EXERCISE SCIENCE

Department Website (http://www.sph.sc.edu/exsc/)

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The mission of the Department of Exercise Science is to expand and disseminate the body of knowledge concerning the relationship between physical activity and human health. A key objective of the Department of Exercise Science is to expand the body of knowledge in the exercise sciences by conducting and publishing research that contributes to an understanding of the following:

- effects of acute and chronic exercise on human function and health
- physiologic and biochemical mechanisms that underlie responses and adaptations to exercise
- physiologic responses to acute and chronic exercise in special populations including children, females, the elderly, chronic disease patients, and those with neurological and/or orthopedic impairments
- neuromuscular and neurophysiological processes associated with motor skill development
- developmental and aging aspects of motor function
- appropriate methods of designing and delivering physical activity programs for purposes of health enhancement, neuromuscular rehabilitation, and perceptual-motor functioning
- behavioral and psychosocial aspects of physical activity.

The Department of Exercise Science offers the following degrees: Master of Science in Athletic Training, Master of Science in Advanced Athletic Training, Master of Public Health, Master of Science, Doctor of Philosophy, and Doctor of Physical Therapy.

Program Overviews

Master's Degrees

Master of Science in Athletic Training/Advanced Athletic Training

The UofSC AT Program is housed in the Department of Exercise Science in the Arnold School of Public Health. The UofSC AT Program has maintained its accreditation through the Commission on Accreditation of Athletic Training Education (CAATE) since 1996.

The UofSC AT Program provides students with the theoretical knowledge and understanding of the athletic training profession in the context of the larger health care system as well as its current procedures and techniques in sport injury management. Students gain this knowledge through required coursework and clinical experiences as they prepare to make successful contributions to the athletic training profession. The program combines formal classroom instruction and clinical experiences in a process that culminates in the student graduating with eligibility to sit for the Board of Certification (BOC) examination. Students who graduate from the program and subsequently pass the BOC examination will be qualified to be employed as an athletic trainer in a variety of settings, including NFL, MLB, NBA, professional soccer, Division 1 (FBS) colleges, secondary schools, youth sports, orthopedic clinics, hospitals, wellness centers, industry, NASCAR, Cirque du Soleil, US Military, performing arts, and many other places/settings.

Master of Public Health in Physical Activity and Public Health (MPH-PAPH)

The Master of Public Health in Physical Activity and Public Health is the first academic program in the nation designed to prepare professionals to increase physical activity and improve health in populations. The MPH-PAPH program provides students with the essential knowledge, skills and experiences to design, implement and evaluate physical activity interventions. With the MPH-PAPH degree, there are many career opportunities in the areas of: health and wellness, active transportation to school, corporate wellness, transportation and community design, parks and recreation, chronic disease prevention, community-based physical activity interventions, policy and environmental change, and preparation for working in local and state health departments.

Master of Science (M.S.)

The Master of Science [JO1] (p.) (MS) degree in Exercise Science provides students with foundational content in exercise physiology, research methods and statistics and offers flexibility to select coursework in specific areas of interest, including: applied physiology, neuro-rehabilitation, and sports performance. With the MS in Exercise Science, there are many career opportunities in the areas of: strength and conditioning, sport science, performance nutrition, clinical exercise physiology, cardiac rehabilitation, physical rehabilitation, corporate fitness, health and wellness, research and preparation for additional graduate training (e.g., PhD, DPT, MD, PA). There are many opportunities to participate in ongoing research through assistantships and independent study courses. Students have the option of completing a thesis (focus on research training) or a project (focus on clinical or applied skills training).

Doctoral Degrees

Doctor of Philosophy (Ph.D.)

The Ph.D. program in exercise science is designed to prepare students for research careers in the exercise sciences; graduates are trained for entry into positions in universities, colleges, research institutes and research-oriented clinical settings. Areas of research emphasis correspond to those of the departmental faculty. The Ph.D. degree requires an approved program of up to 60 hours beyond the baccalaureate degree. Students with a master's or DPT degree admitted to the PhD program in Exercise Science, may complete the PhD program in Exercise Science by completing a minimum of 30 additional credit hours (including 12 credit hours of dissertation preparation). Students completing the PhD must meet minimum core requirements including at least 6 hours in Department of Exercise Science or specific area of emphasis, 6 hours in statistics and research design and 12 hours of dissertation preparation. Programs of study are developed by the student's advisory committee and must conform to requirements described in the Graduate Studies Bulletin. Additional information may be found in the Handbook for Graduate Students in Exercise Science.

Doctor of Physical Therapy (D.P.T.)

The Physical Therapy Program at the University of South Carolina offers students a unique opportunity to develop clinical physical therapy skills in an intimate learning environment. The 3 year Clinical Doctoral program starts in August of each year and admits a small class size that allows students an opportunity to get individualized instruction and closely interact with instructors. Students complete a research project focused on clinical practice and learn the value of evidence-based practice. Following completion of the DPT, students are eligible to sit for the national physical therapy licensure exam.

Program Requirements for Exercise Science Degree Programs

A listing of specific courses needed to meet these requirements is available in the department's Handbook for Graduate Students in Exercise

Science. Areas of research emphasis in all degree programs correspond to those of the departmental faculty.