

Midland College
RSPT 2247
Specialties in Respiratory Care
Master Syllabus

Course Description: Emerging and specialty practices in respiratory care

Text, References, and Supplies:

Kacmarek, Stoller, Heuer. Egan's Fundamentals of Respiratory Care.

11th Edition, Mosby/Elsevier. 2017

Burton, Respiratory Care: A Guide to Clinical Practice. Fourth Edition, Lippincott. 1997.

Heuer. Wilkins' Clinical Assessment in Respiratory Care, 7th Edition. Mosby. 2014.

Kacmarek, The Essentials of Respiratory Care, Fourth Edition. Mosby. 2005.

Hess, Respiratory Care, Principles and Practices, 2nd Edition. Saunders, 2012.

Des Jardins, Clinical Manifestations & Assessments of Respiratory Disease. 8th Edition. Mosby. 2020

Madama. *Pulmonary Function Testing and Cardiopulmonary Stress Testing,* (2ndEd.). Delmar. 1998.

Walsh. *Neonatal and Pediatric Respiratory Care,* (4th ed.). Elsevier. 2015.

Disclaimer

The instructor reserves the right to make modifications to this course throughout the semester.

Course Objectives and Student Learning Outcomes:

1. List the quality control procedures applied to blood gas analysis
2. Discuss Bronchial Challenge Testing
3. Describe the use and function of chest tubes and three bottle collection systems.
4. List and discuss the use of composite and global scores to measure patient status in the intensive care unit, such as the acute physiology, age, chronic health evaluation system for scoring the severity of illness.
5. Discuss the importance of monitoring neurologic status in the ICU and the variables that should be monitored.

6. Describe how a comprehensive nutrition assessment is conducted.
7. Distinguish between two forms of protein-energy malnutrition.
8. List the biochemical indicators of nutrition status.
9. Describe the clinical manifestations of malnourishment.
10. Describe how to obtain and evaluate a nutrition history.
11. Estimate daily resting energy expenditure.
12. List the indications, contraindications, hazards, and limitations of indirect calorimetry.
13. Describe how to prepare a patient for indirect calorimetry.
14. Interpret the results of indirect calorimetry.
15. Adjust resting energy expenditure values to reflect the actual patient energy needs.
16. Describe the effects of malnutrition on the respiratory system.
17. Describe how to identify patients at high risk for malnutrition.
18. State when enteral nutrition and parenteral nutrition are needed.
19. Identify and minimize common respiratory complications of enteral feedings.
20. List specific nutrition guidelines for specific pulmonary diseases.
21. Explain how common pulmonary medications affect nutrition.
22. Describe how to perform capnometry and interpret capnograms.
23. Understand and explain the definition and goals of pulmonary rehabilitation.
24. Describe indications for HBO
25. List expected outcomes for HBO
26. List hazards associated with HBO
27. Relate monoplace HBO to multiplace HBO
28. Describe indications for ECMO
29. List inclusion criteria for ECMO
30. List exclusion criteria for ECMO
31. List expected outcomes for ECMO
32. List hazards associated with ECMO
33. Discuss methods for providing ECMO
34. Identify the components of the ECMO circuit
35. Relate veno-venous and veno-arterial ECMO
36. Describe indications for iNO
37. List expected outcomes for iNO
38. List hazards associated with iNO
39. Describe how iNO is administered
40. Identify the components of the iNO circuit
41. Describe indications for sleep studies
42. List expected outcomes for sleep studies
43. List hazards associated with sleep studies

44. Discuss the method for performing a sleep study
45. Identify the parameters monitored during a sleep study
46. Discuss how a sleep study is scored
47. Describe indications for midline line placement.
48. Identify the sites for midline placement.
49. List hazards associated with an midline line.
50. Identify the sites for a PICC line placement
51. List hazards associated with a PICC placement
52. Identify the sites for a central line placement
53. List the hazards of central line placement
54. Identify which labs should be observed before placing any type of vascular access device.
55. Discuss procedures for vascular access selection/insertion
56. Identify the indications and uses for lung ultrasound
57. Understand the value of a cover letter and resume
58. List potential questions that could be asked in an interview.
59. List important components of a resume.
60. Know the purpose of a cover letter.
61. Describe the importance of TDP's.
62. How can TDP's help in healthcare
63. Discuss how the knowledge base of a respiratory therapist important for TDP's.
64. List how TDP's can help prevent readmissions.
65. Identify obstacles to a successful TDP's in hospitals.
66. Understand why length of stay (LOS) is an important monitor in hospitals.
67. Describe indications for electroencephalograms
68. List expected outcomes for electroencephalograms
69. List hazards associated with electroencephalograms
70. Discuss how an electroencephalogram is obtained
71. Discuss the role of transport and the respiratory therapist
72. Discuss the role of leadership within respiratory therapy

Evaluation of Students

Evaluation Method:

Attendance	5%
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Exams	50%
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Exam 1

Exam 2

Exam 3

Worksheets /Assignments	25%
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Chest Tubes ClinSim

HBO worksheet

Sleep Assessment worksheet

Nutrition worksheet

ECMO worksheet

Bronchoscopy Worksheet

Inhaled Nitric Oxide worksheet

Metabolic monitoring worksheet

Exercise stress testing

EEG/EMG worksheet

Cover Letter and Resume

TDP worksheet

Leadership Assignment

Transport Assignment

Neuro/Capnometry Worksheet

Final Examination	20%
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A written final examination or final project presentations will be administered during the scheduled finals week.

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.

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

Grading Standards:

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

Student Contributions 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.

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:

The class meets for 2.5 lecture hours per week. Tuesdays from 2:00pm – 4:40 pm

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.

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The above-named course syllabus and licensure eligibility notification has been received by and explained to me. I have read, understood, and will adhere to the same.

Student's signature

Date

This sheet must be returned to your instructor by the end of the first week of class.