

Respiratory Therapy (RESP)

RESP 1540

Survey of Respiratory Therapy

1:1:0 Spring

Introduces students to the profession of respiratory therapy. Includes field trips and limited lab activities. Open to all students.

RESP 2145

Introduction to Basic Therapeutic Modalities Lab

3:0:6 Spring

* Prerequisite(s): Acceptance into the Respiratory Therapy Program

Provides laboratory experiences to develop basic patient interaction and assessment skills required of an entry-level respiratory therapist.

RESP 2165

Equipment Management Lab

3:0:6 Summer

* Prerequisite(s) or Corequisite(s): RESP 2145

Provides laboratory experience with mechanical ventilation techniques and equipment. Emphasizes patient observation and assessment skills, as well as techniques in initiating, troubleshooting, monitoring, managing, and weaning ventilator parameters.

RESP 2210

Elementary Cardiopulmonary Anatomy and Physiology

3:3:0 Spring

* Prerequisite(s): Acceptance into the Respiratory Care Degree Program and RESP 1540

Investigates anatomy and physiology of the pulmonary, cardiovascular, and renal systems focused for the entry-level respiratory care practitioner. Includes principles of fluid dynamics governing oxygen and carbon dioxide transport throughout the body.

RESP 2230

Cardiopulmonary Pathophysiology

2:2:0 Summer

* Prerequisite(s): RESP 2210

Introduces medical and surgical diseases of the pulmonary and cardiovascular systems for the entry-level respiratory therapist, with emphasis given to etiology, clinical presentation, diagnosis, treatment, and prognosis.

RESP 2250

Basic Patient Assessment

2:2:0 Spring

* Prerequisite(s): Acceptance into Respiratory Therapy Program.

Introduces basic patient assessment techniques, including respiratory therapy application of obtaining patient history and physical examination. Emphasizes integration of laboratory and imaging studies.

RESP 2270

Application of Cardiopulmonary Diagnostics

3:3:0 Spring

* Prerequisite(s): RESP 2210

Introduces theory and clinical application of basic cardiopulmonary diagnostic studies, including simple spirometry, arterial and mixed venous blood gases, and electrocardiograms. Emphasizes critical thinking skills in interpretation of diagnostic findings.

RESP 2300

Basic Modalities in Respiratory Care

3:3:0 Spring

* Prerequisite(s): Acceptance into the Respiratory Therapy Program.

* Prerequisite(s) or Corequisite(s): RESP 2145

Examines principles and theory of clinical application of basic respiratory treatments and therapies, including indications, contraindications, hazards and complications, and equipment management. Examines principles and theory of clinical application of airway management and artificial ventilation. Includes theory of invasive and non-invasive ventilation. Emphasizes patient assessment and critical thinking skills.

RESP 2320

Essentials of Mechanical Ventilation

3:3:0 Spring

* Corequisite(s): RESP 2165

Introduces basic principles of mechanical ventilation, including determining the need for ventilation support, as well as initiation, maintaining, monitoring, and weaning from mechanical ventilation.

RESP 2330

Entry Level Respiratory Therapy Review

1:1:0 Spring

* Prerequisite(s): RESP 2210, RESP 2300, RESP 2250

* Prerequisite(s) or Corequisite(s): RESP 2320, RESP 2270

Provides a comprehensive review to integrate concepts and skills in Respiratory Therapy.

RESP 2520

Principles of Pharmacology

2:2:0 Spring

* Prerequisite(s): RESP 2210

Introduces pharmacology, including general principles, autonomic and central nervous system agents, cardiovascular agents, and immunotherapeutic agents. Includes the study of drugs used in managing renal, GI tract, endocrine, and infectious or neoplastic diseases and disorders.

RESP 2705

Clinical Applications I

3:0:6 Spring

* Prerequisite(s): Acceptance into the Respiratory Therapy Program

* Prerequisite(s) or Corequisite(s): RESP 2300, RESP 2145

Provides clinical rotations in various hospital and other health care settings allowing for mentored practice of skills. Emphasizes application of assessment skills including medical chart reviews and patient observation and examination. Emphasizes recommending and modifying basic therapies utilizing patient assessment skills and review of patient medical history.

RESP 2715

Specialty Clinical Experiences

1:0:2 Summer

* Prerequisite(s): RESP 2705

Provides opportunity to observe and participate in specialty areas of the respiratory care profession, including pulmonary function testing, cardiac testing, ECGs, ABGs, and long-term artificial airway maintenance. Requires 30 hours in clinical rotations with a registered respiratory therapist as a mentor in various hospital and other health care settings.

RESP 2725

Clinical Applications II

3:0:6 Fall

* Prerequisite(s): RESP 2705

Provides clinical rotations in selected medical settings, focusing on skills of initiation, management, and weaning of mechanical ventilation. Includes case studies as well as patient care. Requires 90 clinical hours with a registered respiratory therapist mentor.

RESP 3210

Adv Cardiopulmonary Anatomy and Physiology

2:2:0 Spring

* Prerequisite(s): RESP 2210, RESP 2230, and University Advanced Standing

Addresses cardiopulmonary anatomy and physiology specifically for the advanced-level respiratory care practitioner focusing on the advanced physiologic considerations of the cardiovascular, pulmonary, and renal systems.

RESP 3220

Advanced Cardiopulmonary Pathophysiology

2:2:0 Spring

* Prerequisite(s): RESP 2230, RESP 3210, and University Advanced Standing

Examines pathophysiology and diagnosis of coronary artery disease, fungal lung diseases, neoplasms, HIV, adult respiratory distress syndrome (ARDS), chest trauma, shock, multiple organ dysfunction syndrome (MODS), and differentiation of extracellular and intracellular fluid compartments.

Respiratory Therapy

RESP 3230

Advanced Cardiopulmonary Technology
2:2:0 **Spring**
* Prerequisite(s): RESP 2270 and University
Advanced Standing

Explores advanced diagnostic procedures and develops interpretive skill in cardiopulmonary function, lung dynamics, specialty gases, blood gas analysis, and metabolic assessment.

RESP 3260

Neonatal/Pediatric Respiratory Care
3:3:0 **Spring**
* Prerequisite(s): RESP 2320 and University
Advanced Standing
* Corequisite(s): RESP 3765

Examines pediatric and neonatal respiratory care with emphasis on intensive care activities, therapeutic procedures, life support modalities, and fetal, neonatal, and pediatric pathophysiology.

RESP 3270

Adult Critical Care
2:2:0 **Spring**
* Prerequisite(s): RESP 2320 and University
Advanced Standing
* Corequisite(s): RESP 3775

Explores advanced level adult respiratory care in the intensive care setting. Emphasizes ventilation/perfusion monitoring, hemodynamic monitoring airway, assessment and critical patient management.

RESP 3280

Patient Care Continuum/Quality Management
2:2:0 **Spring**
* Prerequisite(s): RESP 2300 and University
Advanced Standing

Analyzes theory and principles of continuum of care and quality management in pulmonary rehabilitation, polysomnography, home and self care. Includes legal, ethical, and moral considerations of chronic and extended care.

RESP 3510

Anatomy and Physiology of Sleep
3:3:0 **Spring**
* Prerequisite(s): University Advanced Standing and Department approval. Requires (acceptance into the Respiratory Care Program or completion of a respiratory care program) or R.N. credential.

Introduces anatomy and physiology of the neurological, cardiac, and respiratory systems during the wake and sleep cycles. Emphasizes changes related to sleep disorders.

RESP 3520

Introduction to Sleep Disorders
3:3:0 **Spring**
* Prerequisite(s): RESP 3510 and University
Advanced Standing

Provides an overview of the history of sleep medicine, normal sleep physiology, the effects of sleep-wake disruption, sleep disorders, and abnormal sleep physiology. Includes an introduction to polysomnography and the fundamentals of therapeutic interventions utilized to treat sleep disorders.

RESP 3530

Instrumentation and Computers in Polysomnography
3:1:4 **Spring**
* Prerequisite(s): RESP 3510 and University
Advanced Standing

Studies and applies equipment, instrumentation, and recording devices utilized in polysomnography, such as EEG, ECG and a range of breathing monitoring systems and devices, including data acquisition and trouble shooting.

RESP 3550

Therapeutics of Managing Sleep Apnea
2:1:3 **Spring**
* Prerequisite(s): RESP 3520 and University
Advanced Standing

Covers current therapies and interventions for treatment of sleep apneas. Includes interventions such as positive airway pressure therapy (nocturnal CPAP and bi-level CPAP), surgery, and dental devices.

RESP 3765

Clinical Applications of Neonatal/Pediatric Respiratory Care
3:0:12 **Spring**
* Prerequisite(s): RESP 2320 and University
Advanced Standing
* Corequisite(s): RESP 3260

Provides mentored participation in the clinical care of patients in the neonatal/pediatric critical care setting. Emphasizes cardiovascular and patient/ventilator monitoring and assessment and airway management. Requires 180 hours of mentored participation in neonatal and pediatric intensive care.

RESP 3775

Clinical Applications of Adult Critical Care
4:0:12 **Spring**
* Prerequisite(s): RESP 2725 and University
Advanced Standing
* Corequisite(s): RESP 3270

Provides mentored participation in the clinical care of patients in the adult critical respiratory care setting, with emphasis on hemodynamic monitoring and assessment, ventilation/perfusion monitoring, patient/ventilator monitoring and assessment, and airway management. Requires 120 documented clinical hours.

RESP 3785

Clinical Applications III /Continuum of Care
2:0:4 **Spring**
* Prerequisite(s): RESP 2310 and University
Advanced Standing
* Prerequisite(s) or Corequisite(s): RESP 3280

Provides clinical experiences related to RESP 3280, such as rehabilitation, extended care, home care, polysomnography, patient assessment for discharge planning and quality management. Requires 60 documented clinical hours.

RESP 3800

Clinical Simulation Seminar
3:3:0 **Spring**
* Prerequisite(s): RESP 3260, RESP 3270, RESP 3280, and University Advanced Standing

Explores problem-based clinical concepts. Includes a comprehensive program review and preparatory focus on the written and clinical simulation examinations of the NBRC.

RESP 4615

Advanced Patient Assessment
3:0:9 **Summer**
* Prerequisite(s): University Advanced Standing and Department approval

Emphasizes an understanding of diagnostic processes involved in assessing, evaluating, and treating patients with cardiopulmonary disease, with an intensive, mentored clinical experience.

RESP 4630

Continuous Quality Improvement
2:1:3 **Spring**
* Prerequisite(s): University Advanced Standing

Enhances understanding of how to construct and conduct quality improvement projects in the clinical workplace.

RESP 480R

Health Education and Promotion
1 to 4:1 to 4:0 **Fall, Spring, Summer**
* Prerequisite(s): University Advanced Standing and departmental approval.

Provides students an opportunity to pursue independent study in respiratory therapy with a faculty mentor. The health promotion project addresses the growing role of the Respiratory Care Practitioner (RCP) in patient education, public education, and health promotion in general. Requires preparation and presentation of oral and/or written reports. May be repeated for up to 4 credits toward graduation.

RESP 489R

Student Research in Respiratory Therapy
1 to 4:0:3 to 12 **Spring**

* Prerequisite(s): University Advanced Standing and Department approval. Must have completed Respiratory Therapy AAS degree requirements.

Provides guided research studies in biology under the direction of a Respiratory Therapy faculty or physician mentor. Includes any combination of literature reviews, original research, and/or participation in ongoing departmental projects. Involves students in the methodology of original medical or biological research. Requires preparation and presentation of oral and/or written reports. May be repeated for up to 4 credits toward graduation.

RESP 494R

Student Seminar in Respiratory Therapy
1:1:0 **Spring**

* Prerequisite(s): University Advanced Standing and Acceptance in the Respiratory Therapy program.

Requires students to research scientific literature, give oral presentations, and lead discussions on assigned human respiratory related topics in specific areas of current medical research. May be repeated for up to two credits toward graduation.