

El Paso Community College

Syllabus

Part II

Official Course Description

SUBJECT AREA	<u>Respiratory Care Technology</u>
COURSE RUBRIC AND NUMBER	<u>RSPT 2230</u>
COURSE TITLE	<u>Examination Preparation</u>
COURSE CREDIT HOURS	<u>2 1 :<!-- 3</u--> Credits Lec Lab</u>

I. Catalog Description

Provides a comprehensive review to optimize respiratory care credentialing exam success. A grade of “C” or better is required in this course to take the next course. **Prerequisite: RSPT 1307. Corequisite: RSPT 2461. (1:3). Mock Exam CRT fee. Mock Exam RRT fee.**

II. Course Objectives

- A. Unit I. Patient Assessment, Care Management, and Infection Control
1. Review patient history
 2. Observe and assess radiographic imaging
 3. Interview the patient
 4. Observe the patient’s respiratory condition
 5. Measure and record patient vital signs
 6. Use palpation to determine patient respiratory condition
 7. Use auscultation to determine patient respiratory condition
 8. Perform neonatal assessment
 9. Determine and monitor patient response to treatment and procedure
 10. Record treatments and procedures
 11. Follow established infection-control policies
 12. Decontaminate respiratory care equipment
 13. Dispose of biohazardous materials
- B. Unit II. Blood Gas Analysis and Monitoring and Pulmonary Function Testing
1. Identify the indications for arterial blood gas sampling and analysis
 2. Perform arterial puncture for sampling
 3. Analyze blood samples
 4. Interpret blood gas values
 5. Use pulse-oximetry
 6. Use transcutaneous oxygen and carbon dioxide monitoring systems
 7. Formulate a respiratory care plan based on values obtained
 8. Review patient chart for pulmonary function data
 9. Perform bedside spirometry
 10. Perform and interpret bedside spirometric procedures
 11. Interpret flow-volume loops, bronchodilator challenge, lung volumes, and DLCO tests
 12. Formulate a respiratory care plan based on PF values
 13. Perform quality assurance and quality control
- C. Unit III. Advanced Cardiopulmonary Monitoring and Oxygen and Medical Gas Therapy
1. Set up, observe, and interpret capnographic information
 2. Calculate dead space to tidal volume ratio

3. Obtain and interpret mixed venous blood sampling
 4. Set up, observe, and interpret SVO₂ monitor
 5. Set up, observe, and interpret other cardiopulmonary monitoring equipment
 6. Formulate respiratory care plan based on cardiopulmonary monitoring
 7. Determine adequacy of oxygenation
 8. Set up and monitor oxygen and mixed gas analyzers
 9. Identify proper storage, hardware used for, and distribution of medical gases
 10. Administer oxygen therapy
 11. Set up oxygen and other gas therapy mixtures
 12. Follow AARC guidelines and protocols for medical gas therapy
- D. Unit IV. Hyperinflation Therapy and Humidity and Aerosol Therapy
1. Perform and teach assisted cough and deep breathing
 2. Perform incentive spirometry and use incentive spirometry equipment
 3. Formulate a respiratory care plan for hyperinflation therapy
 4. Set up and monitor humidity and aerosol generator devices
 5. Explain the use and protocol of medication delivery devices
 6. Observe, identify, and interpret breathing patterns and lung deposition sites
 7. Formulate respiratory care plan for aerosol, and medicine delivery
- E. Unit V. Pharmacology and Bronchopulmonary Hygiene Therapy
1. State rationale for and administer medications
 2. Solve drug dosage problems
 3. Formulate a medication care plan
 4. Perform postural drainage
 5. Set up and use positive expiratory pressure therapy
 6. Set up, observe, and monitor high frequency airway oscillation
 7. Formulate a bronchopulmonary care plan
- F. Unit VI. Cardiac Monitoring, Cardiopulmonary Resuscitation, and Airway Management
1. Interpret typical cardiac monitoring
 2. Set up and use equipment for cardiopulmonary resuscitation (CPR)
 3. Perform CPR and related functions
 4. Formulate a status post CPR care plan
 5. Recall and perform proper care of artificial airways and equipment
 6. Perform endotracheal intubation
 7. Perform proper care and maintenance of artificial airway
 8. State proper technique for tracheal tube change-out
 9. Follow proper sequence for endotracheal tube extubation
 10. Formulate a care plan for patients with artificial airways
- G. Unit VII. Suctioning the Airway and Intermittent Positive Pressure Breathing
1. Use suctioning devices
 2. Use vacuum regulation devices
 3. Perform suctioning of tracheal and oral secretions
 4. Formulate a care plan for patients requiring airway suctioning
 5. Initiate and adjust intermittent positive pressure breathing (IPPB)
 6. Evaluate patient response to IPPB
 7. Use IPPB equipment
 8. Formulate an IPPB care plan
- H. Unit VIII. Mechanical Ventilation of the Adult and the Neonate
1. Review patient chart for orders concerning mechanical ventilation
 2. Use mechanical ventilation to ensure adequate ventilation and oxygenation
 3. Set up, use, and monitor mechanical ventilation equipment
 4. Monitor and evaluate patient response to mechanical ventilation
 5. Modify mechanical ventilation based on patient response/status
 6. Formulate a mechanical ventilation care plan

7. Set up and monitor continuous positive airway pressure mechanical ventilation to ensure adequate ventilation and oxygenation in the neonate
8. Use mechanical ventilation equipment for neonate and pediatric patients
9. Formulate a care plan for neonate/pediatric patient on mechanical ventilation

I. Unit IX. Home Care, Pulmonary Rehabilitation, and Special Procedures

1. State proper patient and family teaching
2. State protocols for home respiratory care services
3. State protocols for pulmonary rehabilitation
4. Formulate a care plan for home care and pulmonary rehabilitation services
5. Transport the respiratory care patient
6. Assist the physician during special respiratory care procedures
7. State assessment and care of sleep-disordered breathing patients
8. Formulate a respiratory care plan for patients with sleep disorders
9. Perform quality care and quality assurance on polysomnography equipment

III. THECB Learning Outcomes (WECM)

1. Recall concepts and theories in respiratory therapy.
2. Apply concepts and theories in respiratory therapy.
3. Analyze concepts and theories in respiratory therapy.

IV. Evaluation

At the end of one or more units, students will be tested on material related to those units.

Minimum passing score is 75%. A final examination will be administered. In addition, quizzes, homework, and lab work will be assigned throughout the semester. Special assignments may be included at the discretion of the instructor. Late exams and assignments will be penalized 5 points for every day beyond the due date.

In addition, the final for this course will be the secure Written Registry Examination (WRE)

Final Grade Distribution Percent of Grade

Unit Exam	70
Quizzes/Homework/lab	10
Final Exam	<u>20</u>
	100

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.