EXSC 225 Introduction to Exercise Science (3 Credit Hours)
Broad overview of exercise science including the history of the discipline and introduction to the following: Healthy People 2010 goals and objectives related to physical activity and nutrition; basic principles of nutrition, body composition, applied physiology, functional anatomy, and exercise prescription/programming for healthy individuals and those who are high risk/diseased; career opportunities in various allied-health fields such as physical therapy, physician assistant, personal training, community/corporate/hospital-based wellness programs, cardiac rehabilitation; and research areas in exercise science.
Prerequisites: open only to students with Exercise Science as a concentration or major or minor

EXSC 240 Prevention and Care of Injuries Related to Physical Activity (3 Credit Hours)
Practice in the skills of injury recognition and evaluation and training in cardiopulmonary resuscitation. Principles and uses of therapeutic modalities are also discussed.
Prerequisites: BIOL 240 or BIOL 250 AND MATH 102M or higher with a C or better

EXSC 250 Strength and Conditioning Leadership (3 Credit Hours)
This course will provide the student with skills in exercise leadership. The student will learn how to lead resistance training, flexibility training, cardiovascular training involving a variety of exercise modes, and group exercise, such as step aerobics.
Prerequisites: BIOL 240 or BIOL 250 AND MATH 102M or higher with a C or better

EXSC 322 Anatomical Kinesiology (3 Credit Hours)
Anatomical and mechanical analysis of human musculoskeletal function including skeletal, muscular, and neuromuscular control aspects necessary for movement.
Prerequisites: BIOL 240 or BIOL 250 AND MATH 102M or higher with a C or better

EXSC 326 Exercise Physiology I (3 Credit Hours)
An investigation into the metabolic adaptations, neuromuscular, endocrinological, and respiratory responses to acute and chronic exercise endeavors. Implications for enhanced health and physical performance are integrated.
Prerequisites: BIOL 240 or BIOL 250 with a C or better and MATH 102M or higher with a C or better
Pre- or corequisite: BIOL 241 or BIOL 251 with a C- or better and CHEM 121N and CHEM 122N with a C- or better

EXSC 327 Exercise Physiology II (3 Credit Hours)
Focuses on cardiovascular responses to exercise and applied exercise physiology, specifically the effects of different training modes, environmental factors, aging, disease states, nutrition, and ergogenic aids.
Prerequisites: BIOL 240 or BIOL 250 AND MATH 102M or higher with a C or better; EXSC 326

EXSC 366 Exercise Science Seminar (1 Credit Hour)
Seminar will include resume and cover letter writing skills, internship requirements, agency placement referrals, interviewing techniques, and certification options.
Prerequisites: BIOL 240 or BIOL 250 AND MATH 102M or higher with a C or better; EXSC 326

EXSC 368 Internship (12 Credit Hours)
Final field placement required for all students with an emphasis in exercise science. Students will be placed in an agency to gain experience in methodologies, administration techniques, and programs specific to their area of emphasis. Minimum of 400 clock hours. (qualifies as a CAP experience)
Prerequisites: senior standing, permission of the instructor, and completion of all required courses in appropriate emphasis areas

EXSC 369 Practicum in Exercise Science (3-6 Credit Hours)
Field-based experience in a fitness or allied-health setting. Minimum of 200 clock hours.
Prerequisites: EXSC 225

EXSC 397 Independent Study (1-3 Credit Hours)
Independent study of special topics under supervision of faculty.
Prerequisites: Junior standing and permission of the instructor

EXSC 403 Lifetime Fitness and Wellness (3 Credit Hours)
The focus of this course is on a positive healthy lifestyle designed to enhance the current and future quality of life. Topics include: proper exercise programs, healthful nutrition, stress management techniques, and avoidance of high-risk health behaviors in order to reduce disease risk and promote healthful aging. Various laboratory assessments are used to identify health status and recommend remedial approaches.
Prerequisites: Junior standing

EXSC 408/508 Nutrition for Fitness and Sport (3 Credit Hours)
Emphasizes the role of nutrition as a means to enhance health and performance in sport. Topics covered include energy metabolism and nutrients, regulation of metabolism by vitamins and minerals, and weight control.
Prerequisites: BIOL 240 or BIOL 250 with a C or better and MATH 102M or higher with a C or better
Pre- or corequisite: BIOL 241 or BIOL 251 with a C- or better and CHEM 121N and CHEM 122N with a C- or better

EXSC 415/515 Exercise Testing for Normal and Special Populations (4 Credit Hours)
The application of different methodologies in the measurement of physiologic responses to exercise. Emphasis is placed on understanding American College of Sports Medicine guidelines, appropriate experimental techniques, and equipment necessary to evaluate changes in body composition and various metabolic, cardiovascular, and respiratory adjustments during exercise.
Prerequisites: BIOL 240 or BIOL 250 AND MATH 102M or higher with a C or better; EXSC 326

EXSC 417/517 Biomechanics (4 Credit Hours)
Application of physical laws and mechanical principles to the human musculoskeletal system.
Prerequisites: BIOL 240 or BIOL 250 and MATH 102M or higher with a C or better; PHYS 111N with a C- or better; EXSC 322

EXSC 420 Research Methods in Exercise Science (3 Credit Hours)
Introduction to the scientific method applied to exercise science research including bioethics, review of the literature, research design, data collection, appropriate statistical analysis, research writing, and peer review.
Prerequisites: BIOL 240 or BIOL 250 and MATH 102M or higher with a C or better; STAT 130M

EXSC 428/528 Exercise Prescription for Chronic Disease (3 Credit Hours)
A study of pathophysiology of common diseases with concentration in the design, implementation and administration of exercise prescription for a variety of chronic diseases.
Prerequisites: BIOL 240 or BIOL 250 AND MATH 102M or higher with a C or better; EXSC 326

EXSC 431W/531 Wellness Programming and Administration (3 Credit Hours)
This course provides an introduction to the principles of administration and implementation of fitness and wellness programs to individuals, groups, centers, and corporate settings. This is a writing intensive course.
Prerequisites: BIOL 240 or BIOL 250, MATH 102M or MATH 103M or MATH 162M, and ENGL 211C or ENGL 221C or ENGL 231C with a C or better

EXSC 508 Nutrition for Fitness and Sport (3 Credit Hours)
Emphasizes the role of nutrition as a means to enhance health and performance in sport. Topics covered include energy metabolism and nutrients, regulation of metabolism by vitamins and minerals, and weight control.
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