

Reese Campus

Course Syllabus

COURSE: RSPT 1331.200 Respiratory Care Fundamentals II
SEMESTER: Spring 2015
CLASS TIMES: 12:00- 1:40 PM
Monday-Wednesday-Friday
INSTRUCTOR: Krista Young, BS, RRT-NPS
OFFICE: 520
OFFICE HOURS: Monday & Wednesday: 1:45 PM – 3:00 PM
Tuesday & Thursday: 10:00 AM – 12:00 PM
Friday: 9:00 AM- 12:00 PM
Other Times By Appointment
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"South Plains College improves each student's life."

GENERAL COURSE INFORMATION

COURSE DESCRIPTION

Provides a continued development of knowledge and skills for respiratory care. Topics include bronchial hygiene therapy, lung expansion therapy, artificial airways, manual resuscitation devices, suctioning, pulse oximetry, arterial sampling techniques, and blood gas analysis and interpretation.

COURSE OBJECTIVES and STUDENT LEARNING OUTCOMES- Outline form (correlated to Scans and Foundations Skills)

- I. Describe physiologic effects, goals, hazards, and techniques of lung inflation therapy (F1, 2, 3, 5, 6, 8, 9, C7, 18, 19, 20)
 - A. Identify the common types of atelectasis and list their causes
 - B. Identify patients that would benefit from lung expansion therapy
 - C. Describe clinical findings seen in atelectasis
 - D. Explain how lung expansion therapy works
 - E. List indications, hazards, and complications associated with the various modes of lung expansion therapy
 - F. Describe the function of the equipment utilized to treat atelectasis
 - G. List the primary responsibilities of the respiratory care practitioner in planning, implementing, and evaluating lung expansion therapy
- II. Demonstrate an understanding of the indications, rationale, contraindications, and techniques for bronchial hygiene therapy (F1, 2, 5, 6, 8, 9, 12, C7)
 - A. Describe how normal airway clearance mechanisms work and what can impair their function
 - B. Describe diseases associated with abnormal clearance of secretions
 - C. List goals and indications that apply to bronchial hygiene therapy
 - D. Assess the need for bronchial hygiene therapy
 - E. Select and perform various bronchial hygiene techniques including:
 1. Postural drainage, percussion and vibration
 2. Directed coughing and related expulsion techniques
 3. PEP therapy
 4. High-frequency oscillation methods
 5. Mobilization and exercise
 - F. Monitor and evaluate a patient's response to bronchial hygiene therapy

- G. Modify bronchial hygiene therapies on the basis of patient response
- III. Describe the function and application of manual resuscitators (F1, C18, C19, C20)
 - 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 resuscitators²
 - E. Identify devices on manual resuscitators and explain their function
 - F. Provide adequate manual resuscitation
- IV. Determine proper equipment utilized for airway management (F1, F3, F8, C18, C19, C20)
 - 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
- V. Demonstrate proficiency in the technique for endotracheal intubation (F1, F3, F8, C18, C19, C20)
 - 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
- VI. Explain the importance of the RCP in maintenance of the airway (F1, F3, F8, C18, C19, C20)
 - 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
- VII. Explain the function of the equipment and proper technique of suctioning (F1,F3, F8, C18, C19, C20)
 - 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
- VIII. Describe the process of extubation (F1,F3, F8, C18, C19, C20)
 - 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
- IX. Identify how gas exchange is analyzed and monitored and demonstrate ability of ABG interpretation (F1, 2, 8, C7, 18, 19, 20)
 - 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. Understand blood gas analysis via blood gas machines
- E. Identify indications, contraindications, hazards of arterial blood gas sampling
- F. Describe when and how to perform co-oximetry
- G. Interpret pulse oximetry results
- H. Interpret blood gas results
- X. Demonstrate proficiency in peak flow measurement (F1,F3, F8, C18, C19, C20)
 - A. Indications of peak flow measurement
 - B. Calculate predicted PEFr
 - C. Demonstrate ability to instruct peak flow measurement
 - D. Identify effects of bronchodilator therapy in regards PEFr

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.

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.

SCANS and FOUNDATION SKILLS

Refer also to Course Objectives. SCANS and Foundation Skills attached

SPECIFIC COURSE INFORMATION

TEXT AND MATERIALS

1. Cairo, J.M., & Pilbeam, S.P. Mosby's Respiratory Care Equipment, 9th Ed., (2013)
2. Workbook to accompany Mosby's Respiratory Care Equipment, 9th Ed., (2013)
3. Kacmarek, Robert M. Egan's Fundamentals of Respiratory Care, 10th Ed.,(2013)
4. Data Arc license

EVALUATION METHODS

1. Unit Examinations
2. Assignments
3. Lab Competencies
4. Final Examination

ATTENDANCE POLICY

Regular attendance in RSPT 1331 is necessary to gain proficiency in respiratory care procedures. The student is required to make up any class work missed due to an absence. There are no excused absences. Please refer to the South Plains College General Catalog (2014-2015) for specific policies on classroom attendance. The advantages of attending every class and reading the text cannot be overemphasized.

ASSIGNMENT POLICY

Students are expected to maintain a reading schedule at home to keep current with classroom discussions. **Late assignments will not be accepted.**

1. Workbook Assignments: Details of workbook assignments will be posted on Blackboard.

LAB COMPETENCIES

1. Students must complete laboratory exercises during lab time, individually or in small groups, as assigned. Laboratory exercises and skills practice allow the student to apply the reading and lecture material to actual performance of skills.
2. Students will be required to successfully complete the following competencies in lab:

Adult CPT	Nasotracheal suctioning-adult
IPPB	Cuff Management
Mucous Clearance Adjuncts	Endotracheal intubation-Adult
Incentive Spirometer	Extubation-Adult
Setup and ventilate via mask-adult	Endotracheal suction-adult
Setup and ventilate via ETT-adult	Inline suction-adult
Pulse oximetry	Aerosol T-piece
Securing artificial airway	Peak flow measurement

All competencies MUST be documented in DataArc by the clinical instructor evaluating the student. The student will be evaluated as:

-Satisfactory (100%)- ready for clinical application with minimal supervision. Performed procedure accurately.

-Unsatisfactory performance - not ready for clinical application. Requires remediation under one of the following categories:

- **Minor – Unsatisfactory (75%):** Needs to review fundamental concepts or requires re-evaluation of minor deficiency(s) (ex. forgets to wash hands during the **Follow-up** stage. Must be re-evaluated on this step not the whole procedure).
- **Major – Unsatisfactory (50%):** Requires additional lab practice and complete re-evaluation of the procedure
- If the student receives an unsatisfactory rating (either minor or major), the student may attempt the competency on another laboratory day when he/she has reviewed the procedure and feels prepared. If the student does not successfully complete the competency after the 3rd try, he/she must schedule a conference with the DCE before attempting the competency again.
- Each competency attempt will be scored (as indicated above). Ex: If a student scores a 75% on the first attempt and then a 100% on second attempt, the score entered into the grade book is 87.5 for that particular competency.
- The student is not considered proficient in a lab competency until a satisfactory rating has been achieved.

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

Unit Exams	60%
Assignments	10%
Lab Competencies	5%
Comprehensive Final	25%

A = 90 - 100

B = 80 - 89

C = 75 - 79

F = < 75

Students will be allowed to drop their lowest unit exam grade. Make-up exams will not be given.

Successful completion of this course requires:

1. A final grade of 'C' (75%) or better

COMMUNICATION POLICY

Electronic communication between instructor and students in this course will utilize the South Plains College "My SPC" and email systems. Instructor will not initiate communication using private email accounts. Students are encouraged to check SPC email on a regular basis.

The Respiratory Care Program has a Facebook page at <https://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 Respiratory Care Program Facebook page is not mandatory, nor is personal Facebook accounts, in order to access this page.

If necessary, students may contact me on my personal cell phone between the hours 8:00 am-7:30 pm M-F. On the weekends/holidays, please do not contact me before 10:00 am and after 6:00 pm. If you need to reach me after the hours listed, please send an email to my SPC email.

CELL PHONE, PAGERS, and OTHER ELECTRONIC DEVICES

Cell phones distract from the learning environment. For this reason, they should be turned off and put away out of view upon entering the classroom. If you must carry a pager or phone to class for emergency purposes, please see me in advance. If you bring a laptop to class, it should not be used for purposes other than taking notes in class. You may not record lectures in this class.

CLASSROOM ETIQUETTE

Talking incessantly with your neighbor during lectures is not acceptable behavior. If you repeatedly talk in class, I will ask you to leave the room. Please do not leave once class begins to get a snack, get a drink, or any other activity.

CHANGES and AMENDMENTS TO SYLLABUS

The program director or 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 pages 11-14.

COURSE OUTLINE

Unit 1 Airway Clearance Therapy

Reading Assignment: Class notes
Egan, Chapter 40

Lab Competencies: Chest physiotherapy, Mucous Clearance Adjuncts

Unit 1 Exam

Unit 2 Lung Expansion Therapy

Reading Assignment: Egan, Chapter 39
Cairo, Chapter 7
Class notes

Lab Competencies: Incentive Spirometer, IPPB

Unit 2 Exam

Unit 3 Airway Management I

Reading Assignment: Class notes
Egan, Chapter 33- pg 733-745
Cairo, Chapter 5-pg 117-124; 147-154

Lab Competencies: Naso-tracheal suctioning-adult, endotracheal suctioning-adult, in-line suctioning-adult, setup and ventilate via mask-adult, setup and ventilate via ETT-adult

Unit 3 Exam

Unit 4 Airway Management II

Reading Assignment: Class notes
Egan, Chapter 33- pg 745-778
Cairo, Chapter 5- pg 124-147

Lab Competencies: Endotracheal intubation- adult, Extubation- adult, cuff management, aerosol T-piece, securing artificial airway

Unit 4 Exam

Unit 5 Analysis and Monitoring of Gas Exchange/Peak flow measurement

Reading Assignment: Class notes
Egan, Chapter 18
Cairo, Chapter 10

Lab Competencies: Pulse oximetry, peak flow

Unit 5 Exam

Comprehensive Final Exam

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

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).

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.

SCANS COMPETENCIES

- 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.



RESPIRATORY CARE

Course Agreement

RSPT 1331.200

SPRING 2015

I have received a copy of the course syllabus for RSPT 1331-200. 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.

Printed Name

Signature

Date