

Cardiopulmonary Science Care Course Descriptions

CPCS 1010 – ORIENTATION TO CARDIOPULMONARY PROFESSION (2-0-2)

Student must be enrolled by Program Director. History, professional ethics, professional organization, effective communication, introductory patient care techniques, and supervised clinical observation in an approved facility. Spring only. (510908)

CPCS 1500 – GENERAL PATIENT CARE AND THERAPEUTICS (1-1-0)

Student must be enrolled by Program Director. Prerequisites: C or better in CPCS 1010 and acceptance in the program. Chest physical assessment, clinical application of medical gases, aerosol/humidity therapy, CPAP/BiPAP, IPPB, incentive spirometry, and pulmonary physiotherapy. Summer only. (510908)

CPCS 2000 – CLINICAL APPLICATIONS AND PROCEDURES I (5-0-5)

Pre-requisites: C or better in CPCS 1500. Introduction to adult and pediatric general patient care techniques and therapeutic applications. Includes clinical experiences in hospitals and other health care institutions. Fall only. (510908)

CPCS 2040 – CARDIOPULMONARY PATHOPHYSIOLOGY (3-3-0)

Co-requisites: CPCS 2000, 2140. Infection control, cardiopulmonary diseases, and cardiopulmonary mechanics. Pathological processes basic to inflammation, infection, neoplasia, genetic and metabolic diseases, and selected endocrine disorders as related to cardiopulmonary care. Fall only. (510908)

CPCS 2140 – LIFE SUPPORT AND AIRWAY MECHANICS (3-3-0)

Co-requisites: CPCS 2000, 2040. Basic and advanced life support methods and critical care techniques of the newborn and adult patient. Fall only. (510908)

CPCS 2220 – CARDIOPULMONARY PHARMACOLOGY (3-3-0)

Pre-requisites C or better in CPCS 1500, 2000, 2040, 2140. Drugs, their indications, contraindications, side effects, dosage calculations, and techniques of administration. Emphasis on drugs affecting the cardiovascular, pulmonary, and renal systems. This course is also available via Internet. Basic computer knowledge is required for students enrolled in the Internet section. Spring only. (510908)

CPCS 2250 – CARDIOPULMONARY DIAGNOSTICS (4-4-0)

Co-requisites: CPCS 2220, 2280, 2500. Introduction to basic and advanced cardiovascular diagnostic and monitoring techniques. Emphasis on electrocardiography, cardiac ultrasound, cardiovascular hemodynamics, critical care monitoring, and cardiovascular rehabilitation. Spring only. (510908)

CPCS 2280 – PERINATOLOGY AND PEDIATRICS DIAGNOSTICS (3-3-0)

Co-requisites: CPCS 2220, 2250, 2500. The development of the cardiopulmonary system from embryo to puberty. Cardiopulmonary dysfunctions of the newborn and infant; techniques for basic and advanced therapeutic and diagnostic procedures and patient care. A combined lecture and laboratory course. Spring only. (510908)

CPCS 2500 – CLINICAL APPLICATIONS AND PROCEDURES II (5-0-5)

Co-requisites: CPCS 2220, 2240, 2250, 2280. Clinical experience in an authorized hospital. Clinical application of intermediate and advanced techniques in critical care. Clinical application of

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cardiopulmonary diagnostic studies. Assessment of program product competency via self-assessment examination. Spring only. (510908)

CPCS 2700 – COMPREHENSIVE CARDIOPULMONARY THERAPEUTICS (2-1-1)

Prerequisites: C or better in CPCS 2220, 2240, 2250, 2280, 2500. Review of content commonly included on national credentialing examinations in respiratory care and cardiovascular technology. Evaluation and assessment of clinical performance skills and knowledge base via laboratory and clinical evaluations, computer based competency simulations, and therapist self-assessment examination. Summer only. (510908)

CPCS 2800 – CLINICAL APPLICATIONS AND PROCEDURES III (3-0-3)

Co-requisite: CPCS 2700. Clinical experience in an authorized hospital setting. Emphasis is placed on the clinical application of cardiovascular diagnostics. Summer only. (510908)