



Course Outline

2026-2027 Catalog

RT 135 - Fundamentals of Clinical Respiratory Care

Catalog Description

Transfer Status: NT

Prerequisite: RT 120, RT 125

Unit(s): 3.50

Lecture: 25.50 Contact hours/51.00 Out of class hours/76.50 Total hours/1.50 Unit(s)

Lab: 102.00 Contact hours/0.00 Out of class hours/102.00 Total hours/2.00 Unit(s)

Total: 127.50 Contact hours/51.00 Out of class hours/178.50 Total hours/3.50 Unit(s)

Course Description: 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.

Objectives

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

1. 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.
2. Apply clinical decision making in the care of acute and chronic non-ICU and ICU patients.
3. Apply the basic concepts of mechanical ventilation to their use in the critical care setting.
4. Recognize basic cardiac arrhythmias through the interpretation of ECG monitoring.
5. Demonstrate competency levels in the following areas: Oxygen Administration - HFNC 10-60 LPM, Arterial Blood Gas (ABG) sampling, Arterial Line sampling, Tracheostomy Care, Inline Suctioning, Non-Invasive Ventilation Set Up and Inline Small Volume Nebulizer or Metered Dose Inhaler (MDI); and, when available, Nasotracheal Suctioning, Tracheal Suctioning, Non-Invasive Ventilation Check.
6. Demonstrate clinical data gathering, interpretation, and understanding of patient pathophysiology through the completion of patient assessment presentations.
7. Apply the basic assessment, patient education, and treatment skills introduced in RT 120 and RT 125 to the care of acute and chronic non-ICU patients and ICU patients.

Course Content

Topic Titles / Suggested Time Topic

Lecture

<u>Topics</u>	<u>Lec Hrs</u>
Endotracheal intubation	4.50
Non-invasive positive pressure ventilation	4.50
Introduction to mechanical ventilation	4.50
Initial ventilator settings	4.00
Waveform analysis	4.00
Ventilator troubleshooting	4.00

Total Hours: 25.50

Lab

<u>Topics</u>	<u>Lab Hrs</u>
Oxygen Administration	8.00
Humidity and Aerosol Therapy	13.00
Arterial Blood Gas Sampling	7.00
Non-Invasive Ventilation Check	8.00
Tracheostomy Care	13.00
Electrocardiogram (ECG)	8.00
Introduction to Mechanical Ventilator Check	13.00
Inline Small Volume Nebulizer	13.00
Inline Suctioning	13.00
Arterial Line Sampling	6.00

Total Hours: 102.00

Methods of Instruction

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

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

Examples of Assignments

Reading Assignments

1. Read the assigned readings on Endotracheal Intubation and be prepared to participate in classroom discussion of the topic.
2. Read the assigned readings on Non-Invasive Positive Pressure Ventilation and be prepared to participate in classroom discussion of the topic.

Writing Assignments

1. Complete the fill-in questions in the handout on Endotracheal Intubation, ensuring an instructor has checked off all required competencies before submission.
2. 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.

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.

Recommended Materials of Instruction

Cairo, J.M. (2018). Mosby's Respiratory Care Equipment. *Mosby, 10th*.

Wilkins, R. (2020). Egan's Fundamentals of Respiratory Care. *Mosby, 12th*.

Wilkins. (2017). Clinical Assessment in Respiratory Care. *Mosby, 8th*.

Pilbeam, S. (2019). Mechanical Ventilation: Physiologic and Clinical Applications. *Mosby, 7th*.

Corning, H., et al. (2013). Mosby's Respiratory Care PDQ. *Mosby, 2nd*.

Other Learning Materials

American Association for Respiratory Care, Clinical Practice Guidelines, at www.aarc.org

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

Minimum Qualifications

Respiratory Technician
Respiratory Technologies

