

Midland College
Master Syllabus
RSPT 1411
Respiratory Care Procedures II
**Core Curriculum Course*

Course Description:

Develops essential knowledge and skills of airway care and mechanical ventilation

End-of-Course-Outcomes

Set up equipment; describe concepts of mechanical ventilation; perform artificial airway insertion, airway management, manual resuscitation, suctioning, arterial sampling techniques, and blood gas analysis and interpretation; troubleshoot equipment; maintain patient records; and communicate relevant information to members of the health care team.

Text, References, and Supplies:

Egan's Fundamentals of Respiratory Care, 12th ed., Craig Scanlan, Mosby
Clinical Application of Mechanical Ventilation, 4th ed. David W. Chang, Delmar
Mosby's Respiratory Care Equipment, 8th ed., J M Cairo, Susan Pilbeam, Mosby

Disclaimer

The instructor reserves the right to make modifications to this course throughout the semester. The above schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstance, by mutual agreement, and/or to ensure better student understanding.

Students MUST actively participate by completing an academic assignment required by the instructor by the official census date. Students who do not actively participate in an academically-related activity will be reported as never attended and dropped from the course.

Course Objectives and Student Learning Outcomes

- I. Identify how gas exchange is analyzed and monitored and demonstrate ability of ABG interpretation
 - A. Differentiate and describe the characteristics of various types of oxygen analyzers
 - B. Identify techniques used to assess gas exchange and when they are indicated
 - C. Select equipment for monitoring procedures and ensure its proper function
 - D. Explain how to measure inspired oxygen concentration
 - E. Obtain, process and analyze blood gas samples
 - F. Describe when and how to perform co-oximetry
 - G. Interpret pulse oximetry results
 - H. Explain the use of capnograms
 - I. Interpret blood gas results
- II. Describe the function and application of manual resuscitators
 - A. Identify resuscitator valve types

- B. Discuss various type of manual resuscitators and discuss common hazards associated with using these devices
- C. Describe the difference between flow-inflating and self-inflating manual resuscitators
- D. Select different types of masks used on manual resuscitators
- E. Identify devices on manual resuscitators and explain their function
- F. Provide adequate manual resuscitation
- III. Determine proper equipment utilized for airway management
 - A. Describe the indications for artificial airways
 - B. List the various types of airways
 - C. Determine usage of each airway
 - D. Demonstrate correct technique of airway insertion
 - E. Identify markings on different airways
 - F. Demonstrate correct care of each airway
 - G. Identify common indications, contraindication and hazards associated with various airways
- IV. Demonstrate proficiency in the technique for endotracheal intubation
 - A. Identify indications for endotracheal intubation
 - B. Determine how the route of intubation is determined
 - C. Describe the technique for oral and nasal intubations
 - D. Describe how to assess and confirm proper ET tube placement
 - E. Describe the procedure for a tracheotomy
 - F. List and describe the complications associated with airways and long term intubation
- V. Explain the importance of the RCP in maintenance of the airway
 - A. Demonstrate proper technique in securing the artificial airway
 - B. Determine methods for providing for patient communication
 - C. Ensure adequate humidification to the artificial airway
 - D. Understand the importance of cuff care in the intubated patient
 - E. Troubleshoot airway emergencies
- VI. Explain the function of the equipment and proper technique of suctioning
 - A. Describe the use of various suction catheters
 - B. Identify the indications for suctioning
 - C. Identify and minimize the hazards associated with suctioning
 - D. Demonstrate proper technique for suctioning
 - E. Determine appropriate suction catheter size
 - F. Determine appropriate suction pressure
- VII. Describe the process of extubation
 - A. Demonstrate procedure of orotracheal and nasotracheal extubation
 - B. Understand removal of tracheostomy tubes
 - C. Identify hazards associated with extubation
 - D. Explain the rationale of applying appropriate oxygen, humidity therapy, and medication therapy post extubation
- VIII. Identify indications and contraindications of mechanical ventilation
 - A. Define respiratory failure and distinguish between its two primary types
 - B. Compare and contrast acute and chronic respiratory failure

- C. Identify causes of respiratory failure
- D. Justify ventilatory support in special circumstances
- IX. Demonstrate proficiency in initiating mechanical ventilation
 - A. Differentiate between physician ordered and therapist controlled parameters
 - B. Differentiate between pressure ventilation and volume ventilation
 - C. Establish an appropriate minute volume for initial ventilator settings
 - D. Establish appropriate FiO₂ setting for initial mechanical ventilation
 - E. Explain the relationship between flow, inspiratory time, and expiratory time
- X. Differentiate between common modes of mechanical ventilation
 - A. Define the terms trigger, limit, and cycle as they pertain to modes of mechanical ventilation
 - B. Differentiate between ventilator breaths and spontaneous breaths as they relate to modes of mechanical ventilation
 - C. Produce graphic representations of different modes of mechanical ventilation
 - D. Describe controlled mandatory ventilation (CMV)
 - E. Describe assist control ventilation
 - F. Differentiate between intermittent mandatory ventilation and synchronized intermittent mandatory ventilation
 - G. Differentiate between pressure control and volume control ventilation
 - H. Describe pressure support mode (PSV)
 - I. Describe continuous positive airway pressure (CPAP) mode of ventilation
 - J. Differentiate between PSV and CPAP

Evaluation of Students

A minimum of five (5) exams will be given and a comprehensive final (unless otherwise designated by the instructor). The final exam is 20% of the final grade. Quizzes are 15% of the final grade. Test/exam questions will come from lecture, reading assignments and homework assignments. Most tests will be objective in nature. All students must take the final exam (failure to do so can result in the inability to proceed to the next semester within the program).

5 Major Exams	55%
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- Exam 1 (Course Objective I)
- Exam 2 (Course Objective II & III)
- Exam 3 (Course Objective IV)
- Exam 4 (Course Objective V, VI, VII)
- Exam 5 (Course Objective VIII, IX)

5 Quizzes	15%
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- Quiz 1 (Course Objective I)
- Quiz 2 (Course Objective II & III)
- Quiz 3 (Course Objective IV)
- Quiz 4 (Course Objective V, VI, VII)
- Quiz 5 (Course Objective VIII, IX)

Laboratory exercises and competencies: 10%

- Arterial Blood Gas Puncture (Course Objective I)
- Manual Resuscitation with Mask (Course Objective II)
- Adult Intubation (Course Objective III, IV, V)
- Tracheostomy Care (Course Objective III, IV, V)
- Suctioning (Course Objective III, IV, V, VI)
- Extubation (Course Objective III, IV, V, VI)
- Weaning Parameters (Course Objective VIII)

Final Exam (Course Objective I-X) 20%

A written final examination will be administered during the scheduled finals week. It will be comprehensive for the entire semester classes.

Each student is expected to take exams as scheduled. If an exam is missed for any reason, the student must take the exam on the student's first day back on campus or a grade of "0" will be recorded for the missed exam. Ten percent will automatically be deducted from the make-up exam score. No more than two exams per semester may be made-up (for each course). Exams may not be taken early in any class.

Final exams must be taken at the scheduled time without exception.

All final exams must be taken to proceed within the respiratory care program.

Grading Standards:

- A 90-100%
- B 80-89%
- C 70-79%
- F <69%

The above competencies must have three "Assisted" or "Performed" documented in Trajecsyst, prior to the instructor evaluation for competency. During the instructor evaluation the student must satisfactorily PASS the competency evaluation items, including core components. At that time APPROVE will be documented in Trajecsyst and the student will receive a 100% for the competency evaluation. If the student does not satisfactorily PASS the competency evaluation items, including core components, the competency will be documented as NOT APPROVED in Trajecsyst, the student will receive a 50% for that attempt, and may have one attempt at re-evaluation after approved remediation. Upon re-evaluation, the student must satisfactorily PASS the competency evaluation items, including core components; however an average of the two attempts (75%) will be recorded in the grade book. If the student is unsuccessful on the re-evaluation, they will be removed from the course.

Attendance:

Your attendance is the biggest predictor of your success. Attendance at every class is expected. Attendance will count for 5% of the final grade.

Student Contributions, Responsibilities and Class Policies:

Each student will spend at least 4 hours per week preparing for class. Attendance is critical in this class. The college attendance policy will be followed.

Class Policies

All classroom performance and behavior will be considered academic.

Advising

Any student that scores below a 70 on an exam is responsible for emailing the instructor and scheduling an advising session within 24 hours of the exam review.

Make Up exam Policy

Each student is expected to take exams as scheduled. If an exam is missed for any reason, the student must take the exam on the student's first day back on campus or a grade of "0" will be recorded for the missed exam. Ten percent will automatically be deducted from the make-up exam score. No more than two exams per semester may be made-up (for each course). Exams may not be taken early in any class.

All personal communication devices are to be placed on silence/vibrate during class time. If you must answer your device, please leave the immediate area.

No personal communication devices allowed in testing areas.

Scholastic Dishonesty and Academic Misconduct

The Midland College Policy will be followed.

Course Schedule:

This class meets for 3 lecture hours and 3 lab hours. Monday and Wednesday lecture 10 – 11:20. You will be in one of the following labs: Monday 1-3:50 or Wednesday 1-3:50

Students are encouraged to contact the instructor at any time; however, making an appointment will guarantee the instructor's availability at a specific time.

Division Information:

Division Chairman: Miranda Poage, PhD

Division Office Location and Telephone: 208, 685-4600

AMERICANS WITH DISABILITIES ACT (ADA) Statement:

Midland College provides services for students with disabilities through Student Services. In order to receive accommodations, students must visit www.midland.edu/accommodation and complete the Application for Accommodation Services located under the Apply for

Accommodations tab. Services or accommodations are not automatic, each student must apply and be approved to receive them. All documentation submitted will be reviewed and a “Notice of Accommodations” letter will be sent to instructors outlining any reasonable accommodations.

NON-DISCRIMINATION STATEMENT:

Midland College does not discriminate on the basis of race, color, national origin, sex, disability or age in its program and activities. The following individuals have been designated to handle inquiries regarding the non-discrimination policies:

Wendy A. Kane

Dean of Student Life

Midland College

Title IX Coordinator/Compliance Officer

3600 N. Garfield, SSC 131

Midland, TX 79705

(432) 685-4781

Title9@midland.edu

For further information on notice of non-discrimination, visit the ED.gov Office of Civil Rights website, or call 1 (800) 421-3481.

Licensure Eligibility Notification

Completion of Midland College degrees and/or certificates does not guarantee eligibility to take a certification/registry/licensure examination. The eligibility of each person is determined on an individual basis by the regulatory body of the specific discipline. If you have a conviction of a crime other than a minor traffic violation, physical or mental disability/illness, hospitalization/treatment for chemical dependency within the past five years, current intemperate use of drugs or alcohol or a previous denial of a licensure or action by a licensing authority, you will need to contact the specific regulatory body for an individual ruling. Some programs require a criminal background check and urine and drug screen.