

El Paso Community College

Syllabus

Part II

Official Course Description

SUBJECT AREA	<u>Respiratory Care Technology</u>						
COURSE RUBRIC AND NUMBER	<u>RSPT 2461</u>						
COURSE TITLE	<u>Clinical - Respiratory Care Therapy/</u> <u>Therapist</u>						
COURSE CREDIT HOURS	<table style="width: 100%; border-collapse: collapse; margin: 0 auto;"> <tr> <td style="width: 33%; border-top: 1px solid black; border-bottom: 1px solid black; text-align: center;">4</td> <td style="width: 33%; border-top: 1px solid black; border-bottom: 1px solid black; text-align: center;">0</td> <td style="width: 33%; border-top: 1px solid black; border-bottom: 1px solid black; text-align: center;">16</td> </tr> <tr> <td style="text-align: center;">Credits</td> <td style="text-align: center;">Lec</td> <td style="text-align: center;">Lab</td> </tr> </table>	4	0	16	Credits	Lec	Lab
4	0	16					
Credits	Lec	Lab					

I. Catalog Description

Provides a health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. A grade of "C" or better is required in this course to take the next course. **Prerequisite: RSPT 2360. Corequisite: RSPT 2453. (0:16). Professional Practice Insurance required. Therapist Multiple Choice self-assessment exam.**

II. Course Objectives

This section is designed to be used as an adjunct mechanism to help prepare you for proficiency in your clinical work. Students should review these objectives and correlate them with their didactic material for understanding. It is important that you do independent reading and practice clinical procedures in order to attain knowledge and to become clinically proficient in the listed areas.

During the course of this clinical, the student will be able to:

- A. Develop one (1) case studies according to Respiratory Care Program guidelines and to present the case study orally in the Respiratory Care Lab.
- B. Complete assigned hospital rounds with a pulmonary physician practicing in the community by their clinical instructor. Participation is Mandatory.
- C. Complete an overnight rotation at a Sleep Disorder Center. Attendance is mandatory. Refer to **Sleep Lab Rotation Schedule** for specific instructions
- D. Perform three (3) to six (6) complete ventilator assessments on critical care patients using established Respiratory Care Program ventilator assessment criteria. **At least two ventilator assessment must be that of a geriatric patient.**
- E. Perform two (2) complete ventilator assessments on a critical neonate or pediatric patient.
- F. Prior to entering an airborne isolation room all students must follow hospital infection control policies on applying a particulate mask.

During the hands-on portion of clinical, the student will be able to complete the following clinical objectives with 100% accuracy with minimal assistance from the clinical instructors:

- A. Perform four initial adult ventilator set-ups using the following guidelines:
 - 1. Verify the physician's orders
 - 2. Select appropriate equipment
 - 3. Maintain medical asepsis

4. Assemble and test equipment
 5. Adjust ventilator controls to specific orders
 6. Verify E.T.T. placement/cuff pressure
 7. Monitor vital signs/assess patient:
 - a. Temperature, B/P, respiratory rate
 - b. Heart rate/EKG rhythm
 - c. Chest auscultation
 - d. SpO₂, (Svo₂ and ETCO₂, if available)
 - e. Hemodynamic pressures, i.e., CVP, PAP, PAWP, CO
 - f. Level of consciousness
- B. Perform four complete adult ventilator checks, recording the following:
1. Mode of ventilation and respiratory rate (set and total)
 2. Peak inspiratory pressure
 3. Minute volume measurement
 4. Oxygen percentage
 5. PEEP, CPAP, Flow-by or PSV settings
 6. Date, time
 7. Delivered gas temperature
 8. Sensitivity
 9. Tidal volume
 10. Alarm settings
- C. Complete four adult ventilator flowsheets, including the following calculations:
1. Compressed gas volume
 2. Tidal volume: average, corrected, and alveolar
 3. Anatomical deadspace
 4. Minute alveolar ventilation
 5. Dynamic and static compliance
 6. A-a DO₂ gradient
 7. a/A ratio
- D. Perform four complete neonate/infant ventilator checks including the following parameters:
1. Date, time
 2. Mode, rate (set and total)
 3. PIP and PEEP
 4. I:E ratio
 5. Flowrate
 6. F_iO₂, with alarm limits
 7. Delivered gas temperature
 8. Mean airway pressure
 9. H.F.V. amplitude and H₂
 10. SpO₂ reading and alarm limits
 11. Ventilator alarms
- E. Perform one complete ventilator/circuit changeouts on an adult ventilators.
1. Selects appropriate equipment
 2. Prepares and assembles equipment properly
 3. Explains to patient (if possible) upcoming procedure
 4. Removes and reconnects first phase of circuit changeover
 5. Performs last phase of circuit changeover
 6. Checks for leaks in new circuit
 7. Performs complete ventilator check
 8. Charts appropriate comments

- F. Perform two adult ventilator discontinuance using the following steps
 - 1. Remove ventilator from patient (MD's order)
 - 2. Places patient on ordered O₂/humidification device
 - 3. Monitors patient condition and vital signs
 - 4. Correctly terminates therapy
 - a. Correctly discards disposable equipment
 - b. Removes ventilator to cleaning area
 - c. Disassembles all attachments
 - d. Prepares all items for correct type of sterilization

- G. Perform setup/change out of one oxyhoods or bubble CPAP in ICN, adjusting the following parameters:
 - 1. Date and time.
 - 2. Temperature, with alarm limits
 - 3. F_iO₂ with alarm limits
 - 4. Pulse oximeter with alarm limits
 - 5. CPAP level if ordered.

- H. Perform ~~four~~ five (5) endotracheal, tracheal, oral, and nasotracheal suction on a critical care patient using established guidelines.

- I. Perform two weaning criteria on an adult ventilator patient by measuring the following parameters
 - 1. Vital capacity
 - 2. Minute volume
 - 3. Negative inspiratory force
 - 4. Tidal volume
 - 5. Respiratory rate
 - 6. Rapid shallow breathing index

- J. Perform/assist in the removal of two endotracheal tubes (extubation) using established guidelines.

- K. Perform selected procedures during two cardiopulmonary resuscitations as a member of a hospital code arrest team. They may include:
 - 1. Bagging, assisting with airway management or compressing
 - 2. Arterial blood gases
 - 3. Transporter

- L. Perform three to six arterial blood samples (puncture/a-lines) using proper technique.

- M. Perform one to two capillary blood gases on a neonate, infant, or pediatric patient.

- N. Perform one umbilical artery catheter blood gases (if available) on a neonate.

USE THESE GUIDELINES FOR PERFORMANCE OF OBJECTIVES L, M, AND N.

- 1. Implement/utilize universal blood and body fluids precautions
- 2. Restate the preferential puncture sites and needle sizes for various arteries
- 3. Demonstrate the modified Allen's test
- 4. Perform a puncture and/or A-line aspiration
- 5. Demonstrate the technique used to handle a sample:
 - a. Removal of air bubbles
 - b. Labeling and transporting of sample to ABG Lab
 - c. Proper disposal of sharps and contaminated equipment.

- O. Demonstrate competency when analyzing all blood gas samples by:
 - 1. Verifying calibration
 - 2. Correctly entering data into analyzer/computer
 - 3. Correctly introducing sample into analyzer
 - 4. Verifying accuracy of results
 - 5. Proper reporting/documenting of results

- P. Interpret all ten blood gas results.
 - 1. State normal values
 - 2. Identify abnormal results
 - 3. Describe clinical significance of abnormal ABGs
 - 4. Make appropriate recommendations for correcting abnormal ABGs

- Q. Discuss and perform maintenance on two blood gas instruments.
 - 1. Calibration procedure
 - 2. Electrode checks
 - 3. Fluid levels check
 - 4. Calibration gas pressures and percentages checked
 - 5. Quality controls procedure

III. THECB Learning Outcomes (WECM)

As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry.

IV. Evaluation

Students will be scheduled to challenge one CRT mock exam during the semester prior to Finals Week.

Students will be evaluated on their performance of procedures on a daily basis. They will also be evaluated by clinical rotation by the assigned faculty member at each hospital. Students will be evaluated in the areas of attendance, appearance, timeliness, communication skills, comprehension, written assignments, clinical proficiency, and professionalism.

Each student will be responsible for the completion of one (1) written case study and oral presentation as part of the written assignment

Grade Distribution

A.	Completion of clinical objectives.	30%
B.	Clinical rotation evaluations by Clinical Instructors at the end of each hospital rotation, including patient assessments	25%
C.	Written/oral case studies	20%
D.	Mock CRT exam	15%
E.	Comprehensive Clinical Final Exam	<u>10%</u>
		100%

Grading

93 - 100 = A

86 - 92 = B

78 - 85 = C

70 - 77 = D

Below 70 = F or I

Grades averaging 77.5 will be rounded off to the next whole number.

V. Disability Statement (American with/Disabilities Act [ADA])

EPCC offers a variety of services to persons with documented sensory, mental, physical, or temporary disabling conditions to promote success in classes. If you have a disability and believe you may need services, you are encouraged to contact the Center for Students with Disabilities to discuss your needs with a counselor. All discussions and documentation are kept confidential. Offices located: VV Rm C-112 (831-2426); TM Rm 1400 (831-5808); RG Rm B-201 (831-4198); NWC Rm M-54 (831-8815); and MDP Rm A-125 (831-7024).

VI. 6 Drop Rule

Students who began attending Texas public institutions of higher education for the first time during the Fall 2007 semester or later are subject to a 6-Drop limit for all undergraduate classes. Developmental, ESL, Dual Credit and Early College High School classes are exempt from this rule. All students should consult with their instructor before dropping a class. Academic assistance is available. Students are encouraged to see Counseling Services if dropping because exemptions may apply. Refer to the EPCC catalog and website for additional information.