

**Northwest Arkansas Community College
Health Professions Division
Respiratory Therapy Program Course Outline**

Course Number and Title

RESP 2533 Critical Care

Catalog Description

This course is designed to advance the respiratory student in monitoring and management of critical care patients, including advanced treatment modalities and disease management for the Adult, Neonatal, and Pediatric patient populations. Focuses on special techniques, case studies and pathological complications associated with the critically ill patient. PALS certification is in this course.

Prerequisites

- RESP 2102 Concepts in Respiratory Care
- RESP 2103 Cardiopulmonary Anatomy and Physiology
- RESP 2104 Respiratory Care Sciences
- RESP 2204 Cardiopulmonary Assessments and Diagnostics
- RESP 2123 Pulmonary Diseases
- RESP 2214 Equipment and Procedures
- RESP 2222 Pharmacology for Respiratory Care
- RESP 2501 Dysrhythmia for Respiratory Therapists
- RESP 2306 Clinical Practicum I
- RESP 2423 Clinical Practicum II
- RESP 2414 Mechanical Ventilation I
- RESP 2433 Pediatrics and Perinatology
- PSYC 2003 General Psychology

Credit Hours/Contact Hours/Load Hours

3 credit hours
48 contact hours
3 load hours

Target Audience and Transfer

Students admitted into the Respiratory Therapy Program.
May transfer to other respiratory therapy programs.

Student Learning Outcomes

- Perform a physical assessment of a critically ill patient
- Recognize the normal oxygenation indices and their normal values
- Determine underlying causes and recommend a treatment of choice for an oxygenation problem
- Calculate key oxygenation problems and determine if they are normal or abnormal
- Examine the procedures required to act as an assistant to the physician performing a bronchoscopy, thoracentesis, chest tube insertion, tracheotomy (percutaneous trach), and cardioversion
- Troubleshoot airway emergencies and respond appropriately
- Evaluate hemodynamic values to differentiate between probable causes
- Differentiate between cardiogenic vs. non-cardiogenic pulmonary edema
- Examine disease management for the following: neurological diseases, smoke inhalation, near drowning, penetrating chest wounds and traumatic brain injury
- Examine special mechanical ventilation modes of the neonate (HFV and HFO) and ECMO

Topics

- Neonatal Critical Care Utilizing CPAP and IMV
- Physical Assessment of the ICU Patient, Assessment of Oxygenation & O₂ Transport
- Cardiac Output Assessment and Hemodynamics
- Special Procedures
- Disease Management/Part 1 Neurological Disorders, Smoke Inhalation and Near Drowning
- Disease Management/Part 2 Penetrating Chest Wounds, Chest Tube Insertion and Management, TBI and Pleural Effusion
- American Heart Association Pediatric Advanced Life Support

Format

Hybrid, Required personal computer with web camera, microphone, internet access, and Microsoft Office applications.

Forms of Assessment

- Written examinations
- Homework
- Participation
- Discussions
- Research
- Must obtain a cumulative score of 75.5% to pass the course