Graduate Council Report

November 1, 2012

New Course Requests

BMEN 657. Orthopedic Biomechanics. (3-0). Credit 3. Fundamental course in orthopedic biomechanics designed to develop competencies in biomechanical principles using practical examples and clinical case studies of how biomechanical knowledge is applied to the evaluation of musculoskeletal tissues and structures, and treatment options for musculoskeletal dysfunction. Prerequisite(s): Admitted into the major degree sequence in Biomedical Engineering and graduate classification. Stacked with BMEN 457.

CVEN 741. Tools for Highway Materials and Pavement Design. (3-0). Credit 3. Theory and practice in pavement design; pavement performance; structural design of pavement layers; types of materials used in pavement layers; characterization of pavement layer materials; concepts of pavement management; hands-on application of pavement design computational tools. Prerequisite(s): Graduate classification in civil engineering or approval of instructor. Stacked with CVEN 418.

ECEN 773. Introduction to Nanophotonics. (3-0). Photonic bandgap optical circuitry, photonic crystal fiber; Visible to infrared semiconductor quantum lasers; Semiconductor quantum dots. Plasmonic field enhancement, plasmonic optical circuitry, sub-wavelength optical lithography, negative refractive index and sub-wavelength optical imaging. Nano-structure characterization techniques, atomic force microscopy, near-field optical microscopy, scanning and transmission electron microscopy. Prerequisite(s): Basic Physics. ECEN 370 electronic materials or equivalent. ECEN 322 electromagnetic or equivalent.

EPSY 606. Motivation and Emotion for Optimal Learning and Performance. (3-0). Credit 3. Role of motivation and emotion in human learning and performance; major theories and empirical research relevant to motivation and emotional impacts of learning, performance, or functioning in a variety of situations, contexts, and cultures; content applied across multiple disciplines including education, counseling or therapeutic outcomes, achievement performance in school, art, music and sports. Prerequisite(s): EPSY 602 or approval of instructor; graduate classification.

SPED 602. Ethics and Professional Conduct in Special Education and Applied Behavior Analysis. (3-0). Credit 3. Focus on ethical and professional conduct required for special educators and behavior analysts; information required for certified behavior analysts; ethics required by the Behavior Analyst Certification Board; highly relevant for those working with children or adults with disabilities in any capacity. Prerequisite(s): approval of department head; graduate classification.

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Course Change Requests

SCSC 618: Advanced Soil Analysis

TITLE:

FROM: Advanced Soil Analysis

TO: Analysis of Environmental Systems

PREREQUISITE(S):

FROM: SCSC 422 or approval of instructor

TO: Graduate Classification

COURSE DESCRIPTION:

FROM: Fundamental procedures for analysis of soils and sediments including chemical, spectrophotometric, electrometric, chromatographic and sample handing; methods important to the soils researcher and analyst.

TO: Classical and contemporary methods for analyzing chemical components of environmental systems, soil, water, plants and gases; environmental chemistry coupled with experiential.

CREDIT HOURS:

FROM: Lecture: 2; Lab: 3; Credit Hours: 3

TO: Lecture: 1; Lab: 2; Credit Hours: 2