

Introduction to Respiratory Care (RSPT 1201)



Credit: 2 semester credit hours (2 hours lecture, 1 hour lab)

Prerequisite: Acceptance into the Respiratory Care Program

Co-requisite: None

Course Description:

An introduction to the field of respiratory care. Topics include the history of respiratory care, hospital organization, medical malpractice, ethics, vital signs, body mechanics, basic cardiopulmonary assessment, infection control, and cardiopulmonary resuscitation (CPR).

Required Textbook and Materials

1. Egan's Fundamentals of Respiratory Care (ISBN # 978-0-323-03657-3)
2. Egan's Fundamentals of Respiratory Care Workbook (ISBN # 978-0-323-05188-0)
3. Basic Life Support for Healthcare Providers, American Heart Association # 80-1010
4. DataArc[®] access

Course Objectives

The student will be able to :

1. Discuss/identify the history and future of the Respiratory Care Profession (SCANS: F1, F2, F13, F14)
2. Outline/identify the organization and function of hospital departments (SCANS: F7, C3, C4, C9, C14)
3. Describe/ identify issues related to ethical and legal decisions (SCANS: F1, F2, F7, F9, F17)
4. Describe/ identify/ perform and interpret basic vital signs and cardiopulmonary assessment (SCANS: F5, F6, F8, F9, C5, C6, C7, C11, C16, C18, C19, C20)
5. Describe/identify/perform proper body mechanics (SCANS:F8,C3,C18,C19,C20))
6. Describe/identify and perform CPR (SCANS: F1, F8, F13, C5, C7, C9, C11, C16, C18, C19, C20)
7. Describe/identify/ perform infection control techniques. (SCANS: C5, C18, C19)

SCANS Skills and Competencies

Beginning in the late 1980's, the U.S. Department of Labor Secretary's Commission on Achieving Necessary Skills (SCANS) conducted extensive research and interviews with business owners, union leaders, supervisors, and laborers in a wide variety of work

settings to determine what knowledge workers needed in order to perform well on a job. In 1991 the Commission announced its findings in *What Work Requires in Schools*. In its research, the Commission determined that “workplace know-how” consists of two elements: foundation skills and workplace competencies.

Course Outline

- I. The Respiratory Care Profession
 - A. History of Respiratory Care
 - B. Professional organization
 - 1. American Association for Respiratory Care
 - 2. NBRC- National Board for Respiratory Care
 - 3. State organizations
 - C. Respiratory Care Education
 - 1. Associate and Bachelor programs
 - 2. Accrediting Agency
 - 3. Requirements for NBRC eligibility
 - 4. Future of Respiratory Care
 - 5. Jobs
 - 6. Specialty exams
 - 7. License
 - 8. Quality and Evidence Based Respiratory Care
- II. Hospital organization
 - A. Types of facilities
 - B. Internal organization
- III. Ethics/ Legal
 - A. Ethical dilemmas
 - B. AARC Code of ethics
 - C. Ethical theories and Principles
 - 1. Autonomy
 - 2. Veracity
 - 3. NonMaleficence
 - 4. Beneficence
 - 5. Confidentiality
 - 6. Justice
 - 7. Role Duty
 - 8. Formalism
 - 9. Consenquentialism
 - 10. Mixed approaches
 - 11. Virtue ethics
 - 12. Instuitonism
 - 13. Decision making models
 - 14. Systems of Law
 - 15. Health Insurance Portability Protection Act
 - 16. Negligence
 - 17. Advanced directives
 - 18. Medical Supervision

RSPT 1201
Course Syllabi

- 19. Scope of Practice
- 20. Malpractice
- IV. Patient safety/ Body mechanics
 - A. Movement and Ambulation
 - B. Electrical safety
 - C. Fire Hazards
- V. Cardiopulmonary assessment
 - A. Patient Interview
 - B. Common cardiopulmonary signs and Symptoms
 - 1. Dysnea
 - 2. Cough
 - 3. Sputum production
 - 4. Hemoptysis
 - 5. Chest Pain
 - a) Pleuritic
 - b) Non-Pleuritic
 - 6. Temperature- core
 - a) Hyperthermia
 - b) Hypothermia
 - 7. Pedal edema
 - 8. Clubbing
 - 9. Accessory muscle use
 - C. Physical
 - 1. General appearance
 - 2. Level of Consciousness
 - 3. Vital Signs
 - a) Pulse
 - b) Blood Pressure
 - (1) Hypertension
 - (2) Hypotension
 - c) Respiratory rate
 - (1) Bradypnea
 - (2) Tachypnea
 - d) Capillary refill
 - e) Peripheral skin temperature
- VI. Parts of the Exam
 - A. Inspection
 - 1. Cyanosis
 - 2. JVD
 - 3. Thoracic Configurations
 - a) AP diameter
 - b) Pectus Carinatum
 - c) Pectus Excavatum
 - d) Scolosis
 - e) Kyphosis
 - f) Kyphoscoliosis

RSPT 1201
Course Syllabi

4. Breathing Patterns
 - a) Apnea
 - b) Biots
 - c) Cheyne-Stokes
 - d) Kussmauls
 - e) Paradoxical
5. Palpation
 - a) Vocal Fremitus
 - b) Thoracic expansion
 - c) Skin and Subcutaneous tissue
6. Percussion
 - a) Normal resonance
 - b) Hyperresonance
 - c) Hyporessonance
7. Auscultation
 - a) The stephoscope Technique
 - (1) Normal sounds
 - (a) Vesicular
 - (b) Bronchovesicular
 - (c) Tracheal
 - (2) Adventitious Sounds
 - (a) Wheezing
 - (b) Rales
 - (c) Stridor
 - (d) Pleural friction rub
 - (3) Abdominal examination
 - (a) Quadrants
 - (b) Tenderness

VII. Infection Control

- A. Hand hygiene
 1. Importance
 2. Soaps vs alcohol based products
 3. Technique
- B. Personal Protective Equipment
 1. Gloves
 2. Respiratory Protection
 3. Gowns
 4. Isolation
 5. Technique

VIII. Cardiopulmonary resuscitation

- A. Causes and Prevention of Sudden death
- B. Hazard and complications
- C. Contraindications
- D. Determine unresponsiveness
- E. Restoring airway (adult, child and infant)
 1. Head tilt chin lift

RSPT 1201
Course Syllabi

2. Jaw thrust
3. Obstructed airway
 - a) Abdominal thrusts
 - b) Back blows
 - c) Chest thrusts
 - d) Foreign body removal
- F. Restoring ventilation (adult, child and infant)
 1. Assessing for Ventilation
 2. Providing ventilation
 3. Mouth to mouth
 4. Mouth to nose
 5. Bag –valve- mask
 6. Depth
 7. Rate
 8. Evaluating effectiveness
- G. Restoring circulation (adult, child and infant)
 1. Assessing for circulation
 2. Providing Chest compressions
 - a) Position
 - b) Depth
 - c) Rate
 3. Evaluating effectiveness

Grade Scale

93 – 100	A
85 – 92	B
77 – 84	C
68 – 76	D
0 – 67	F

Course Evaluation

Final grades will be calculated according to the following criteria:

4 Exams	90%
Lab/Assignments	10%

Course Requirements

1. 4 exams
2. Homework assignments: Egan workbook- Chapters 1, 2,3,4,5,15,34 (pages 339-345)
3. American Heart Association Healthcare Provider Certification in CPR
4. Demonstrate competency in Hand washing, Isolation techniques, vital signs (heart rate, respiratory rate, blood pressure), chest assessment
5. Sign and submit the “Statement of Understanding” of the Respiratory Care Handbook

RSPT 1201
Course Syllabi

6. Sign and submit the “Individual Instructor Requirements” for course

Course Policies

1. No food or drink, or use of tobacco products in class
2. Beepers, telephones, headphones, and other electronic devices must be turned off while in class
3. No children allowed in the classroom
4. No late assignments will be accepted
5. Abide by LIT policies
6. Abide by policies within the Respiratory Care Handbook
7. Abide by instructor specific policies; this will be distributed on the first class day.
8. Exam dates will be distributed the first class day.

Disabilities Statement

The Americans with Disabilities Act of 1992 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. Among other things, these statutes require that all students with documented disabilities be guaranteed a learning environment that provides for reasonable accommodations for their disabilities. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409) 880-1737 or visit the office in Student Services, Cecil Beeson Building.

Course schedule:

Week	Topic	Required Reading
1	History of RC/ Future of RC	Egan Chapter 1
2	Hospital organization	Egan Chapter 2
3	Patient Safety	Egan Chapter 3
4	Infection Control and Exam #1(Egan chapter 1, 2 and 3 due)	Egan Chapter 4
5	Ethical and Legal	Egan Chapter 5
6	Heart rate, respiratory rate, blood pressure	Egan Chapter 15
7	Patient assessment- Inspection, Palpation	Egan Chapter 15
8	Patient assessment- Percussion, Auscultation	Egan Chapter 15
9	Exam #2(Egan chapters 4,5and 15 due)	
10	CPR	BLS- text, Egan Chapter 34- Pages 743-756
11	CPR/ Exam #3	BLS- text, Egan Chapter 34- pages 743-756
12	Exam #4- Comprehensive	

Exact exam dates will be distributed on the first class day. This scheduled may be adjusted to facilitate student learning.

Lab schedule:

Week	Topic	Required Reading
1	AARC video, Web sites – AARC, NBRC, TSRC. Dealing with death and dying, Non-verbal Communication and Culture, Cross Cultural Communication: How Culture Affects Communication.	
2	Moving and turning, Transfer and ambulation(DVD)	Egan Chapter 3
3	Infection Control Skills (DVD)- and practice, Isolation procedures (DVD) and practice	DataArc [®] - Hand washing competency- Isolation procedure competency
4	HIPPA video, Age-Specific Care- Isolation procedures practice	DataArc [®] - Hand washing competency- Isolation procedure competency
5	Measuring Vital signs(DVD) and practice	DataArc [®] - vital sign competency
6	Chest assessment video and practice	DataArc [®] - chest assessment competency
7	Practice all competencies to prepare for check offs.	
8	Competency check offs--- Hand washing, isolation procedures	DataArc [®] - Hand washing competency- Isolation procedure competency
9	Competency check offs- vital signs- heart rate, respiratory rate, blood pressure	DataArc [®] - vital sign competency
10	CPR	BLS- text, Egan Chapter 34- Pages 743-756
11	CPR	BLS- text, Egan Chapter 34- pages 743-756
12	Competency check off- chest assessment	DataArc [®] - chest assessment competency

Contact Information:

Instructor: Mrs. Cynthia McKinley

Office: 241 MPC

Telephone: 409-880-8851

E-mail: cindy.mckinley@lit.edu

Office hours: Posted outside office. Additional times are available by appointment.