RESP 270 - Advanced Respiratory Care Laboratory Course Outline

Approval Date: 12/09/2011
Effective Date: 08/20/2012

SECTION A

Unique ID Number	CCC000189442
Discipline(s)	Respiratory Technologies
Division	Health Occupations
Subject Area	Respiratory Care
Subject Code	RESP
Course Number	270
Course Title	Advanced Respiratory Care Laboratory
TOP Code/SAM Code	1210.00 - Respiratory Care Therapy/Therapist* / C - Occupational
Rationale for adding this course to the curriculum	Adding prerequisites.
Units	1
Cross List	*N/A*
Typical Course Weeks	18

Total Instructional Hours

	Contact Hours
Lecture	0.00
Lab	46.00
Activity	0.00
Work Experience	0.00
Outside of Class Hours	36.00

Total Contact Hours	46
Total Student Hours	82
Open Entry/Open Exit	No
Maximum Enrollment	30
Grading Option	Letter Grade Only

Distance Education Mode of Instruction

SECTION B

General Education Information:

SECTION C

Course Description

Repeatability May be repeated 0 times

Catalog Description The integrated laboratory work will develop the student"s knowledge and technical skills in advanced mechanical ventilation techniques. The course will cover advanced application and management of state-of-the-art and high frequency ventilators. Transfers to: CSU

Schedule Description

SECTION D

Condition on Enrollment

1a. Prerequisite(s)

- RESP 211 with a minimum grade of C or better

1b. Corequisite(s): *None*

1c. Recommended: *None*

1d. Limitation on Enrollment: *None*

SECTION E

Course Outline Information

1. Student Learning Outcomes:

A. Describe mechanical ventilation strategies and advanced monitoring for critically ill patients.

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

A. Identify and demonstrate the following functions relating to Mechanical Ventilator Set-up: 1. Factors affecting gas flow 2. Sensitivity settings 3. Alarms 4. Evaluating ventilator performance 5. Initial ventilator settings 6. Problem solving and trouble shooting 7.Weaning and discontinuation

B.

3. Course Content

Advanced Ventilator Course includes: Patient simulator exercises involving airway emergencies and intubation, implementing lung protective ventilator strategies, trouble shooting the ventilator, humidifier, and ventilator circuit, optimizing ventilator settings and assessment of patient/ventilator synchrony. Lecture topics: Evidence based ventilator management and ventilator management protocols. Lab exercises: capnography, hemodynamic monitoring, waveform interpretation,

4. Methods of Instruction:

Discussion:

Lab:

Other: Lab practicum Setup an adult patient on a ventilator with ARDS.Set alarms and monitor ventilator.

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 -- 1.When initiating High Frequency Oscillatory Ventilation (HFOV) The mean airway pressure (mPaw) should be seta.The same as the mPaw on the conventional ventilator mPaw.b.5cmH2O above the plateau pressure on the conventional ventilator.c.5cmH2O above the conventional ventilator mPaw.d.28cmH2O.2 Which of the following might be used as a recruitment maneuver on the oscillator?a.40cmH20 until Pulse Ox reads 90.b.Increase the Herz.c.40cmH2O for 40 secondsd.50cmH2O for two minutes.

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
   Read - Mechanical Ventilation Physical and Clinical Application Chapter 1:
   1. Be Able to Answer the "Review Questions" or questions similar for possible quiz next week.
   2. Memorize Table 1-2
   3. Memorize Table 35-7 (Egan p843)

B. Writing Assignments
   An example of a writing asignment:
   Patient Ventilator Flow Sheet-Assignment 3
   The following needs to be completed using this format. If not followed, it will not be accepted and you will lose credit if accepted late. It has to be typed. It is passed in with the completed ventilator form. If not done correctly, it will returned and you will lose credit.
   I.Summation of the patient's medical history.
   II.The patient's chief complaint and all current diagnosis's
   III.The indication(s) for mechanical ventilation. Explain why you chose this (these) indication(s)
   IV.What tidal volume and respiratory rate should be set for this patient.
   V.Classify all ABGs within the last week. Explain the relevance of each value.
   VI.Would you make any ventilator setting changes? Why of why not.
   VII.Is there auto-PEEP. Explain
   VIII.Alarm Settings - Comment on each setting. Are they appropriate? Why or why not
   IX.Is this patient ready to be removed from the ventilator. Why or Why not?
   X.Is the PEEP level correct for this patient? Why or why not?

C. Other Assignments
   None.

7. Required Materials

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

Book #1:

Author:	Wilkins, Robert L.
Title:	Fundamentals of Respiratory Care
Publisher:	Mosby. Elsevier
Date of Publication:	2003
Edition:	9th edition

Book #2:

Author:	Pilbeam, S.P.

Title:	Mechanical Ventilation Physiological and Clinical Applications
Publisher:	Mosby. Elsevier
Date of Publication:	2006
Edition:	4th Edition

B. Other required materials/supplies.