

## Course Syllabus

COURSE: RSPT 2325.200 – Cardiopulmonary Diagnostics  
SEMESTER: Spring 2015  
CLASS LOCATION: Reese Building 5 Room 521  
CLASS TIMES: 11:00 AM – 12:50 PM  
Tuesday-Thursday  
INSTRUCTOR: Ron Edwards, BS, RRT  
OFFICE: Room 519  
OFFICE HOURS: Monday & Wednesday: 2:00 PM – 4:00 PM  
Tuesday & Thursday: 1:30 PM – 3:00 PM  
Other Times by Appointment  
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*"South Plains College improves each student's life."*

### GENERAL COURSE INFORMATION

#### COURSE DESCRIPTION

This course is a study of physical, radiological, hemodynamic, laboratory, nutritional, and cardiopulmonary diagnostic assessment of the pulmonary patient.

#### STUDENT LEARNING OUTCOMES

Students will:

1. Interpret the various laboratory and clinical data necessary to assess and manage cardiopulmonary disorders;
2. Perform various cardiopulmonary diagnostic procedures.

#### COURSE OBJECTIVES - Outline form (correlated to Scans and Foundations Skills)

1. Acquire and evaluate information through such procedures as physical examination, blood gases, pulmonary functions and hemodynamics. (F-1, F-2, F-5, F-6, F-7, F-8, F-9, F-10, F-12, C-5, C-6, C-7, C-14, C-19, C-20)
2. Interpret data from physical examination and laboratory testing, and communicate that data to other members of the healthcare team. (F-1, F-2, F-5, F-6, F-7, F-8, F-9, F-10, F-12, C-5, C-6, C-7, C-9, C-14)
3. Distinguish trends in laboratory test results and/or physical findings, predict the impact on the patient, and choose the appropriate response to correct problems. (C-16)
4. Choose the appropriate testing modalities for a given patient problem. (C-18)
5. Use assessment data to specify patient goals, suggest modifications to current treatment modalities, or design new treatment plans, consider risks, and choose the best alternative to improve patient performance. (F-8, C-17)
6. Choose the correct formula and calculate hemodynamic values and indexes. (F-3, F-4)

#### EVALUATION METHODS

1. Six unit exams will be given. **Make up exams will not be given.** The lowest scored unit exam grade will be dropped and not calculated into the exam percentages.
2. A comprehensive final examination will be given.
3. Computer-assisted educational modules that are assigned.

#### ACADEMIC INTEGRITY

It is the aim of the faculty of South Plains College to foster a spirit of complete honesty and a high standard of integrity. The attempt of any student to present as his or her own any work which he or she has not honestly performed is

regarded by the faculty and administration as a most serious offense and renders the offender liable to serious consequences, possibly suspension.

**Cheating** - Dishonesty of any kind on examinations or on written assignments, illegal possession of examinations, the use of unauthorized notes during an examination, obtaining information during an examination from the textbook or from the examination paper of another student, assisting others to cheat, alteration of grade records, illegal entry or unauthorized presence in the office are examples of cheating. Complete honesty is required of the student in the presentation of any and all phases of coursework. This applies to quizzes of whatever length, as well as final examinations, to daily reports and to term papers.

**Plagiarism** - Offering the work of another as one's own, without proper acknowledgment, is plagiarism; therefore, any student who fails to give credit for quotations or essentially identical expression of material taken from books, encyclopedias, magazines and other reference works, or from themes, reports or other writings of a fellow student, is guilty of plagiarism.

### **SCANS and FOUNDATION SKILLS**

This course completes the following Foundation Skills: F-1, F-2, F-3, F-4, F-5, F-6, F-8, F-9, F-10, and F-12. This course completes the following SCANS competencies: C-3, C-5, C-6, C-7, C-8, C-15, C-16, C-17, C-18, C-19, and C-20. Refer also to Course Objectives. SCANS and Foundation Skills attached.

### **VERIFICATION OF WORKPLACE COMPETENCIES – Health Occupations Division**

Successful completion of this course is required for the student to be eligible to sit for the Certification Exam for Entry-Level Respiratory Therapists, and to obtain a Texas License to practice Respiratory Care.

## **SPECIFIC COURSE INFORMATION**

### **TEXT AND MATERIALS**

Students are required to obtain the following:

1. Wilkins, Robert L. Clinical Assessment in Respiratory Care, 7<sup>th</sup> Ed., (2014). By Mosby, an imprint of Elsevier Inc. (ISBN: 978-0-323-10029-8)
2. American Heart Association Advanced Cardiac Life Support Provider Manual - American Heart Association, Incorporated (2011) - Paperback (ISBN: 978-1-61669-010-6)

### **ATTENDANCE POLICY**

Attendance indicates the maturity, motivation, responsibility, and reliability expected of a student entering the respiratory care profession. Regular attendance RSPT 2325 is necessary to gain proficiency in respiratory care procedures.

1. Whenever absences become excessive and, in the instructor's opinion, minimum course objectives cannot be met due to absences, the student should be withdrawn from the course. These cases will be handled on an individual basis.
2. Whenever an unavoidable reason for class absence arises, such as illness, an official trip authorized by the college or an official activity, the instructor may permit students to make up work missed for that absence day.
3. The instructor is required to notify the Office of Student Services when the student has missed every class day during any 14 consecutive calendar day period, excluding holidays.
4. Students are responsible for all class work covered during absences from class.
5. A student who does not attend a class and does not officially withdraw from that course by the 12<sup>th</sup> class day in a regular semester or by the 4<sup>th</sup> class day in a summer session will be administratively withdrawn from that course and receive an "X" or "F" as determined by the instructor.
6. It is the student's responsibility to verify administrative drops for excessive absences through MYSPC using

his or her student online account.

## ASSIGNMENT POLICY

1. Students are expected to maintain a study schedule at home to keep current with classroom discussions.
2. Students must complete laboratory exercises during lab time, individually or in small groups, as assigned. Laboratory exercises and skills practice allows the student to apply the reading and lecture material to actual performance of skills.
3. Students must complete the lab proficiencies listed in the syllabus for each unit. When the student feels he/she has had sufficient lab practice and have completed any assigned lab exercises, he/she may attempt to perform the lab proficiency. When successfully completed, the student may practice the learned skill in the clinical setting under direct supervision. When the student feels sufficiently prepared, he/she may attempt the procedure in an actual patient setting under direct observation of a clinical instructor. If successfully completed, the student may then perform the skill in the clinical setting. If the proficiency is not successfully completed, the student must return to practice and attempt the skill at another time.
4. Computer – assisted instruction
  - a. Students are expected to complete the following computer modules:
    1. Hemodynamics Part I
    2. Hemodynamics Part II
    3. Hemodynamics Part III
  - b. The assigned computer-assisted learning modules are available on the respiratory care computers located in the Respiratory Care Laboratory.
  - c. Computer time may be scheduled at the student’s convenience during the hours the laboratory is available.
  - e. Students must turn in copies of test scores or completion certificates **prior to** the test for unit 3. Module test scores will be averaged for computer module grade. Students should schedule their time accordingly. **Late computer modules will not be accepted, and students will receive a grade of “zero”.**

**GRADING POLICY** - Grades in this course will be determined using the following criteria:

Unit Exams:	65%
Computer Module/Assignments:	15%
Comprehensive Final:	20%

A = 90 – 100	B = 80 -89
C = 75 -79	F = 0- 74

Successful completion of this course requires:

1. A final grade of “C” or better.
2. Successful completion of all laboratory and assigned proficiencies.
3. Following course attendance policy during the semester.

## COMMUNICATION POLICY

- Electronic communication between instructor and students in this course will utilize the South Plains College “My SPC”, blackboard, and email systems. Instructor will not initiate communication using private email accounts. Students are encouraged to check SPC email and blackboard on a regular basis.
- Blackboard is an e-Education platform designed to enable educational innovations everywhere by connecting people and technology. This educational tool will be used in this course throughout the semester.

## FACEBOOK

- The Respiratory Care Program has a Facebook page at <http://www.facebook.com/SouthPlainsCollegeRespiratoryCare>.

- In addition to the South Plains College website, this Facebook page will be used to keep students up-to-date on program activities, weather delays, South Plains College announcements and will help with program recruitment. “Liking” the South Plains College Respiratory Care Facebook page is not mandatory, nor are personal Facebook accounts, in order to access this page.

### CHANGES AND AMENDMENTS TO SYLLABUS

- The program director or the clinical coordinator reserves the right to make reasonable changes to the syllabus at any time during the semester. If this occurs, the students will be notified and furnished a copy of all applicable changes or amendments.

### STUDENT CONDUCT

- Students in this class are expected to abide by the standards of student conduct as defined in the SPC Student Guide

### SPECIAL REQUIREMENTS

- **Cell Phones** – Cell phones are to be turned OFF during scheduled class periods, unless prior approval has been given from the instructor. This includes text messaging. Cell phones are to be used outside the classroom only.

## COURSE OUTLINE

- Unit 1:            Cardiopulmonary Disorders of Circulation**  
Reading Assignment: Notes  
Exam #1
- Unit 2:            Cardiac Output**  
Reading Assignment: Wilkins Chapter 16  
Formula Worksheet  
Exam #2
- Unit 3:            Invasively Monitored Hemodynamic Pressures**  
Reading Assignment: Wilkins Chapter 15  
Computer Modules: Hemodynamics Part I, II, and Part III  
Lab  
Exam #3
- Unit 4:            Capnography, Exhaled Nitric Oxide (FeNO), ECMO, Nitric Oxide, and PLV**  
Reading Assignment: Wilkins, pp. 331-333 and pp. 196-198  
Notes  
Exam #4
- UNIT 5:           Advanced Physical Assessment, Nutritional Assessment, Chest Tubes, and Chest Radiography**  
Lab  
Reading Assignment: Wilkins Chapters 5, 6, 18, and 10.  
Notes  
Exam #5
- Unit 6:            Clinical Laboratory Studies**  
Reading Assignment: Wilkins Chapter 7  
Notes  
Exam #6

### Comprehensive Final Exam

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## **ACCOMMODATIONS**

### **DIVERSITY STATEMENT**

In this class, the teacher will establish and support an environment that values and nurtures individual and group differences and encourages engagement and interaction. Understanding and respecting multiple experiences and perspectives will serve to challenge and stimulate all of us to learn about others, about the larger world and about ourselves. By promoting diversity and intellectual exchange, we will not only mirror society as it is, but also model society as it should and can be.

### **DISABILITIES STATEMENT**

#### **ADA Statement**

Students with disabilities, including but not limited to physical, psychiatric, or learning disabilities, who wish to request accommodations in this class should notify the Disability Services Office early in the semester so that the appropriate arrangements may be made. In accordance with federal law, a student requesting accommodations must provide acceptable documentation of his/her disability to the Disability Services Office. For more information, call or visit the Disability Services Office through the Guidance and Counseling Centers at Reese Center (Building 8) [716-4606](tel:716-4606), or Levelland (Student Services Building) [716-2577](tel:716-2577).

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## **FOUNDATION SKILLS**

### **BASIC SKILLS—Reads, Writes, Performs Arithmetic and Mathematical Operations, Listens and Speaks**

F-1 Reading—locates, understands, and interprets written information in prose and in documents such as manuals, graphs, and schedules.

F-2 Writing—communicates thoughts, ideas, information and messages in writing and creates documents such as letters, directions, manuals, reports, graphs, and flow charts.

F-3 Arithmetic—performs basic computations; uses basic numerical concepts such as whole numbers, etc.

F-4 Mathematics—approaches practical problems by choosing appropriately from a variety of mathematical techniques.

F-5 Listening—receives, attends to, interprets, and responds to verbal messages and other cues.

F-6 Speaking—organizes ideas and communicates orally.

### **THINKING SKILLS—Thinks Creatively, Makes Decisions, Solves Problems, Visualizes and Knows How to Learn and Reason**

F-7 Creative Thinking—generates new ideas.

F-8 Decision-Making—specifies goals and constraints, generates alternatives, considers risks, evaluates and chooses best alternative.

F-9 Problem Solving—recognizes problems, devises and implements plan of action.

F-10 Seeing Things in the Mind's Eye—organizes and processes symbols, pictures, graphs, objects, and other information.

F-11 Knowing How to Learn—uses efficient learning techniques to acquire and apply new knowledge and skills.

F-12 Reasoning—discovers a rule or principle underlying the relationship between two or more objects and applies it when solving a problem.

### **PERSONAL QUALITIES—Displays Responsibility, Self-Esteem, Sociability, Self-Management, Integrity and Honesty**

F-13 Responsibility—exerts a high level of effort and perseveres towards goal attainment.

F-14 Self-Esteem—believes in own self-worth and maintains a positive view of self.

F-15 Sociability—demonstrates understanding, friendliness, adaptability, empathy and politeness in group settings.

F-16 Self-Management—assesses self accurately, sets personal goals, monitors progress and exhibits self-control.

F-17 Integrity/Honesty—chooses ethical courses of action.

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## SCANS COMPETENCIES

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C-1 **TIME** - Selects goal - relevant activities, ranks them, allocates time, prepares and follows schedules.

C-2 **MONEY** - Uses or prepares budgets, makes forecasts, keeps records and makes adjustments to meet objectives.

C-3 **MATERIALS AND FACILITIES** - Acquires, stores, allocates, and uses materials or space efficiently.

C-4 **HUMAN RESOURCES** - Assesses skills and distributes work accordingly, evaluates performances and provides feedback.

### **INFORMATION - Acquires and Uses Information**

C-5 Acquires and evaluates information.

C-6 Organizes and maintains information.

C-7 Interprets and communicates information.

C-8 Uses computers to process information.

### **INTERPERSONAL—Works With Others**

C-9 Participates as member of a team and contributes to group effort.

C-10 Teaches others new skills.

C-11 Serves Clients/Customers—works to satisfy customer’s expectations.

C-12 Exercises Leadership—communicates ideas to justify position, persuades and convinces others, responsibly challenges existing procedures and policies.

C-13 Negotiates—works toward agreements involving exchanges of resources; resolves divergent interests.

C-14 Works With Diversity—works well with men and women from diverse backgrounds.

### **SYSTEMS—Understands Complex Interrelationships**

C-15 Understands Systems—knows how social, organizational, and technological systems work and operates effectively with them.

C-16 Monitors and Corrects Performance—distinguishes trends, predicts impacts on system operations, diagnoses systems performance and corrects malfunctions.

C-17 Improves or Designs Systems—suggests modifications to existing systems and develops new or alternative systems to improve performance.

### **TECHNOLOGY—Works with a Variety of Technologies**

C-18 Selects Technology—chooses procedures, tools, or equipment, including computers and related technologies.

C-19 Applies Technology to Task—understands overall intent and proper procedures for setup and operation of equipment.

C-20 Maintains and Troubleshoots Equipment—prevents, identifies, or solves problems with equipment, including computers and other technologies.



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Course Agreement

RSPT 2325.200

I have received a copy of the course syllabus. I have reviewed the syllabus thoroughly, and understand the course format, attendance and tardy policies, and examination system. I further understand my responsibilities and rights, as explained by the instructor and listed also in the syllabus, and agree to all course requirements as stated in the syllabus.

Student's Name (print)

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Student's Signature

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Date \_\_\_\_\_