

# RESPIRATORY CARE (RESP)

## **RESP 1160 Respiratory Patient Care and Assessment – 2 credits**

The course emphasizes respiratory care specific assessment and patient care skills, such as auscultation, basic pulmonary function testing and arterial blood gas interpretation. This course includes onsite orientation to the healthcare system and patient care unit. There are opportunities for supervised clinical practice of the skills and techniques learned in INDI 1150, RESP 2100 and RESP 2200. Offered in the College for Women.  
**Prerequisites:** RESP 2100, INDI 1150 (C or Better grades) and current certification in AHA CPR for HCPs.

**Corequisite:** RESP 2200.

## **RESP 2100 Introduction to Respiratory Care with Lab – 4 credits**

This course introduces students to the historical development of the profession of respiratory care. Teaching-learning principles and considerations related to patient/therapist safety issues are addressed. Theory and skills relating to oxygen, aerosol, humidity and lung recruitment therapy are practiced in conjunction with beginning clinical decision-making. Offered in the College for Women.

**Prerequisite:** Admission to the major.

## **RESP 2200 Principles of Patient Management with Lab – 4 credits**

This course focuses on the development of knowledge and skills in basic respiratory care. Principles and practice related to airway care, chest physiotherapy mechanical aids to lung expansion and non-invasive positive pressure ventilation are addressed. Offered in the College for Women.

**Prerequisite:** RESP 2100.

**Corequisite:** RESP 1160.

## **RESP 3100 Principles of Ventilation with Lab – 4 credits**

The focus of this course is mechanical ventilation theory and techniques using various adult ventilators. Blood gas interpretation and its relationship to respiratory care are addressed using lecture/discussion and computer-assisted instruction modules. Intervention strategies used in the management of critically ill patients on life-support are presented, as are advanced skills in pulmonary function diagnostic testing. Critical analysis and problem-solving skills are practiced using patient management situations and case scenarios. Ethical issues related to the management and respiratory care of critically ill patients are discussed. Offered in the College for Women.

**Prerequisites:** RESP 2200, BIOL 2200, BIOL 2610, BIOL 2620 with a minimum grade of C.

**Co-requisites:** RESP 3110, RESP 3120.

## **RESP 3110 Clinical Applications I – 2 credits**

This clinical experience focuses on clinical applications of gas therapy, chest physiotherapy and hyperinflation techniques with a diverse patient population. Students utilize cognitive, interactive and psychomotor skills in the assessment process. Students travel to clinical experiences one day per week in hospitals and clinics around the Twin Cities. Interpersonal communication skills and cultural sensitivity between student, patient, family and other healthcare team members are emphasized and practiced. Offered in the College for Women.

**Prerequisites:** RESP 2200, current AHA BLS for HCPs, INDI 1150, RESP 1160.

**Corequisites:** RESP 3100, RESP 3120.

## **RESP 3120 Pathophysiology in Critical Care I – 2 credits**

This course presents an in-depth overview of advanced cardiopulmonary anatomy, physiology and pathology from the medical perspective. Communication skills used to facilitate the coordination of patient care with physicians and other healthcare professionals are emphasized through interaction with pulmonologists and/or other respiratory care experts. Offered in the College for Women.

**Prerequisites:** BIOL 2200, BIOL 2610, BIOL 2620 or permission of the department chair.

**Corequisites:** RESP 3100, RESP 3110.

## **RESP 3200W Advanced Therapeutics with Lab – 4 credits**

This course is designed to orient students to hemodynamic monitoring, electrocardiographic interpretation and arrhythmia recognition. Neonatal/pediatric respiratory care modalities, including ventilation and monitoring alternatives, are discussed. Research methods in respiratory care are presented in conjunction with a student project. Pulmonary rehabilitation and home care strategies are reviewed with emphasis on patient's quality of life. Intervention strategies are used to maximize communication with patients. This course is a designated writing intensive course. A variety of writing assignments are incorporated, including a formal research paper in accordance with Respiratory Care Journal publication guidelines.

**Prerequisite:** RESP 3100 with minimum C grade.

**Corequisites:** RESP 3210, RESP 3220.

## **RESP 3210 Clinical Applications II – 4 credits**

This course focuses on the clinical application of higher-level skills in the emergency and critical care settings. The primary emphasis of this clinical experience is on the ventilator management of patients across the lifespan (including neonatal, pediatric and adult patient populations). Students travel to clinical experiences two days per week in hospitals and clinics around the Twin Cities. Concepts related to critical thinking, ethics, interpersonal relationships, cultural diversity, and death and dying are integrated and addressed throughout this course. Principles of case management and the holistic assessment of total patient needs are emphasized using bedside patient rounds.

**Prerequisites:** RESP 3110, INDI 3150, current AHA BLS for HCPs.

**Corequisites:** RESP 3200W, RESP 3220.

## **RESP 3220 Pathophysiology in Critical Care II – 2 credits**

This course is a continuation of RESP 3120. This course presents an in-depth overview of advanced cardiopulmonary anatomy, physiology and pathology from the medical perspective. Communication skills used to facilitate the coordination of patient care with physicians and other healthcare professionals are emphasized through interaction with pulmonologists and/or other primary care physicians. Offered in the College for Women.

**Prerequisite:** RESP 3120.

**Corequisites:** RESP 3200W, RESP 3210.

## **RESP 3310 Clinical Applications III – 6 credits**

This is a continuation of RESP 3210 clinical activities. A lecture/discussion component addresses clinical topics and reviews content relevant to national board examinations.

**Prerequisites:** RESP 3210 with a minimum grade of C, current AHA BLS for HCPs.

**RESP 4100 Advanced Critical Care with Lab – 4 credits**

Using the Advanced Resuscitation and Intervention guidelines from the American Heart Association, emergency cardiopulmonary care for the adult, pediatric and neonatal patient are addressed. Interpretation of clinical case data promotes evidence-based analysis, critical thinking and clinical decision making in respiratory care. Respiratory care department management structure and responsibilities are discussed with review of standards required for accreditation. Offered in the College for Women.

**Prerequisites:** RESP 3200W, RESP 3220, RESP 3310 with a minimum grade of C.

**RESP 4115 Clinical Specialty I – 4 credits**

Students focus on a specialty option within respiratory care. Specialty options include adult critical care, pediatric critical care, neonatal critical care, management, education, cardiopulmonary diagnostics, hemodynamics, research, polysomnography, pulmonary rehabilitation and home care. Principles of communication, team building, critical analysis, teaching/learning, cultural sensitivity and professional role development are emphasized in each of these areas of clinical focus. Students consult with the program clinical director to make a specialty track selection.

This required clinical specialty option may be completed in RESP 4115 or RESP 4225. This course may be taken multiple times in different clinical specialties.

**Prerequisites:** RESP 3310 and current AHA BLS CPR for HCPs.

**RESP 4225 Clinical Specialty II – 4 credits**

Students focus on a specialty option within respiratory care. Specialty options include adult care, pediatric care, neonatal care, management, education, cardiopulmonary diagnostics, hemodynamics, research, polysomnography, pulmonary rehabilitation and home care. Principles of communication, team building, critical analysis, teaching-learning, cultural sensitivity and professional role development are emphasized in each of these areas of clinical focus. Students consult with the program clinical director to make a specialty track selection. This required clinical specialty option may be completed in RESP 4115 or RESP 4225. This course may be taken multiple times in different clinical specialties.

**Prerequisites:** RESP 3310 and current AHA BLS CPR for HCPs.

**RESP 4601 Internship – 1 credit**

This is a structured out-of-class learning experience that takes place on- or off-campus and includes a substantial work component. An internship involves students in a particular profession in an exploratory way to test career interests and potential. To initiate an internship experience, meet with the internship coordinator in the Career Development Office.

**Prerequisites:** Faculty sponsorship and approval by department chair.

**RESP 4602 Internship – 2 credits**

Structured out-of-class learning experience that takes place on or off campus and includes a substantial work component. An internship involves you in a particular profession in an exploratory way to test career interests and potential. To initiate an internship experience, meet with the internship coordinator in the Career Development Office.

**Prerequisites:** Faculty sponsorship and approval by department chair.

**RESP 4800W Senior Seminar – 4 credits**

This capstone course provides an opportunity for students to refine their knowledge and abilities to access and critically evaluate the professional literature in respiratory care for evidence-based practice. Seminar topics address professional role development as advanced respiratory care practitioners. Students conduct an in-depth review of current topics and materials in preparation for their comprehensive program examination and national board examination. A student project integrates research methods used in respiratory care. This course is a designated writing intensive course. A variety of writing assignments are incorporated, including a formal research paper in accordance with Respiratory Care Journal publication guidelines.

**Prerequisite:** RESP 4100 with a minimum grade of C.