



**I. GENERAL COURSE INFORMATION**

**Subject and Number:** Respiratory Care 286  
**Descriptive Title:** Fundamentals of Pulmonary Rehabilitation and Home  
**Course Disciplines:** Respiratory Technologies  
**Division:** Health Sciences and Athletics

**Catalog Description:**

This course focuses on the treatment and management of adult patients that have chronic respiratory conditions and diseases. The course provides the student with the opportunity to develop skills managing patients requiring pulmonary rehabilitation and home respiratory care. The problem-oriented approach to developing a Respiratory Care plan will be covered emphasizing the use of, and the ability to collect, patient data. Skills to be learned will include performance of a physical exam of the patient, arterial puncture, establishment of intravenous fluid lines, exercise evaluation, patient education and prevention of infection.

**Conditions of Enrollment:**

**Enrollment Limitation:** Students must be admitted to the El Camino College Respiratory Care Program or have graduated from an accredited respiratory care program.

<b>Course Length:</b>	<b>X Full Term</b>	<b>Other (Specify number of weeks):</b>
<b>Hours Lecture:</b>	<b>2.00 hours per week</b>	<b>TBA</b>
<b>Hours Laboratory:</b>	<b>3.00 hours per week</b>	<b>X TBA</b>
<b>Course Units:</b>	<b>3.00</b>	

**Grading Method:** Letter  
**Credit Status:** Associate Degree Credit

**Transfer CSU:** Yes    **Effective Date:**

**Transfer UC:** No    **Effective Date:**

**General Education:**

**El Camino College:**

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**CSU GE:**

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**IGETC:**

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## II. OUTCOMES AND OBJECTIVES

### A. COURSE STUDENT LEARNING OUTCOMES (The course student learning outcomes are listed below, along with a representative assessment method for each. Student learning outcomes are not subject to review, revision or approval by the College Curriculum Committee)

#### **SLO #1 Appropriate and Competent FIO2 Management**

Given an in-class patient care scenario during an oral examination based on assigned reading, demonstrate appropriate and competent FIO2 management using guidelines set in clinical competencies section of the Data Arc system for clinical practice.

#### **SLO #2 Demo or Explain RC pulmonary Rehab Procedures**

During classes & labs, students will demonstrate and explain appropriate respiratory care competencies such as FIO2 monitoring and managing patients receiving prolonged artificial ventilation, pulmonary rehabilitation, life support procedures, bronchial hygiene and oxygen therapy.

#### **SLO #3 Comprehensive Final Exam on Pulmonary Rehabilitation & Home Respiratory Care**

Students who stay in the course till the end of semester will take a comprehensive final multiple choice examination and 80% will obtain a grade of 70% or better.

### B. Course Student Learning Objectives (The major learning objective for students enrolled in this course are listed below, along with a representative assessment method for each)

1. Perform pulmonary rehabilitation and home respiratory care procedures.
2. Identify subjective and objective indicators of effectiveness for each therapeutic modality provided to the chronically ill adult respiratory patient.
3. Based on the patient's response, identify and/or verbalize modifications to the respiratory care plan of the pulmonary rehabilitation and/or home care patient.
4. Given access to appropriate patient information and results of functional task evaluations, identify appropriate exercise prescriptions.
5. Identify and collect physical exam data from patients with chronic lung diseases to include percussion, inspection, palpation, auscultation and interview data.
6. Instruct patient and family about disease management and infection control in the home care setting.
7. Identify appropriate assembly, function, operation, and cleanliness of home respiratory care equipment.

### III. OUTLINE OF SUBJECT MATTER (Topics are detailed enough to enable a qualified instructor to determine the major areas that should be covered as well as ensure consistency from instructor to instructor and semester to semester.)

Lecture or Lab	Approximate Hours	Topic Number	Major Topic
Lecture	8	I	The Respiratory Care plan for pulmonary rehabilitation and home care patients. A. Oxygen orders complying to Medicare guideline B. Patient training in usage of home care oxygen equipment.
Lecture	8	II	Physical exam procedures of patients with chronic respiratory diseases such. A. Auscultation B. Chest radiograph interpretation
Lecture	8	III	Introduction to exercise physiology and chronic lung diseases.

			A. Exercise test result interpretation. B. Physiological changes during exercise sessions.
Lecture	6	IV	Pulmonary rehabilitation and home respiratory care equipment. A. Oxygen concentrators B. Liquid oxygen dispensers
Lecture	6	V	Education of the patient and family about chronic respiratory disease management and infection control. A. Optimum living space design for infection control. B. Educational strategies in the teaching of the patient and family members.
Lab	54	VI	TO BE ARRANGED HOURS  CLINICAL LAB Lab/Clinic Hours to be arranged, to perform RC skills in patient care areas. RC 286 rehabilitation maybe on Adult Floor Units or health fairs or home care settings. Students will be required to know how and to be able to perform: 1. Physical Assessment of the Chest in a patient with injury or disease. 2. Patient Respiratory Assessment to determine next course of action. There are specific competency procedures, skills and knowledge outlined in competency evaluation forms online thru DataArc, each student & instructor have access, if audited we can provide access to auditors or committee members.
Total Lecture Hours		36	
Total Laboratory Hours		54	
Total Hours		90	

#### IV. PRIMARY METHOD OF EVALUATION AND SAMPLE ASSIGNMENTS

##### A. PRIMARY METHOD OF EVALUATION:

Problem solving demonstrations (computational or non-computational)

##### B. TYPICAL ASSIGNMENT USING PRIMARY METHOD OF EVALUATION:

Given access to a patient with chronic obstructive pulmonary disease, the student will perform an interview and physical exam, correctly identifying the major signs and symptoms of the patient's condition.

##### C. COLLEGE-LEVEL CRITICAL THINKING ASSIGNMENTS:

1. Given access to data about the patient's response to oxygen therapy, identify and/or verbalize modifications to the respiratory care plan to improve the chronic obstructive pulmonary disease patient's quality of life at home.
2. After reviewing chronic obstructive pulmonary disease patient exercise evaluation data, identify appropriate exercise prescriptions designed to improve the patient's cardiorespiratory function.

##### D. OTHER TYPICAL ASSESSMENT AND EVALUATION METHODS:

Essay exams

Performance exams  
Objective Exams  
Quizzes  
Reading reports  
Written homework  
Laboratory reports  
Field work  
Class Performance  
Homework Problems  
Term or other papers  
Multiple Choice  
Completion  
Matching Items  
True/False  
Other (specify):

Case study workup on patients and reporting in writing and orally the information gathering and decision-making in managing the patient's care.

Clinical performance at the patient's bedside in our clinical affiliate hospitals, clinics, health fairs and elementary schools indicating understanding of patient's therapy and capable of recommending changes when indicated.

Multiple true/false, Patient Management Problems, and branching logic computer-assisted clinical simulations.

#### **V. INSTRUCTIONAL METHODS**

Demonstration  
Discussion  
Field trips  
Group Activities  
Guest Speakers  
Laboratory  
Lecture  
Multimedia presentations  
Role Play  
Simulation  
Other (please specify)

Clinical performance at the patient's bedside in our clinical affiliate hospitals, clinics, health fairs and elementary schools indicating understanding of patient's therapy and capable of recommending changes when indicated.

**Note: In compliance with Board Policies 1600 and 3410, Title 5 California Code of Regulations, the Rehabilitation Act of 1973, and Sections 504 and 508 of the Americans with Disabilities Act, instruction delivery shall provide access, full inclusion, and effective communication for students with disabilities.**

**VI. WORK OUTSIDE OF CLASS**

- Study
- Answer questions
- Skill practice
- Required reading
- Problem solving activities
- Written work
- Observation of or participation in an activity related to course content
- Other (specify)
- Group active learning assignments simulating equipment situations that require information collection and decision making in order to solve malfunction problem and/or determine course of action.

**Estimated Independent Study Hours per Week: 4**

**VII. TEXTS AND MATERIALS**

**A. UP-TO-DATE REPRESENTATIVE TEXTBOOKS**

Robert L. Wilkins. Fundamentals of Respiratory Care. 10th ed. Elsevier, 2013. Discipline Standard

**B. ALTERNATIVE TEXTBOOKS**

**C. REQUIRED SUPPLEMENTARY READINGS**

**D. OTHER REQUIRED MATERIALS**

**VIII. CONDITIONS OF ENROLLMENT**

**A. Requisites (Course and Non-Course Prerequisites and Corequisites)**

Requisites	Category and Justification
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**B. Requisite Skills**

Requisite Skills
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**C. Recommended Preparations (Course and Non-Course)**

Recommended Preparation	Category and Justification
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**D. Recommended Skills**

Recommended Skills
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**E. Enrollment Limitations**

Enrollment Limitations and Category	Enrollment Limitations Impact
Students must be admitted to the El Camino College Respiratory Care Program or have graduated from an accredited respiratory care program.	Students begin the clinical phase (A.S. degree requirements) of the Respiratory Care program after being accepted into the program.

**Course created by Stanley M. Baldwin on 07/01/01990**

**BOARD APPROVAL DATE:**

**LAST BOARD APPROVAL DATE: 05/18/2020**

**Last Reviewed and/or Revised by: Roy Mekar**

**Date: 02/02/2020**

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