

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

Course Number and Title

RESP 2433 Pediatrics and Perinatology

Catalog Description

A laboratory course designed to provide the student with practical experience in with the pulmonary care of the newborn, infant and pediatric patients. Various defects and disease states common to these age groups are studied, as well as treatments, and complications of therapy and life support.

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
5 load hours

Target Audience and Transfer

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

Student Learning Outcomes

- Examine the stages of fetal lung development

- Relate surfactant levels to fetal lung maturity
- Examine the effect of the birth process on removal of fetal lung fluid and associated complications
- Outline the stages of heart development and the fetal shunts
- Examine the changes associated with extruterine life as it relates to vascular pressures in the placenta, umbilical vein, fetal shunts, right-side heart chambers, left-side heart chambers, pulmonary artery, lungs, aorta, and umbilical arteries
- Evaluate maternal medical history for associated pregnancy and newborn risk factors
- Recommend pulmonary interventions based on clinical findings during the birth process.
- Perform comprehensive neonatal and pediatric pulmonary and physical assessments
- Formulate treatment plans for neonatal and pediatric patients
- Interpret radiographic findings of the neonatal and pediatric patient
- Determine underlying pulmonary complications based on blood gas finding
- Perform arterial and capillary blood samples
- Perform noninvasive monitoring of neonatal and pediatric patients
- Recommend therapeutic modalities for neonatal and pediatric patients
- Perform mechanical ventilation for neonatal and pediatric patients

Topics

- Fetal Development, Assessment and Delivery
- Assessment and Monitoring of the Neonatal and Pediatric Patient
- Neonatal Pulmonary Disorders
- Surgical Disorders Affecting Respiratory Care and Congenital Heart Defects
- Pediatric Airway Diseases, Asthma & Cystic Fibrosis
- Surfactant Replacement, CPAP and Invasive Mechanical Ventilation of the Neonate and Pediatric Patient

Format

Hybrid and laboratory, required personal computer with web camera, Microsoft Word and PowerPoint.

Forms of Assessment

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