

**SEWARD COUNTY COMMUNITY COLLEGE
COURSE SYLLABUS**

I. TITLE OF COURSE: RT1126- Respiratory Therapy Procedures I

II. COURSE DESCRIPTION: 6 credit hours
4 credit hours of lecture and 2 credit hours of lab per week.

This four-hour lecture, two-hour lab course is designed to acquaint the student with fundamental patient assessment skills to include chest auscultation, vital signs, and ability to perform a basic physical assessment. In addition, students will learn medication delivery via small volume nebulizer, MDI's and DPI's, theory of equipment operation, and indications and hazards of clinical applications. Content also includes therapeutic gas administration, humidity and aerosol therapy, hyperinflation therapy, and chest physiotherapy. Laboratory sections are used to familiarize the student with operation, safety, and assembly of various pieces of equipment and to practice application of knowledge gained in election to patient care. Clinical sections will introduce students to the clinical setting allowing them to apply concepts learned in class and lab to patient care. The clinical and laboratory components are graded as a pass/fail and the theory with a letter grade. If either component is failed, the concurrent component is also failed.

For each unit of credit, a minimum of three hours per week with one of the hours for class and two hours for studying/preparation outside of class is expected.

Pre-requisite: Admission to the Respiratory Therapy program.

III. PROGRAM AND/OR DEPARTMENT MISSION STATEMENT:

The Respiratory Therapy Program of Seward County Community College provides an educational forum responsive to the needs of the health care community with emphasis to maximize professional potential and foster the development of competent and compassionate respiratory care practitioners.

IV. TEXTBOOK AND MATERIALS:

1. Kacmarek, R. M., Stoller, J. K., and Heuer, A. J. (2021). Egan's fundamentals of respiratory care (12th Ed.). St. Louis: Elsevier.
2. Hinski, S. (2014). Respiratory care clinical competency lab manual. St. Louis: Elsevier.
3. Peepity access.

V. SCCC OUTCOMES

Students who successfully complete this course will demonstrate the ability to do the following SCCC Outcomes.

- 1: Read with comprehension, be critical of what they read, and apply knowledge gained to real life.
- 5: Demonstrate the ability to think critically by gathering facts, generating insights, analyzing data, and evaluating information.
- 7: Understand each other, moving beyond simple acceptance to embracing and celebrating the rich dimensions of diversity by working as a team to learn, engaging with community, exhibiting cultural awareness, and creating equity. 1
9. Exhibit workplace skills that include respect for others, teamwork competence, attendance/punctuality, decision making, conflict resolution, truthfulness/honesty, positive attitude, judgment, and responsibility.

VI. COURSE OUTCOMES:

1. Demonstrate appropriate communication skills and behaviors when working with fellow students, physicians, instructors, and other health care providers.
2. Describe the need for and methods of documenting patient care/outcomes for the medical record.
3. Identify, define, and apply medical terminology and standard abbreviations and symbols used in pulmonary physiology and respiratory care.
4. Assess a patient's clinical status to ascertain the need for medical intervention.
5. Develop respiratory care plan based on patient assessment.
6. Recommend appropriate therapy based on the patient assessment.
7. Evaluate patient outcome and recommend modification to respiratory care plan, as indicated.
8. Delineate the basic safety considerations involved in patient care.
9. Apply basic physics to the practice of respiratory care.
10. Identify, describe, and recommend appropriate respiratory care procedures and equipment to be used in the support and treatment of cardiopulmonary disorders.
11. Demonstrate laboratory and clinical proficiency in selection, assembly, application, monitoring, and troubleshooting various pieces of respiratory therapy equipment.
12. Demonstrate basic patient assessment skills to include vital signs, breath sounds, palpation, percussion, and patient interview.
13. Determine the clinical status based on the obtained patient assessment data.
14. Explain and demonstrate appropriate techniques for CPT, incentive spirometry, and pulmonary breathing exercises.
15. Assemble necessary equipment, explain and apply appropriate techniques for administering humidity therapy.
16. Explain rationale, assemble required equipment, and apply high flow and/or low flow oxygen systems.
17. Evaluate patient's inspiratory flow rates and calculate total delivered flows necessary to meet or exceed the patient's demand.
18. Explain the therapeutic use of oxygen.
19. Discuss and apply the various delivery devices used in oxygen therapy.
20. Recommend modifications in prescribed therapy based on current patient status.
21. Demonstrate laboratory competency by successfully completing the following performance evaluations:
 - a. Handwashing
 - b. Patient interaction
 - c. Vital signs
 - d. Patient assessment
 - e. Identify, assemble, and perform small volume nebulizer
 - f. Identify, assemble, and perform MDI and DPI
 - g. Identify and assemble oxygen systems
 - h. Gas cylinder handling
 - i. Identify and assemble chest physiotherapies and lung expansion therapies
 - j. Perform and obtain arterial blood gases
22. Demonstrate Clinical Competency by successfully completing the following performance evaluations:
 1. Arterial Blood Gas (ABG) Analysis
 2. Arterial Line Sampling
 3. Arterial Puncture (ABG)
 4. Assisted Cough
 5. Basic Spirometry
 6. Bedside Pulmonary Function Test
 7. Bland Aerosol Therapy (face tent/face mask)
 8. Breath Sounds
 9. Breathing Techniques
 10. Chest Percussion and Postural Drainage (adult, pediatric. & neonatal)
 11. DPI Administration
 12. DPI Education
 13. Electrocardiogram (ECG/EKG)
 14. Exercise Testing

15. Hand washing
 16. Heated High Flow Nasal Cannula
 17. High Frequency Chest Wall Oscillation (HFCWO)
 18. Humidity Therapy
 19. Incentive Spirometer
 20. Intermittent Positive Pressure Ventilation
 21. Intrapulmonary Percussive Ventilation
 22. Isolation Procedure
 23. Mechanical Insufflation Exsufflation (MIE)
 24. Metered Dose Inhaler (MDI) Administer
 25. Metered Dose Inhaler (MDI) Education
 26. Oxygen Administration (nasal cannula, simple mask, partial rebreather, nonrebreather, air entrainment mask)
 27. Oxygen Tank Setup
 28. Patient Assessment
 29. Peak Flowmeter
 30. Positive Expiratory Pressure (PEP)
 31. Pulse Oximeter
 32. Small Volume Nebulizer (SVN)
 33. Sputum Induction
 34. Vital Signs
23. Demonstrate laboratory and clinical proficiency in selection, assembly, and application, monitoring, and troubleshooting various pieces of respiratory therapy equipment.

VII. COURSE OUTLINE:

1. Standard and Transmission Based Precautions
2. Patient Contact
3. Terminology
4. Review of a Patient Medical Record
5. Vital signs
6. Physical Assessment
7. Cardiopulmonary symptoms
8. Delivery of aerosolized medication/MDI/DPI
9. Oxygen therapy
10. Handling compressed gas cylinder
11. Lung Volumes & Capacities
12. Clinical Laboratory Studies
13. Arterial Blood Gases
14. Infection Control/Decontamination
15. Humidity & Bland Aerosol Therapy
16. Bronchial Hygiene Therapy
17. Lung Expansion Therapy

VIII. INSTRUCTIONAL METHODS:

1. Textbooks and Handouts
2. Lecture and Discussion
3. Out of Class Assignments
4. Audiovisuals
5. Canvas

IX. INSTRUCTIONAL AND RESOURCE MATERIALS:

1. Textbooks and Journals
2. Audiovisual Material

3. Laboratory Equipment
4. Computer Tutorials and Simulations
5. Article Reviews
6. Canvas

X. METHODS OF ASSESSMENT:

SCCC Outcome #1 will be assessed and measured by class participation and successful completion of unit exams indicating comprehension of material read.

SCCC Outcome #5 will be assessed and measured by satisfactory respiratory care plan grades.

SCCC Outcome #9 will be assessed and measured by satisfactory scores on daily evaluations in the clinical setting.

XI. ADA STATEMENT:

Under the Americans with Disabilities Act, Seward County Community College will make reasonable accommodations for students with documented disabilities. If you need support or assistance because of a disability, you may be eligible for academic accommodations. Students should identify themselves to the Dean of Students at 620-417-1106 or going to the Student Success Center in the Hobbie Academic building, room 149 A.

Syllabus Reviewed: 11/4/2022