

EXERCISE SCIENCE (EXSC)

Courses

EXSC 1150. Intro to Exercise Science. 1 Credit.

Introduces students to the discipline of exercise science, the responsibilities of the exercise science professional, and varied career paths in the field.

EXSC 1650. Foundations Ex & Hlth Act Pop. 3 Credits.

Provides a foundation of knowledge in the field of exercise science with a primary focus on maintaining health and performance in a physically active population. Surveys the basics of physical performance development, and injury prevention and care common to physically active populations. Prerequisites: Exercise Science major, Physical Education major, or Instructor permission.

EXSC 1990. Special Topics. 1-18 Credits.

See Schedule of Courses for specific titles.

EXSC 1991. Internship. 1-3 Credits.

On-site supervised work experience combined with a structured academic learning plan directed by a faculty member or a faculty-staff team in which a faculty member is the instructor of record, for which academic credit is awarded. Offered at department discretion.

EXSC 1993. Independent Study. 1-18 Credits.

A course which is tailored to fit the interests of a specific student, which occurs outside the traditional classroom/laboratory setting under the supervision of a faculty member, for which credit is awarded. Offered at department discretion.

EXSC 2200. EBP in Exercise Science. 3 Credits.

Develops students' basic evidence-based practice knowledge and skills, and applies findings to their practice as health and wellness professionals. Topics addressed include evidence-based practice research methods, research study design, basic statistics, and evaluation of research evidence as they apply to clinical practice and decision making. Prerequisite: Exercise Science major.

EXSC 2420. Exercise and Sport Psychology. 3 Credits.

Emphasis on personality and behavioral dynamics of sport, psychological changes associated with exercise, assessment, performance enhancement, motivation, anxiety, group processes, and exercise adoption and maintenance. Prerequisite: PSYS 1400.

EXSC 2750. Applied Kinesiology. 3 Credits.

Foundational course examining applied kinesiology of human movement with focus on musculoskeletal anatomy. Prerequisite: Minimum Sophomore Exercise Science major.

EXSC 2990. Special Topics. 1-18 Credits.

See Schedule of Courses for specific titles.

EXSC 2991. Internship. 1-18 Credits.

On-site supervised work experience combined with a structured academic learning plan directed by a faculty member or a faculty-staff team in which a faculty member is the instructor of record, for which academic credit is awarded. Offered at department discretion.

EXSC 2993. Independent Study. 1-3 Credits.

A course which is tailored to fit the interests of a specific student, which occurs outside the traditional classroom/laboratory setting under the supervision of a faculty member, for which credit is awarded. Offered at department discretion.

EXSC 2994. Teaching Assistantship. 1-3 Credits.

Undergraduate student service as a teaching assistant, usually in an introductory level course in the discipline, for which credit is awarded. Offered at department discretion.

EXSC 2995. Undergraduate Research. 1-18 Credits.

Undergraduate student work on individual or small team research projects under the supervision of a faculty member, for which credit is awarded. Offered at department discretion.

EXSC 3130. Biomechanics of Human Movement. 3 Credits.

The application of kinesiology and biomechanical principles and concepts to the analysis of human movement, posture, joint structure and function, and gait. Prerequisites: ANPS 1190, ANPS 1200, EXSC 2750.

EXSC 3400. Motor Skill Learning & Control. 3 Credits.

Examines theoretical perspectives and current principles associated with the control and learning of movement skills. Practical application of concepts to instructional and clinical settings emphasized. Prerequisites: Minimum Junior standing; Exercise Science or Teacher Education Physical Education majors only.

EXSC 3450. Evaluation & Prescription. 3 Credits.

Delivers in-depth applied and clinical functional measurement and evaluation techniques with subsequent exercise prescription for a variety of populations and conditions. Prerequisite: Senior standing in Exercise Science. Pre/Co-requisites: EXSC 3500, EXSC 3501, Senior standing in Exercise Science.

EXSC 3500. Exercise Physiology. 3 Credits.

Explores the acute and long-term responses to exercise on the metabolic, skeletal, cardiovascular, and respiratory systems. Prerequisites: ANPS 1190, ANPS 1200.

EXSC 3501. Exercise Physiology Lab. 1 Credit.

Teaches how to measure and evaluate physiological function and structure. Prerequisites: ANPS 1190, ANPS 1200. Co-requisites: EXSC 3500.

EXSC 3600. Adapted Physical Activity. 3 Credits.

Examines current issues surrounding physical activity programming for individuals with disabilities. Emphasizes instructional strategies and modifications for effectively including individuals with diverse abilities into physical activity. Prerequisite: Exercise Science or Teacher Education Physical Education major; minimum Junior standing. Catamount Core: D2.

EXSC 3620. Human Perf & Ergogenic Aids. 3 Credits.

An exploration of ergogenic and pharmacological supplements germane to the sport and exercise arena. Topics will include legal, banned, and over the counter pharmacological supplementation for performance enhancement and physiological improvement, drug testing procedures of major groups, and current position statements and/or research in this area. Prerequisites: Exercise Science major; EXSC 3450 or EXSC 3500.

EXSC 3630. Exercise in Chronic Conditions. 3 Credits.

Advanced course in exercise prescription for a variety of unique populations. Recommended modifications and techniques that support fitness testing and programming for individuals with specific exercise needs will be reviewed. Prerequisites: EXSC 3600; Senior standing in Exercise Science.

EXSC 3640. Certified Exerc Physiologist. 3 Credits.

Designed to prepare students for the ACSM Certified Exercise Physiologist exam and includes a high level review of exercise physiology, risk stratification, and fitness assessments. Prerequisites: EXSC 3500, EXSC 3450; Senior standing.

EXSC 3700. Exer Sci Professional Seminar. 1 Credit.

Junior seminar that bridges the foundational curricular experience with professional practice and/or post-graduate education. Professional seminar topics include but are not limited to: resume development, interviewing techniques, collaborative communication, etc.

EXSC 3860. Screening & Assessing Movement. 3 Credits.

Analyzes movement, mobility, and stability of the human body; provides a hands-on clinical approach to screening and assessment of human movement; reviews the literature of movement development and abnormalities; introduces basic corrective strategies for dysfunctional or abnormal movement patterns. Prerequisite: EXSC 3130.

EXSC 3960. Human Perform and Conditioning. 3 Credits.

Provides a hands-on, applied overview of current research in the fields exercise and sport science. Emphasis on the understanding and application of findings specific to acute and chronic adaptations in resistance training and conditioning from the cellular to whole-body/functional levels. Prerequisites: EXSC 2750, EXSC 3500.

EXSC 3990. Special Topics. 1-18 Credits.

See Schedule of Courses for specific titles.

EXSC 3991. Internship. 1-18 Credits.

On-site supervised work experience combined with a structured academic learning plan directed by a faculty member or a faculty-staff team in which a faculty member is the instructor of record, for which academic credit is awarded. Offered at department discretion.

EXSC 3993. Independent Study. 1-4 Credits.

A course which is tailored to fit the interests of a specific student, which occurs outside the traditional classroom/laboratory setting under the supervision of a faculty member, for which credit is awarded. Offered at department discretion.

EXSC 3994. Teaching Assistantship. 1-3 Credits.

Undergraduate student service as a teaching assistant, usually in an introductory level course in the discipline, for which credit is awarded. Offered at department discretion.

EXSC 3995. Undergraduate Research. 1-18 Credits.

Undergraduate student work on individual or small team research projects under the supervision of a faculty member, for which credit is awarded. Offered at department discretion.

EXSC 4720. Senior Capstone Experience. 1-6 Credits.

Supervised capstone experience in Exercise Science. Prerequisite: Senior standing in Exercise Science.

EXSC 4990. Special Topics. 1-18 Credits.

See Schedule of Courses for specific titles.

EXSC 4993. Independent Study. 1-18 Credits.

A course which is tailored to fit the interests of a specific student, which occurs outside the traditional classroom/laboratory setting under the supervision of a faculty member, for which credit is awarded. Offered at department discretion.