

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

**Course Number and Title**

RESP 2222 Pharmacology for Respiratory Care

**Catalog Description**

This lecture course is designed to provide the student with an understanding of the pharmacological processes of the body and medications utilized in the treatment of cardiopulmonary disease. Emphasis will be placed on performing drug calculations, CNS system, bronchodilators, mucus controlling drug therapy, anti-inflammatory agents, antimicrobial/anti-infective agents, CNS manipulative agents, and other agents of cardiopulmonary value.

**Prerequisites**

- RESP 2102 Concepts in Respiratory Care
- RESP 2103 Cardiopulmonary Anatomy and Physiology
- RESP 2104 Respiratory Care Sciences
- RESP 2204 Cardiopulmonary Assessments and Diagnostics

**Credit Hours/Contact Hours/Load Hours**

2 credit hours  
32 contact hours  
2 load hours

**Target Audience and Transfer**

Second semester students admitted into the Respiratory Therapy Program.  
May transfer to other respiratory therapy programs.

**Student Learning Outcomes**

- Incorporate the basic concepts and principles in pharmacology to the practice of Respiratory Care.
- Interpret drug information
- Relate the sympathetic and parasympathetic nervous system processes to the effects and function of pharmacologic therapies.
- Recognize physiologic consequences of pharmacologic therapy, including drug elimination, alteration, and effectiveness.

- Evaluate the drugs used in respiratory care by their mechanism of action, indications, contraindications, potential hazards, and conventional dosages and routes.
- Evaluate the drugs used in critical and cardiovascular care by their mechanism of action, indications, contraindications, potential hazards, and conventional dosages and routes.
- Propose appropriate pharmacologic therapy based on patient evaluation, disease conditions, and expected outcomes.
- Revise pharmacologic therapies accordingly.

### **Topics**

- Introduction to Respiratory Care Pharmacology
- The Central and Peripheral Nervous Systems
- Bronchodilators
- Mucus-Controlling Drug Therapy
- Anti-inflammatory agents
- Antimicrobial & Anti-infective Agents, Vaccines
- Sedatives, hypnotics, analgesics, neuromuscular blockade
- Pulmonary Vasodilators, Cardiovascular, diuretic agents

### **Format**

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

### **Forms of Assessment**

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