. White Chapter 23, pp. 228-235; Ch 29 (on humidity and oxygen for neonates)

3. Additional information on the Bird VIP & SensorMedics 3100A on p. 694 and p. 717 of Mosby's Respiratory Care Equipment. Chapter 45 of Fundamentals of Respiratory Care covers Neonatal and Pediatric Respiratory Care.

ALL READING ASSIGNMENTS SHOULD BE COMPLETED PRIOR TO LAB TIME. It is imperative that you come to lab **prepared**, as the pace will be fast. Laboratory experience is designed to validate your didactic knowledge and prepare you for clinical application of respiratory care procedures.

F. COURSE CALENDAR: (See: attached calendar of tests & events, G.)

Aug 30 – Sep 1:	The First 18 Hours of Life Seminar (Make reservations early (preferably at the Madison, 1.800.538.0375))
Sep 11 - 14:	Ventilator Lab. Demonstration, hands-on, proficiency testing.
Sep 14:	Student inservice presentations.
Sep 14:	Lab final exam.