

BUTTE COLLEGE

COURSE OUTLINE

I. CATALOG DESCRIPTION

RT 145 - Advanced Respiratory Care Procedures

5 Unit(s)

Prerequisite(s): RT 135

Co-requisite(s): RT 140, RT 142

Recommended Prep: NONE

Transfer Status: NT

272 hours Lab

This course is designed to support continued in-hospital development of clinical respiratory care skills with emphasis on the application of scientific principles to the therapeutic environment and life support of the critically ill patient. Graded only.

II. OBJECTIVES

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

- A. Schedule respiratory care to be delivered to critically ill patients, based on the acuity of need.
- B. Apply previously learned concepts of respiratory care modalities, patient education, and medications to patients who are critically ill.
- C. Perform cardiopulmonary assessment of critically ill patients.
- D. Demonstrate a fundamental knowledge of the operation of mechanical ventilators.
- E. Demonstrate competency in Securing an Artificial Airway, Cuff Pressure Management, Ventilator Set-up (optional), Waveform Graphics Analysis, Ventilator Parameter Change, Weaning Parameters (optional), Intubation, Extubation, Weaning, Ventilator Check, Transport with Oxygen, End-Tidal CO₂ Monitoring (optional), and Manual Ventilation during Transport or Transport Ventilator Set-up.

III. COURSE CONTENT

A. Unit Titles/Suggested Time Schedule

Lab	
<u>Topics</u>	<u>Hours</u>
1. Invasive cardiopulmonary monitoring	26.00
2. Operation and troubleshooting of mechanical ventilators	72.00
3. Cardiopulmonary assessment of the critically ill patients	30.00
4. Maintenance of artificial airways	20.00
5. Emergency procedures within the critical care environment	22.00
6. Modification of mechanical ventilator settings based on patient response	32.00
7. Initiating mechanical ventilation	20.00
8. Weaning from mechanical ventilation	25.00
9. Transport of the mechanically ventilated patient	25.00
Total Hours	272.00

IV. METHODS OF INSTRUCTION

- A. Instructor Demonstrations
- B. Collaborative Group Work
- C. Homework: Students are required to complete two hours of outside-of-class homework for each hour of lecture
- D. Problem-Solving Sessions
- E. Reading Assignments

V. METHODS OF EVALUATION

- A. Quizzes
- B. Research Projects
- C. Oral Presentation
- D. Demonstration
- E. Homework
- F. Class participation
- G. Written Assignments
- H. Performance Examinations
- I. Practical Evaluations

VI. EXAMPLES OF ASSIGNMENTS

- A. Reading Assignments
 - 1. Thoroughly review all sections of the patient's chart in preparation for presenting the patient during ICU grand rounds.
 - 2. Read the information provided on your Data Arc disc regarding the competency, Monitoring Mechanical Ventilation, and come to next clinic section prepared to be checked off on this competency.
- B. Writing Assignments
 - 1. Complete an Adult Daily Log in Data Arc indicating the amount and type of procedures performed during each clinical shift, physician interactions, and providing a narrative on the day's most significant experiences.
 - 2. Fill out a Critical Care Adult Assessment form, using the patient's chart, a bedside patient assessment, and information obtained from the patient's nurse to complete.
- C. Out-of-Class Assignments
 - 1. Not applicable.

VII. RECOMMENDED MATERIALS OF INSTRUCTION

Textbooks:

- A. Cairo JM, Pilbeam SP. Mosby's Respiratory Care Equipment. 9th Edition. Mosby, 2013.
- B. Pilbeam, SP, Cairo JM.. Mechanical Ventilation: Physiologic and Clinical Applications. 5th Edition. Mosby, 2012.
- C. Wilkins RL, Sheldon RL, Krider SJ. Clinical Assessment in Respiratory Care. 7th Edition. Mosby, 2013.
- D. Wilkins RL, Stoller JK, Scanlan CL. Egan's Fundamentals of Respiratory Care. 10th Edition. Mosby, 2012.
- E. Corning, H., et al.. Mosby's Respiratory Care PDQ. 2nd Edition. Mosby, 2010.

Materials Other Than Textbooks:

- A. AARC Clinical Practice Guidelines
- 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

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