RESP 130 - Respiratory Care Laboratory I Course Outline

Approval Date: 12/09/2009
Effective Date: 08/10/2010

SECTION A

Unique ID Number	CCC000522988
Discipline(s)	Respiratory Technologies
Division	Health Occupations
Subject Area	Respiratory Care
Subject Code	RESP
Course Number	130
Course Title	Respiratory Care Laboratory I
TOP Code/SAM Code	1210.00 - Respiratory Care Therapy/Therapist* / C - Occupational
Rationale for adding this course to the curriculum	Adding prerequisites
Units	4
Cross List	*N/A*
Typical Course Weeks	18

Total Instructional Hours

	Contact Hours
Lecture	54.00
Lab	54.00
Activity	0.00
Work Experience	0.00
Outside of Class Hours	108.00

Total Contact Hours	108
Total Student Hours	216
Open Entry/Open Exit	No
Maximum Enrollment	30
Grading Option	Letter Grade Only
Distance Education Mode of Instruction	Hybrid

SECTION B

General Education Information:

SECTION C

Course Description

Repeatability May be repeated 0 times

Catalog Description This course covers basic patient assessment, oxygen therapy, bronchial hygiene techniques, and arterial blood gas punctures. Students' knowledge and technical skills will be developed through integrated laboratory work.

Schedule Description

SECTION D

Condition on Enrollment

1a. Prerequisite(s): *None*

1b. Corequisite(s)

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1c. Recommended: *None*

1d. Limitation on Enrollment: *None*

SECTION E

Course Outline Information

1. Student Learning Outcomes:

A. Safely administer basic respiratory therapy procedures in a lab environment.
B. Demonstrate professional behavior appropriate to the lab setting.

2. Course Objectives: Upon completion of this course, the student will be able to:

A. Apply proper techniques in basic patient assessment.
B. Differentiate various breath sounds heard in lung diseases.
C. Describe the proper storage, transport, and maintenance of medical gas systems.
D. Demonstrate the proper delivery of therapeutic gases.
E. Discuss the indications and hazards associated with oxygen administration.
F. Compare and contrast humidity and aerosol therapy.
G. Apply humidity and aerosol therapy using acceptable techniques.
H. Explain the technique for incentive spirometry.
I. Explain the use of the various bronchial hygiene devices.
J. Demonstrate the proper technique for drawing arterial blood.
K. Discuss the technique for intermittent positive pressure breathing.
L. Describe the indications for basic manual and mechanical ventilation.
M.

3. Course Content

A. Basic Patient Assessment
    a. Vital signs
    b. Breath sounds
B. Gas Supply Systems
    a. Storage and transport of gas cylinders
    b. Storage and filling of liquid oxygen systems
C. Medical Gas Administration
    a. Indications and hazards of oxygen therapy
    b. Calculations for determining gas flow duration
D. Humidity and Aerosol Therapy

a. Indications and Contraindication for humidity and aerosol therapy
b. Safe administration of humidity and therapeutic aerosols

E. Incentive Spirometry
a. Indication for incentive spirometry
b. Incentive spirometry technique

F. Bronchial Hygiene Techniques
a. Indications and hazards of various bronchial hygiene techniques
b. Choosing the best technique for each patient

G. Arterial Blood Gas Puncture Technique
a. Indications and hazards of arterial punctures
b. Demonstration and practice on mannequin arms

H. Intermittent Positive Pressure Breathing
a. Equipment used
b. Technique

I. Manual and Basic Mechanical Ventilation
a. Manual ventilation equipment and technique
b. Basic mechanical ventilation parameters
c.

4. Methods of Instruction:

Activity:
Distance Education:
Lecture:
Observation and Demonstration:
Other: Lecture - Instructor relays information on a given subject. Demonstration - Instructor displays respiratory therapy equipment and techniques. Group activities - Students collaborate to solve simulated patient problems.

5. Methods of Evaluation: Describe the general types of evaluations for this course and provide at least two, specific examples.

Typical classroom assessment techniques

Exams/Tests -- Completion of computer programs, internet research assignments, and other homework assignments (10% of final grade).
Quizzes --
Lab Activities -- Completion of laboratory activities and skills check-offs.Example: Demonstrate technique for instructing patient on incentive spirometry.
Final Exam -- Final exam, to include both multiple choice and essay questions.Quizzes, midterm, and final exam constitute 90% of final grade.
Mid Term -- Midterm exam to include both multiple choice and essay questions.Example of a midterm question: Calculate how long a cylinder of oxygen will last, given the necessary information.

Letter Grade Only

6. Assignments: State the general types of assignments for this course under the following categories and provide at least two specific examples for each section.

A. Reading Assignments
Students will read assigned chapters in both required textbooks.
Examples:
1. Read chapter six in Butler's Laboratory Exercises in Respiratory Care covering basic patient assessment to include vital signs and breath sounds.
2. Read pp. 1-68 in Lab Manual and answer the self-assessment questions at the end of the chapter.

B. Writing Assignments
Students will perform skills and will answer critical thinking questions from textbooks.
Examples:
1. Demonstrate proper technique for drawing arterial blood on laboratory mannequin.
2. Apply the basic concepts of patient assessment and answer the "Thought Questions" at the end of the lab exercise.

C. Other Assignments
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7. Required Materials

A. EXAMPLES of typical college-level textbooks (for degree-applicable courses) or other print materials.

Book #1:

Author:	Cairo, J. M.
Title:	Mosby's Respiratory Care Equipment
Publisher:	Mosby Elsevier
Date of Publication:	2009
Edition:	

Book #2:

Author:	Butler, Thomas
Title:	Laboratory Exercises for Competency in Respiratory Care
Publisher:	F.A. Davis
Date of Publication:	2009
Edition:	2nd.

B. Other required materials/supplies.

- Reading assignments are also given in books required for co-requisite RESP 120. Laboratory Kit.