

**University of Texas Medical Branch  
Respiratory Care Department  
RESC 4444 Adult Critical Care Clinical I  
Course Syllabus – Fall 2009**

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**Course Description:** 4 Credit Hours

This clinical practicum provides the student the opportunity to develop knowledge and skills in patient assessment and delivery of therapeutics in the adult critical care areas. The student practices under direct supervision in medical, surgical, and cardiovascular ICU areas. The student will have opportunity to: 1) observe bedside diagnostic procedures, including fiberoptic bronchoscopy, arterial blood gases, and transport procedures; 2) manage the patient-ventilator system including: initiation, maintenance, monitoring, and weaning procedures; 3) establish and maintain artificial airways; 4) apply secretion clearance maneuvers; 5) administer aerosolized medications; and 6) participate in patient care rounds and case study presentations with critical care physicians. Evaluation is based on successful completion of designated competencies. (240 clinical hours per enrollment period)

*Prerequisite: RESC 3523 Clinical Applications of Mechanical Ventilation; Corequisite: ACLS training.*

**Course Objectives:**

1. Initiate and modify oxygen therapy based on clinical and laboratory assessment.
2. Proficiency in airway maintenance – assess patency, choose appropriate artificial airways, insert and maintain artificial airways.
3. Assessment of radiologic data for endotracheal tube position, invasive line placement and position, and presence/change in pulmonary pathology.
4. Initiation, monitoring, assessment, and adjustment of mechanical ventilation.
5. Setting of ventilator parameters based on assessment of clinical and laboratory data and troubleshooting of the patient-ventilator system.
6. Recommend respiratory therapeutic procedures based on clinical and laboratory assessment.
7. Initiate and follow ACLS algorithms according to clinical assessment.
8. Recommend, administer, and assess the effect of aerosolized medications.
9. Recommend and implement weaning from mechanical ventilation based on clinical and laboratory data. Monitor, evaluate, and adjust the weaning process based on clinical and laboratory data.
10. Recommend invasive and pharmacologic intervention based on clinical and laboratory data (i.e., monitoring of hemodynamic parameters, chest tube placement, thoracentesis, volume replacement, and clinical practice guidelines)
11. Assist with therapeutic procedures. (i.e., bronchoscopy, thoracentesis, patient positioning)
12. Describe the pathophysiology of asthma, COPD, and ARDS.

13. Implement a patient care plan to include patient education and instruction.

**Required Course Materials:**

Textbooks      DataArc Clinical Tracking System  
                         Respiratory Care Journal, current year.  
                         Oakes, D. (2008). *Clinical Practitioner's Pocket Guide to Respiratory Care* (7th ed.). Orono, Maine: Health Educator Publications, Inc.

**Evaluation:** Grades for the course are derived as follows:

Midterm Exam	15%
Final Exam	15%
Case study	10%
Competencies	10%
Evaluations of the Student	10%
Physician interaction	
100 points/semester	5%
Daily Logs & Soap Notes	30%
Evaluations of Instructors/Facility	5%
<b>Total</b>	<b>100%</b>

Mid-Term Exam

At the middle of the semester you will take an adult clinical simulation examination (ACS-5, ACS-19, ACS, 24, or ACS-27). You can review and practice these exams all semester. When you complete the exam on the day of the Mid-Term you will be given a score on information gathering and decision making. The average of these two scores will constitute your Mid-Term exam grade.

Final Exam

At the end of the semester you will take an adult clinical simulation examination (ACS-5, ACS-19, ACS, 24, or ACS-27). It may or may not be the same exam that was given at Mid-Term. You can review and practice these exams all semester. When you complete the exam on the day of the Final you will be given a score on information gathering and decision making. The average of these two scores will constitute your Final exam grade.

Case Study

Each student will prepare an adult case study and care plan that is to be presented to the class at the end of the semester. The care plan should follow the design given to you in class. The presentation should be done in a PowerPoint format. You will be given the requirements and grading criteria later in the semester.

Competencies

Read over the competencies in DataArc prior to your rotation and be able to perform in a clinical setting. It is the responsibility of the student to approach the clinical instructor stating that he/she is prepared for competency testing. Evaluation/feedback is provided away from patient areas.

1. Transport with Oxygen
2. Small Volume Nebulizer and Or Metered Dose Inhaler
3. Airway Clearance
  - a. Chestphysiotherapy (postural drainage, percussion, and vibration)
  - b. Positive expiratory pressure (PEP)
  - c. Intermittent percussive ventilation (IPV)
  - d. Flutter valve
  - e. Vest Therapy
  - f. Endotracheal and tracheal suctioning
  - g. MediNeb (Must add under "Generic")

4. Oxygen delivery devices
  - a. Nasal Cannula
  - b. Simple mask
  - c. Nonrebreather mask
  - d. Venturi mask
  - e. High Flow NC (Must add under "Generic")
5. Arterial Blood Gas (puncture and analysis)
6. Cardiopulmonary resuscitation and manual ventilation
7. Mechanical Ventilation
  - a. Routine ventilator assessment
  - b. Ventilator parameter change

Grading for Competencies is as Follows:

100	Satisfactory completion of 90% of the competencies
90	Completion of 80-89% of the competencies
80	Completion of 75-79% of the competencies
70	Completion of 70-74% of the competencies
60	Completion of fewer than 70%

Physician Interaction (20 points per semester) It is the responsibility of the student to seek physician interaction. The clinical instructors will try to facilitate these activities by providing access to patient rounds, etc. Students must seek opportunities to solicit feedback, clarification of orders, etc. Documentation of physician interaction is accomplished through DataArc using the daily log function. Physician interaction points are earned in 4 categories; Patient Focused, Tutorial, Small group, and Large Group. Patient focused interaction earns 4 points per hour, tutorial interaction earns 3 points per hour, small group interaction earns 2 points per hour, and large group interaction earns 1 point per hour. An example of large group interaction is patient rounds. An example of patient focused interaction is contacting a physician regarding the care of your patient. Grading of physician interaction is as follows:

100	10 points or greater
90	8-9 points
80	6-7 points
70	4-5 points
60	2-3 points
25	0-1 points

#### Post Conference

Students are required to attend post conference on Friday of each week. (See Attendance/Punctuality) Each student will bring a copy of his/her SOAP note and be prepared to present it to the class at conference. Post conference will be in SHP 2.206 every Friday from 10:30am – 12:30pm. No Post Conference on the following dates: September 4<sup>th</sup>, November 27<sup>th</sup>, and December 4<sup>th</sup>.

#### Affective Evaluations

Your clinical instructor will provide an evaluation of your performance in the middle of your rotation (daily evaluation) and an affective evaluation at the end of your rotation. The student is required to view these evaluations and validate them in DataArc. The final grade for affective evaluation is the average of all required evaluations.

### Attendance/Punctuality

Attendance is mandatory. Each student is allowed a maximum of 2 absences and still be able to successfully meet the objectives of the course. Greater than two (2) absences will require repeating the course. Post conference attendance and punctuality is also part of the attendance policy.

Students are expected to adhere to professional conduct which includes responsibility for one's actions and punctuality. Students are required to report to clinical rotations and log into DataArc 15 minutes before the start of the shift. Clocking in ten minutes after the start of shift constitutes as a tardy. Failure to complete a DataArc time clock entry (whether clocking in or clocking out) will constitute a tardy. Two tardies will equal an absence. Clocking in thirty minutes after the start of the shift constitutes as an absence. Leaving before the end of the shift will also be counted as an absence.

### Care Plans (SOAP Notes)

Each student is required to submit one SOAP note each week to WebCT by 8:00am on Friday morning. Each student is required to bring a copy of the SOAP note to conference and be prepared to present it to the group. See Appendix B for a rubric for SOAP notes.

### Daily Logs

Daily Logs are to be completed each day after your clinical rotation. Your daily log is where you must enter physician contact time, the day's most significant experience, and the procedures you completed that day. Grading for Daily Logs is as follows:

100	All Daily Logs completed in required format
75	75% of Daily Logs completed in required format or 100% completed but not in required format
50	50% of Daily Logs completed in required format or 75% completed but not in required format
0	<50% of Daily Logs completed in required format or 50% or less completed but not in required format

### Evaluations

Students are required to evaluate their clinical instructors and clinical facilities after each rotation. These are required as part of your clinical grade.

Evaluations of clinical instructor – 100

No evaluation of clinical instructor – 0

Evaluation of clinical site – 100

No evaluation of clinical site - 0

**Course Policies: The minimum passing score for this course is 70.**

**Academic Progress:** Information regarding the Student's academic progress in this course will be shared with their Academic Advisor and/or Department Chair. Student's making unsatisfactory progress may be referred to the Office of Student Affairs for assistance.

### **University Statement on Equality, Tolerance and Affirmative Action:**

Please indicate by the end of the 2<sup>nd</sup> week of the course if you will need accommodations under the Americans with Disabilities Act (Public Law 101-336). If the need for ADA accommodations should arise during the semester you will need to make your request known to the ADA Coordinator in the Office of Student Affairs

**Academic Integrity:**

Academic dishonesty includes, but is not limited to, cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, and any act designed to give unfair advantage to a student or the attempt to commit such an act.

Procedures to be followed in the event of alleged academic dishonesty are described in the Rules and Regulations of the Board of Regents of The University of Texas System, and the SAHS Student Handbook found at <http://www.sahs.edu>. Alleged academic dishonesty issues should be reported to the Associate Dean for Student Affairs.

**Course Evaluations:**

Students will be given the opportunity to evaluate the performance of the instructor and course near the end of the course/semester. When submitting course evaluations students must follow the guidelines provided by the course instructor or department.

**Tentative Schedule/Course Assignments: (14 Clinical Weeks)**

Week 7	Midterm Exam – Monday, October 12 <sup>th</sup> at Moody Library
Week 14	Case Studies – Nov. 30 – Dec. 2 <sup>nd</sup> at HCC and UTMB
Week 15	Final Exam TBA