NOVA COLLEGE-WIDE COURSE CONTENT SUMMARY
RTH 236 – CRITICAL CARE MONITORING (3CR.)

Course Description

Focuses on techniques and theory necessary for the evaluation and treatment of the critical care patient, especially arterial blood gas and hemodynamic data. Explores physiologic effects of advanced mechanical ventilation. Lecture 2 hours per week. Laboratory 3 hours per week. Total 5 hours per week.

General Course Purpose

The primary focus of the course is to prepare the student to use advanced monitoring and mechanical ventilation techniques and to evaluate and integrate the data into the patient care plan.

Course Prerequisites/Corequisites

Prerequisites: Completion of all RTH coursework in the first three semesters or permission of the assistant dean

Course Objectives

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

- Interpret common flow, volume, and pressure waveforms seen during mechanical ventilation
- Describe the assessment of oxygenation, ventilation and pulmonary mechanics and the application of the values obtained in bedside decision-making
- Explain the principles of and demonstrate the proper use of the equipment employed for non-invasive positive pressure ventilation (NIPPV)
- Describe and implement advanced techniques of mechanical ventilation
- Apply and interpret Capnography values and graphics

Major Topics to Be Included

- Clinical application of ventilation graphics
- Basic and advanced pulmonary mechanics during mechanical ventilation
- Advanced ventilatory techniques including volume-assured pressure support, proportional assist ventilation, airway pressure release ventilation, tracheal gas insufflation, independent lung ventilation and NIPPV
- Capnography application and graphics