

RENG-242L PV Installation & NEC I Lab 2 cr.

This course is the first in a two-semester laboratory sequence and accompanies RENG 242. Minimum grade required: C
Corequisites: RENG-242. Offered: Fall. Faculty Permission Required.

RENG-243 PV Installation and NEC II 3 cr.

This hands-on course will cover the National Electric Code (NEC) specifics concerning photovoltaic (PV) installation - article 690. Then, code compliant wiring of modules, inverters, charge controllers and batteries will be explored in detail. Students will use materials designed for installation practice both indoors and out. Existing PV installations will be visited and studied. Minimum grade required: C. Prerequisites: RENG-242, RENG-242L, and INST-144. Corequisites: RENG-243L, RENG-150. Offered: Spring. Faculty Permission Required.

RENG-243L PV Installation & NEC II Lab 2 cr.

This course is the second in a two-semester laboratory sequence and accompanies RENG-243. Minimum grade required: C
Corequisites: RENG-243. Offered: Spring. Faculty Permission Required.

RENG-252 Passive Solar Design and Analysis 4 cr.

Starts with an overview of various aspects of energy production, consumption, and quantification. Emphasis will be placed on efficiency and conservation. Quantification of incident solar energy is covered in detail along with the basic physics of energy conversion. Building energy analysis, including passive solar, will involve designing spreadsheets and using modeling software. Prerequisites: PHYS-111 and COSC-116. Offered: Fall.

RENG-260 Solar Thermal Design & Application 3 cr.

This course starts with an overview of various active solar thermal systems for both domestic water and space heating. Quantification of energy output for several non-concentrating collector types will be covered in detail and then used in the development of spreadsheets to model system behavior. Installation, start-up, and troubleshooting will be discussed. Concentrating, large-scale power plant basics are covered generally. Minimum grade required: "C." Prerequisites: RENG-252 with a C or higher. Offered: Spring.

RESPIRATORY THERAPY**RESP-110 RT Orientation & Patient Assessment 3 cr.**

This course introduces the scope of practice, education, licensure, organizations and brief history of the profession of respiratory care. It also presents the basic techniques of patient interview, medical record review, physical assessment, basic ECG, laboratory and chest x-ray assessment of the patient with cardiopulmonary disorder. Minimum grade required: C
Corequisites: RESP-112, RESP-114. Offered: Spring. Faculty Permission Required.

RESP-112 Community Health & Infection Control 3 cr.

This course presents an introduction to community health that includes basic concepts in epidemiology in the community, transmission of infectious diseases affecting public health, biological agents and bioterrorism. It also discusses

microbiological concepts that apply to the health sciences with the care of patients and protection against infectious diseases. Included are sterilization, disinfection and aseptic techniques. Corequisites: RESP-110, RESP-114. Offered: Spring. Faculty Permission Required.

RESP-114 Respiratory Physics/Medical Gas Therapy 3 cr.

This course introduces the basic concepts in the physics and the applications of gas laws in respiratory therapy. It discusses the physical characteristics of medical gasses, production, regulation, storage and distribution, and the therapeutic and diagnostic uses of oxygen. Minimum grade required: "C." Corequisites: RESP-110, RESP-112. Offered: Spring. Faculty Permission Required.

RESP-116 Cardiopulmonary Pharmacology 3 cr.

This course presents major pharmacological agents used in treating cardio-pulmonary diseases. It provides a discussion of pharmaceutical classification, drug action, and modes of administration, the metric system, medications and special handling procedures. Also included are cardiac drugs, sedatives, and pain maintenance drugs as they relate to cardio-pulmonary function. Minimum grade required: "C." Prerequisites: RESP-110. Minimum grade required: C. Corequisites: RESP-118, BIOL-253. Offered: Fall.

RESP-118 Diagnostic & Therapeutic Techniques 5 cr.

This course introduces basic cardiopulmonary diagnostic testing, specifically arterial blood gas (ABG) analysis and pulmonary function testing (PFT). It also covers the various therapeutic modalities used in respiratory care for humidity and aerosol therapy, lung expansion therapy, bronchial hygiene, chest physiotherapy and airway clearance. Prerequisites: RESP-110, RESP-112, and RESP-114. Minimum grade required: C. Corequisites: RESP-116, BIOL-253. Offered: Fall.

RESP-120 Cardiopulmonary Pathophysiology 3 cr.

This course presents a study of cardiopulmonary diseases, the etiology, clinical manifestations, clinical laboratory testing, respiratory laboratory testing, and respiratory care management of the disease. Prerequisites: RESP-116 and BIOL-253. Minimum grade required: C. Corequisites: RESP-122, RESP-124, RESP-126, RESP-128. Offered: Spring.

RESP-122 Critical Care Management 4 cr.

This course presents basic emergency airway management techniques and the concepts, applications, and monitoring of patients on mechanical ventilation. Included are non-invasive monitoring techniques, transcutaneous, capnography, and respiratory mechanics. Prerequisites: RESP-116, RESP-118, and BIOL-253. Minimum grade required: C. Corequisites: RESP-120, RESP-124, RESP-126, RESP-128. Offered: Spring.

RESP-124 Special Procedures in Respiratory Care 2 cr.

This course discusses chest tube and drainage systems, hemodynamic monitoring, sleep studies, bronchoscopy, Holter monitoring, exercise testing, and metabolic studies. Prerequisites: RESP-116, RESP-118, and BIOL-253. Minimum grade required: C. Corequisites: RESP-120, RESP-122, RESP-126, RESP-128. Offered: Spring.

RESP-126 Clinical Practicum I 5 cr.

This course provides clinical experience in basic therapeutic modalities in the clinical setting. This includes patient assessment, non-invasive monitoring, pulmonary function testing, blood gas analysis, EKG, chest x-ray, medical gas therapy, aerosol therapy, humidity therapy, IPPB, chest physiotherapy, and airway care. Prerequisites: RESP-116, RESP-118, and BIOL-253. Minimum grade required: C. Corequisites: RESP-120, RESP-122, RESP-124, RESP-128. Offered: Spring.

RESP-128 Clinical Simulation I 1 cr.

This course provides training with the use of human patient simulators in the ER and ICU labs. It includes basic cardiac life support (BCLS), advanced cardiac life support (ACLS), and simulation exercises in the management of chest pain, myocardial infarction, shock, asthma and other medical emergencies. Prerequisites: RESP-116, RESP-118, and BIOL-253. Minimum grade required: C. Corequisites: RESP-120, RESP-122, RESP-124, RESP-126. Offered: Spring.

RESP-220 Respiratory Simulation I 2 cr.

This course introduces the student on the preparation for the certification and written registry examinations by utilizing the guidelines of the National Board for Respiratory Care (NBRC). Prerequisites: RESP-120, RESP-122, RESP-124, RESP-126, and RESP-128. Minimum grade required: C. Corequisites: RESP-222, RESP-226, RESP-228. Offered: Fall.

RESP-222 Neonatal & Pediatric Respiratory Care 4 cr.

This course introduces assessment skills, resuscitative procedures and appropriate therapies needed to treat the pediatric patient. This course also includes a study of neonatal anatomy and physiology, labor and delivery, high risk infants, resuscitation, ventilator management, and common neonatal pathologies and modalities for their treatment. Prerequisites: RESP-120, RESP-122, RESP-124, RESP-126, and RESP-128. Minimum grade required: C. Corequisites: RESP-220, RESP-226, RESP-228. Offered: Fall.

RESP-226 Clinical Practicum II 5 cr.

This course is structured to provide the student the clinical experience in applying respiratory care modalities in an intensive or critical care and emergency settings. Included are modalities for airway care, ventilator management, and monitoring of adult patients. Prerequisites: RESP-120, RESP-122, RESP-124, RESP-126, and RESP-128. Minimum grade required: C. Corequisites: RESP-220, RESP-222, RESP-228. Offered: Fall.

RESP-228 Clinical Simulation II 1 cr.

This course provides training using human patient simulators in the ER and ICU lab. It includes pediatric advanced life support (PALS), neonatal resuscitation and simulation exercises in the management of selected neonatal and pediatric disorders. Prerequisites: RESP-120, RESP-122, RESP-124, RESP-126, and RESP-128. Minimum grade required: C. Corequisites: RESP-220, RESP-222, RESP-226. Offered: Fall.

RESP-230 Respiratory Seminar II 3 cr.

This course involves application of research and case studies to prepare for the clinical simulation examination by utilizing the

guidelines of the National Board for Respiratory Care (NBRC). Prerequisites: RESP-220, RESP-222, RESP-226, and RESP-228. Minimum grade required: C. Corequisites: RESP-232, RESP-236, RESP-238, RESP-240. Offered: Spring.

RESP-232 Pulmonary Rehabilitation & Home Care 2 cr.

This course presents the principles and applications of pulmonary rehabilitation, respiratory home care, and healthcare reimbursement. Included is sub-acute care geriatrics. Prerequisites: RESP-120, RESP-122, RESP-124, RESP-126, and RESP-128. Minimum grade required: C. Offered: Spring.

RESP-236 Ethics, Management & Wellness Promotion 2 cr.

This course discusses the ethical and professional practice of respiratory care, principles of management, concepts and strategies of teaching. Included are ethics, leadership and management, adult learning, health and wellness promotion. Prerequisites: RESP-126. Minimum grade required: C. Offered: Spring.

RESP-238 Clinical Simulation III 1 cr.

This course is a review of selected adult, pediatric and neonatal scenarios used in the clinical simulation examination of the National Board for Respiratory Care (NBRC). Prerequisites: RESP-220, RESP-222, RESP-226, and RESP-228. Minimum grade required: C. Corequisites: RESP-230, RESP-232, RESP-236, RESP-240. Offered: Spring.

RESP-240 Clinical Practicum III 5 cr.

This course is designed to provide clinical experience in general diagnostic therapeutic modalities for neonatal and pediatric patients in the clinical setting. Included are patient transport, mechanical ventilation, airway management, emergency care, and monitoring of neonatal and pediatric patients. Prerequisites: RESP-220, RESP-222, RESP-226, and RESP-228. Minimum grade required: C. Corequisites: RESP-230, RESP-232, RESP-236, RESP-238. Offered: Spring.

RUSSIAN**RUSS-111 Elem Russian I 3 cr.**

Develops listening, speaking, reading, and writing skills. Uses a communicative approach to cover vocabulary, grammar, conversation, and culture. Offered: On Demand.

RUSS-112 Elementary Russian II 3 cr.

Continuation of RUSS-111. Prerequisites: RUSS-111. Offered: On Demand.

SAFETY**SAFE-111 Safety "BEST" Awareness .5 cr.**

Satisfies the minimum safety training required by most companies found in an industry that requires man and machine to co-exist. Covers safety topics common to all industries. Offered: All. Faculty Permission Required.

SAFE-113 Confined Space-First Aid/CPR .5 cr.

For the entrant and attendant; the information and instructions will satisfy the minimum safety training required by most companies for participants to work in confined space operations. Will review