BUTTE COLLEGE
COURSE OUTLINE

I. **CATALOG DESCRIPTION**

RT 135 - Fundamentals of Clinical Respiratory Care **3.75 Unit(s)**

Prerequisite(s): RT 120, RT 125, RT 128
Recommended Prep: NONE

Transfer Status: NT
30 hours Lecture
96 hours Lab

This course is a supervised clinical respiratory therapy experience in the hospital setting, including the application of theories and therapeutic modalities taught in previous RT classes. Mechanical Ventilation concepts will be introduced in the lecture portion. Graded only.

II. **OBJECTIVES**

Upon successful completion of this course, the student will be able to:

A. Differentiate the appropriateness of therapy in relation to diagnosis and patient condition and explain the rationale for specific therapeutic modalities administered to the patient and RCP faculty/staff.
B. Apply clinical decision making in the care of acute and chronic non-ICU and ICU patients.
C. Apply the basic concepts of mechanical ventilation to their use in the critical care setting.
D. Recognize basic cardiac arrhythmias through the interpretation of ECG monitoring.
E. Demonstrate competency levels in the following areas: Oxygen Administration, Humidity and Aerosol Therapy, Arterial Blood Gas (ABG) sampling, Arterial Line sampling, Tracheostomy Care, Inline Suctioning, Nasotracheal Suctioning (optional), Tracheal Suctioning (optional), Non-Invasive Ventilation Check, and Inline Small Volume Nebulizer or metered dose inhaler (MDI).
F. Demonstrate clinical data gathering, interpretation, and understanding of patient pathophysiology through the completion of patient assessment presentations.
G. Apply the basic assessment, patient education, and treatment skills introduced in RT 120 and RT 125 to to the care of acute and chronic non-ICU patients and ICU patients.

III. **COURSE CONTENT**

A. **Unit Titles/Suggested Time Schedule**

Lecture

Topics	Hours
1. Endotracheal intubation	5.00
2. Non-invasive positive pressure ventilation	5.00
3. Introduction to mechanical ventilation	5.00
4. Initial ventilator settings	5.00
5. Waveform analysis	5.00
6. Ventilator troubleshooting	5.00
Total Hours	30.00

Lab

Topics	Hours

1.	Oxygen Administration	8.00
2.	Humidity and Aerosol Therapy	12.00
3.	Arterial Blood Gas Sampling	6.00
4.	Non-Invasive Ventilation Check	8.00
5.	Tracheostomy Care	12.00
6.	Electrocardiogram (ECG)	8.00
7.	Introduction to Mechanical Ventilator Check	12.00
8.	Inline Small Volume Nebulizer	12.00
9.	Inline Suctioning	12.00
10.	Arterial Line Sampling	6.00
Total Hours		96.00

IV. METHODS OF INSTRUCTION

A. Lecture
B. Group Discussions
C. Collaborative Group Work
D. Homework: Students are required to complete two hours of outside-of-class homework for each hour of lecture
E. Demonstrations
F. Reading Assignments
G. Laboratory Experiments
H. Bedside administration of procedures to patients with faculty observation and assistance.
I. Demonstration of student competencies (Performance Evaluations)

V. METHODS OF EVALUATION

A. Quizzes
B. Oral Presentation
C. Class participation
D. Practical Evaluations
E. Mid-term and final examinations
F. Class Discussion
G. Hospital staff input regarding student performance

VI. EXAMPLES OF ASSIGNMENTS

A. Reading Assignments
    1. Read the assigned readings on Non-Invasive Positive Pressure Ventilation and be prepared to participate in classroom discussion of the topic.
    2. Read the assigned readings on Endotracheal Intubation and be prepared to participate in classroom discussion of the topic.
B. Writing Assignments
    1. Complete a Patient Assessment form on the patient assigned by your clinical instructor, using the patient's chart and a bedside assessment of the patient.
    2. Complete the fill-in questions in the handout on Endotracheal Intubation, ensuring an instructor has checked off all required competencies before submission.
C. Out-of-Class Assignments
    1. Complete a Data Arc Daily Log for the procedures completed in each laboratory section.
    2. Complete a Data Arc Daily Log for each clinical rotation, including the day's most significant experience, physician interactions, and an accounting of the procedures

performed.

VII. **RECOMMENDED MATERIALS OF INSTRUCTION**

Textbooks:

A. Cairo, J.M., Pilbeam, S.. Mosby's Respiratory Care Equipment. 9th Edition. Mosby, 2013.
B. Wilkins, R.. Egan's Fundamentals of Respiratory Care. 10th Edition. Mosby, 2013.
C. Wilkins. Clinical Assessment in Respiratory Care. 7th Edition. Mosby, 2013.
D. Pilbeam, S.. Mechanical Ventilation: Physiologic and Clinical Applications. 5th Edition. Mosby, 2012.
E. Corning, H., et al.. Mosby's Respiratory Care PDQ. 2nd Edition. Mosby, 2010.

Materials Other Than Textbooks:

A. American Association for Respiratory Care, Clinical Practice Guidelines, at www.aarc.org
B. Required Equipment:
    1. Name Badge
    2. Stethoscope
    3. Watch with seconds display
    4. Approved scrub outfit
    5. Working pen and pencil
    6. Approved eye protection
    7. Bandage scissors
    8. Small spiral-bound pocket notebook

Created/Revised by: Donna Davis
Date: 09/29/2014