

**SOUTHEAST COMMUNITY COLLEGE
HEALTH SCIENCES DIVISION
RESPIRATORY CARE PROGRAM
Revision Date: 11/2023**

I. CATALOG DESCRIPTION

Course Number:	RESP 1122
Course Title:	Respiratory Care Procedures
Prerequisite(s):	Admitted to program
Catalog Description:	Theory and practice of the fundamentals of medical gases, humidity, bland and therapeutic aerosol application, oxygen therapy, lung volume expansion therapy, airway clearance techniques, basic airway management and arterial blood gas punctures. Lab is concurrent with lecture. Lab complements the material presented in lecture as well as information from Patient Care Principles Class.
Credit Hours:	6
Class Hours:	60
Lab Hours:	90
Total Contact Hours:	150

II. COURSE OBJECTIVES: *Course will:*

1. Identify patient interaction and communication techniques.
2. Gather significant information from a patient's chart.
3. Recognize normal and abnormal vital signs.
4. Determine normal and abnormal physical assessment.
5. Determine proper asepsis techniques.
6. Assess record keeping formats used in healthcare.
7. Determine lung sounds.
8. Summarize the principles of gas physics.
9. Describe the production, supply, storage, use and safe handling of medical gases.
10. Discuss the use of oxygen therapy in the acute care setting.
11. Differentiate types of oxygen appliances, analyzing, and monitoring devices.
12. Discuss basic airway management.
13. Discuss the use of humidification and aerosol devices in the acute care setting
14. Analyze the physiological effects, indications, contraindications, and complications of lung volume expansion therapy to include IPPB, ezpap and incentive spirometry.
15. Analyze the physiological effects, indications, contraindications, and complications airway clearance therapy to include patient positioning, cough techniques, IPV, PD & P and flutter devices.
16. Discuss the indications, hazards and complications of arterial blood gas puncture.

III. STUDENT LEARNING OUTCOMES AND GENERAL EDUCATION LEARNING OUTCOMES:

A. STUDENT LEARNING OUTCOMES: *Student will be able to:*

1. Demonstrate proficiency in cardiopulmonary assessment.

2. Demonstrate applications of patient record keeping principles.
3. Demonstrate appropriate asepsis practices.
4. Demonstrate transporting, storage and set-up of medical gas cylinders and regulators.
5. Demonstrate knowledge and skill in selecting applying, and monitoring oxygen devices.
6. Demonstrate knowledge in the use of basic airway management.
7. Demonstrate knowledge and skill in airway aspiration.
8. Demonstrate use of humidification/bland aerosol devices according to CPG
9. Demonstrate knowledge and skills in the delivery of lung volume expansion techniques and equipment used for this therapeutic modality.
10. Demonstrate knowledge and skills in the delivery of airway clearance therapy, and equipment used for this therapeutic modality.
11. Demonstrate knowledge and skill in arterial blood gas puncture procedure.
12. Demonstrate knowledge and skills learned Patient Care Principles; handwashing, appropriate PPE, lung sounds, CXR interpretation and laboratory values interpretation.

B. GENERAL EDUCATION LEARNING OUTCOMES

GELO #3: Critical Thinking & Problem Solving

Outcomes:

- 1) Collect, identify, interpret and analyze data.
- 2) Synthesize information to arrive at reasoned solutions to problems.
- 3) Evaluate ideas presented in writing, medial, speech, or artistic presentations.
- 4) Evaluate the validity of arguments, alternatives, data, outcomes, and/or impacts of actions.
- 5) Acquire and integrate knowledge and construct relationships across disciplines.

IV. CONTENT/TOPICAL OUTLINE *(course outline may provide more detailed information)*

A. COMMON PERFORMANCE ELEMENTS

1. Handwashing
2. PPE
3. Medical record review
4. Cardiopulmonary assessment

B. GAS PRINCIPLES

C. MEDICAL GASES AND DELIVERY SAFETY

1. Production, storage and safety
2. Oxygen administration
3. Oxygen monitoring devices

C. AIRWAY MANAGEMENT

1. Adjunct airways
2. Airway care
3. Suctioning techniques
4. Manual ventilation review

D. HUMIDITY/AEROSOL THERAPY

1. Humidity devices
2. Bland Aerosol
3. APN/LVN
4. Medication delivery with nebulizer therapy

E. LUNG EXPANSION THERAPY

1. Incentive Spirometry
2. PAP therapies

3. IPPB

F. AIRWAY CLEARANCE

1. Chest Physiotherapy
2. Flutter devices
3. IPV
4. Vest therapy

G. ARTERIAL BLOOD GAS PUNCTURE

1. Indications
2. Hazards/Complications
3. Review Interpretation of ABG's

V. INSTRUCTIONAL MATERIALS

A. Required Text(s):

- Wilken, Stoller, Kacmerak, C. *Egan's Fundamentals of Respiratory Care* (current edition), Mosby Publishers.
- Butler, F.D. *Laboratory Exercises for Competency in Respiratory Care* (current edition), Davis Publishers.

B. Other:

Internet Services
Medication Reference Sheet
Watch with second hand
Calculator
Scrubs for final proficiency exam

VI. METHODS OF PRESENTATION/INSTRUCTION

A. Methods of presentation typically include a combination of the following:

1. Lecture
2. Demonstration
3. Handout Materials
4. Class Participation/Presentations
5. Case Studies and Group Work
6. Guest Presenters
7. Websites
8. Power Point slides and videos
9. Pretests and worksheets
10. Games may be used to augment some of the units.

VII. METHODS OF EVALUATION

A. Methods of evaluation include a combination of the following:

Discussions/Interactions/Assignments.....10%
Examinations50%
Quizzes.....10%
Comprehensive Final Exam.....30%

***AND PASS ON PROFICIENCY**

TOTAL 100%

For grading expectations please see the course information document.

SCC STANDARD GRADING SCALE POLICY:

A+ 95-100	C+ 75-79
A 90-94	C 70-74
B+ 85-89	D+ 65-69
B 80-84	D 60-64
	F Below 60

VIII. SPECIFIC COURSE REQUIREMENTS

- A.** Attendance is crucial to the success of this course. Any class missed could mean valuable missed information, which is difficult to obtain. Please notify the instructor of any pending absences or if you will be late. Absences in excess of four hours may result in failing the course.
- B.** Must pass all program courses with a C+ to progress to the next term.

Please see course information document for course policies related to grading, expectations, assignments, assessments, and participation.