

Midland College
Syllabus
RSPT 2305
Pulmonary Diagnostics
3 credit hours (2-2-0)

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Course Description:

In this course the student will study the theories and techniques involved in pulmonary function testing diagnostics with emphasis on: blood gas theory and analysis, quality control, oximetry and capnography.

Text, References and Supplies:

Kacmarek, Stoller and Heuer, Egan's Fundamentals of Respiratory Care, 11th edit., St. Louis, Missouri; Mosby, 2017.

Student Learning Outcomes:

Upon successful completion of the course the student will:

1. List normal arterial blood gas values
2. List normal venous blood gas values
3. List normal capillary blood gas values
4. Interpret normal and abnormal blood gas results
5. Describe arterial blood gas puncture procedure
6. Describe how to draw blood from an arterial line
7. Describe capillary blood gas sampling procedure
8. Describe the maintenance and identify the components of the blood gas machine
9. Identify the co-oximeter and the pulse oximeter
10. Describe blood gas analysis
11. Explain ventilation tests
12. List normal pulmonary function test (PFT) values
13. Explain abnormal pulmonary function test (PFT) values
14. Explain diffusion tests, gas distribution tests and perfusion tests
15. Perform lung volume determination
16. Perform pulmonary mechanics testing
17. Analyze pulmonary function test (PFT) values

Student Contributions, Responsibilities and Class Policies:

Attendance is critical in this class. Each student will spend at least 6 hours per week preparing for class. Class disruptions are disrespectful. Phone calls, messaging, texting or any other use with a personal communication device is firmly discouraged. If you must answer a call, please excuse yourself from the classroom.

Evaluation of Students:

A minimum of two (2) tests will be given plus a comprehensive final (unless otherwise designated by the instructor). Tests questions will come from lecture, reading assignments and extra credit assignments. Absolutely no personal communication devices are allowed in testing areas. Please refer to the NBRC student handbook for restrictions during tests.

Grading Breakdown

Item	Percent of Final Grade
Exams	70%
Attendance	10%
Final Exam	20%
Total	100%

Curriculum and course advisement from the Respiratory Care staff will be provided during registration and during office hours posted at the instructor's office. The instructor may give continual advisement to a student as needed and when required throughout the span of the course. Assessments are made of the student through testing. Students will also assess and evaluate their progress, their instructor, the program objectives, the learning strategies and the general competencies. The assessments are tools utilized to review, evaluate and if necessary implement changes to the learning materials, the delivery of said; and the strategies for instruction.

Course Schedule:

Monday and Wednesday from 0800 – 1150.

Safety Training:

Students receive annual training in the following: blood and air borne pathogens, electrical safety, back safety, hazardous chemicals, latex allergies, fire and disaster procedures, security and personal safety procedures and safety requirements of clinical facilities. Students must maintain current CPR, immunizations, and health insurance during all clinical courses.

Americans with Disabilities Act (ADA):

Any student who, because of a disabling condition, may require some special arrangements in order to meet course requirements should contact the Counselor/Disability Specialist at 432-685-4505 as soon as possible. The office is located in the Scharbauer Student Center Building. These conditions may include documented physical or educational disabilities. Please be aware that services or accommodations are not automatic. Each student must request them and secure the proper authorizations/documentation.

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:

Tana Baker

Title IX/504 Coordinator and Compliance Officer

3600 N. Garfield, SSC 242

Midland, TX 79705

(432) 685-4781

tbaker@midland.edu

Or

Natasha Morgan

Human Resources/Payroll Director

3600 N. Garfield, PAD 104

Midland, TX 79705

(432) 685-4534

nmorgan@midland.edu

For further information on notice of non-discrimination, visit the Office of Civil Rights website at <https://wdcrobcolp01.ed.gov/CFAPPS/OCR/contactus.cfm> for the address and phone number of the office that serves your area 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.