## RESPIRATORY CARE - RES

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### ALH 501 Health Promotion and Disease Prevention
This course will provide students with information that will enable them to develop a practical approach to health promotion and disease prevention for a specific target population. Specifically, the course is designed to help in the development of programs within schools, communities, and the workplace.

**Offered:** Every fall.

### ALH 503 Medical Nutrition Therapy
This course will explore the application of nutrition principles to the treatment and prevention of diseases. This treatment can range from changes in diet to providing specialized therapies such as intravenous or tube feeding. Topics discussed will include lifestyle strategies and therapeutic nutrient intervention to correct nutritional insufficiencies, promote optimal health, and prevent, manage, or correct medical problems.

**Offered:** Every fall.

### ALH 602 Cardiopulmonary Pathophysiology
Details the functions of the cardiovascular and respiratory systems emphasizing normal function, pathophysiology, initiation and progression of disease and current treatment. Special reference will be made to the role of exercise as a therapeutic modality.

**Prerequisite:** An introductory course in anatomy and physiology.

**Offered:** Every fall, online only.

### ALH 621 Cardiopulmonary Pharmacodynamics
This course provides study of the current medications used in the treatment of congestive heart failure, coronary artery disease, arrhythmias, angina and hypertension, asthma and COPD. The effects of these medications during acute and chronic exercise and cardiac emergency medications will also be covered.

**Prerequisite:** ALH 602.

**Offered:** Every fall, online only.

### ALH 631 Research Methods in Allied Health
An intermediate graduate-level course designed to familiarize students with the elements of research methods with special emphasis on experimental and quasi-experimental research techniques most commonly used in the allied health professions. The course also examines issues that deal with ethical aspects of human experimentation. Special emphasis will be placed on preparing the student to be able to critically analyze and interpret research literature. By the end of the course, the student is expected to complete the majority of a viable research proposal. By the end of the course, students will be able to properly read and critique scientific literature.

**Offered:** Every summer.

### ALH 689 Master's Project
The master’s project is designed as a rigorous scholarly activity that provides an opportunity to integrate theoretical knowledge with research.

**Prerequisite:** Permission of program director.

**Offered:** Fall, spring & summer.

### ALH 699 Masters Project II
Continues ALH 689 with an approved thesis proposal by collecting and analyzing data, and culminates in an approved written thesis.

**Prerequisite:** ALH 689 & permission of program director.

**Offered:** Fall, spring & summer.

### RES 512 Pulmonary Function Testing
A study of pulmonary diagnostic techniques, with an emphasis on pulmonary function testing and interpretation.

**Offered:** Every spring, online only.

### RES 522 Adult Learning Theory
The concept of lifelong learning has become an increasing reality as adults continually engage in learning activities, whether through their employer, institutions of higher education, or self-directed study. This course will examine the social and psychological aspects of adult development and learning, including the various motivations of adult learners. Students will also learn various methods of training and development, as well as specific instructional practices.

**Offered:** Every fall, online only.

### RES 612 Advanced Cardiopulmonary Monitoring
This course is an overview of invasive and noninvasive cardiopulmonary monitoring, emphasizing theory of operation and techniques. Topics include physiologic principles of hemodynamic monitoring, pulmonary artery catheter use, respiratory gas monitoring, noninvasive and minimally invasive hemodynamic monitoring, clinical applications of hemodynamic and respiratory gas monitoring, work of breathing determinations, and respiratory muscle strength.

**Prerequisites:** ALH 602 and ALH 621.

**Offered:** Every fall, online only.

### RES 615 Advanced Topics in Ventilatory Support
Advanced study in methods of mechanical ventilatory support. Patient assessment by advanced monitoring is stressed, with attention to patient ventilator interactions, optimization of ventilatory support, and weaning of marginal patients. New ventilation technology and modes of support are discussed.

**Prerequisite:** ALH 602 and 621.

**Offered:** Every spring, online only.

### RES 618 Pulmonary and Cardiac Rehabilitation
This course explores pulmonary/cardiac rehabilitation clinics and combines exercise training with behavioral and educational programs designed to help patients with COPD and cardiac issues control symptoms and improve day-to-day activities. We will look at the team approach—patients work closely with their doctors; nurses; respiratory, physical, and occupational therapists; psychologists, exercise specialists; and dietitians. We will also explore the differences between cardiac and pulmonary rehabilitation.

**Offered:** Every spring, online only.