EXERCISE AND SPORTS PHYSIOLOGY

Exercise and Sports Physiology covers broad area of investigation including in both healthy people and elite athletes who are engaging physical activity, exercise and sports to improve not only their health and fitness but also to deal with high levels of physical stress. Exercise and Sport Physiology investigates adaptation mechanisms of organisms from molecular to system levels during acute and chronic exercise. Currently, researches in the Exercise and Sports Physiology is being conducted in various laboratory settings at the Department of Exercise and Sports Sciences of the Faculty of Sport Sciences. Muscle Biochemistry and Exercise Physiology laboratory is focused on mechanisms of skeletal muscle atrophy. Specifically, the molecular mechanisms to prevent sarcopenia and adaptation mechanisms of both skeletal and cardiac muscles to exercise and various environmental stresses are the main research areas of the laboratory. Students follow main classes from the Sports Sciences and Technology Graduate Program at the Health Sciences Institute. In addition, students can take classes from other programs such as Biochemistry and Physiology to achieve high levels of understanding before starting to work on their master thesis and PhD dissertations.

SPORTS AND COACHING

"Sports and Coaching" research area has multidisciplinary approach to the athletic training. Sport and coaching is interested in evaluating physical and physiological effects of training on human organism, assessment and evaluation of performance and training variables in the evaluation and development of elite performance.

SPORTS BIOMECHANICS AND MOTOR CONTROL

Sports biomechanics involves research investigating mechanical parameters of human motion in sports. Sports biomechanics can help to improve performance by means of developing more effective motion technique as well as to avoid injury. Multi-element design of the human body and degrees of freedom problem in the acquisition and execution of motor skills challenge our understanding of how central nervous system controls purposeful and coordinated movements. The study of motor control, therefore, has been approached from a wide range of disciplines, including cognitive science, biomechanics and neuroscience. Students will gain an in-depth understanding in the field of sports biomechanics and motor control that is ranging from experimental equipment requirements and utilization through to the theoretical considerations and research problems. Work consists of hands-on laboratory and field techniques, theoretical modelling and computer simulation of human movements, as well as critical analysis, discussions and presentations of research projects.

EXERCISE AND SPORT PSYCHOLOGY

Exercise and Sport Psychology involves study of human behavior in psychological point of view in sports and physical activity settings. Research in the area of exercises and sport psychology has accumulated considerable evidence showing that the characteristics of individual performer interact with factors in the social-environment to determine the individual's behavior in specific sport or physical activity contexts.

PHYSICAL EDUCATION & SPORTS TEACHER EDUCATION

Physical Education and Sport has multidisciplinary approach towards education of movement and sport skills and promoting healthy lifestyle. The program focuses on curriculum and instruction designed to prepare individuals teaching and research. Physical education and sports is dealing with curriculum development, teaching and learning, sport pedagogy and supervision of teachers and programs. Upon completion of gradute program, students will be equipped with knowledge and skills to teach courses in curriculum design, methods of teaching, foundations in physical education and sport, sport pedagogy, designing and using technology, and supervise student teachers.

NUTRITION AND METABOLISM IN EXERCISE

Exercise and nutrition are the major components of health promotion, disease prevention, and the optimization of sport performance. "Nutrition and Metabolism in Exercise" is a theoretical and applied field of expertise examining the effects of nutrition and the use of ergogenic aid as well as strategies on human health and metabolism, body composition, exercise capacity and sports performance. In this context, studies in the field of Nutrition and Metabolism in Exercise require the integration of nutrition, metabolism, exercise physiology, and exercise biochemistry. Studies in the field mainly examine the metabolic effects of exercise and nutrition on health in different groups (children, the elderly, obese, athletes etc.) as well as the optimization of sport performance through nutrition and ergogenic aids from recreational to elite level. In this regard, the effects of exercise and nutrition on insulin resistance, metabolic syndrome associated with sedentary life style, obesity and aging; adaptations of the organism to nutrition and exercise, particularly, in skeletal muscle and adipose tissue level; effects of food intake and supplements on fuel selection and major physiological functions during exercise; and the effects of post-exercise nutrition on recovery and sport performance are the main research themes of the department.

SOCIAL ISSUES IN SPORTS

Social Issues in sports utilizes the theories and methods of social sciences in its research activities. The research area dealing with the social dimensions of participation in sports and recreational activities is a far-reaching social field structure including main areas such as sociology, anthropology, economics, history, philosophy, political science, management and also gender and media studies. The main topics of the area are production and consumption of sports in society, multiculturalism, social inequality, health and participation to activities, cross-cultural analyses and sports policies.

PHYSICAL ACTIVITY AND HEALTH

Physical Activity and Health provides students with the opportunity to further develop knowledge and understanding of both theoretical principles and practical techniques related to the physical activity assessment methods, promotion of physical activity for different populations and settings. The research area offers studying determinants of physical activity and inactivity, measuring physical activity behavior, the effectiveness of health and educational policies in increasing physical activity and decreasing physical inactivity in different communities.

Sport Sciences and Technology Graduate Programs

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Hacettepe University Faculty of Sport Sciences was established as a Department at the Faculty of Education in 1989 which aim to train physical education teachers and athletic trainers to provide them new approaches, required scientific knowledge and skills. Since its foundation, the Faculty has major research fields such as, training and movement sciences, physical education, sports medicine, sports management and organization, and psycho-social aspects of sports. In1991 it started to offer post graduate education. This is the most important step of the transition from "Physical Education" to "Sport Sciences" in Turkey. In 1992, with the nation's leading departments, Department of Sport Sciences and Technology has been transformed into "School of Sport Sciences and Technogy". At first, graduates attained knowledge about physical education teaching and in a practical and theoretical fields of sport sciences. On 10th November 2013, it was named as "Faculty of Spor Sciences" . Since 2000, the Faculty offers undergraduate programs which recently renamed as "Exercise and Sport Sciences", "Physical Education and Sports Teaching" and "Recreation" . Faculty of Sport Sciences had put into practice the concept of "Sports Sciences" and used multi and inter-disciplinary structure of the sport sciences for the first time in Turkey.

Hacettepe University Faculty of Sports Sciences is offering both Masters and Doctorate degrees at the Graduate School of Health Sciences. Since sports sciences is multidisciplinary area, "Sports Sciences and Technology Graduate Program" is organized under research areas. Students need to look carefully at faculty members through our webpage to decide whose current research interests most appeal to them.

Research Areas in Graduate Education

EXERCISE AND SPORT SCIENCES

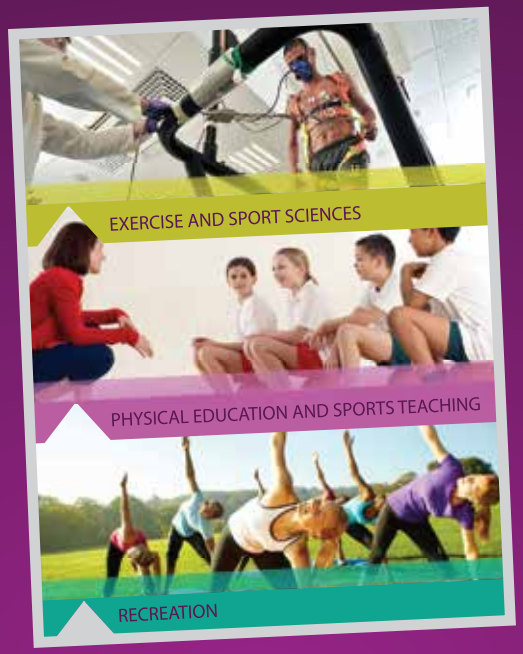
- Exercise and Sport Physiology
- Sports and Coaching
- Sports Biomechanics and Motor Control
- Exercise and Sports Psychology

PHYSICAL EDUCATION AND SPORTS TEACHER EDUCATION

- Physical Education and Sports
- Adapted Physical Education

RECREATION

- Social Sciences in Sport
- Nutrition and Metabolism in Exercise
- Physical Activity and Health



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FACULTY OF SPORT SCIENCES

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Graduate Programs