# **EXERCISE SCIENCE**

The goal of the Exercise Science program is to prepare students for entrylevel exercise science careers involving people on a broad continuum of health and physical fitness, and in a wide variety of settings. The Exercise Science program is formed on the biological and physiological sciences and focused on human work, which encompasses recreation, athletic competition, occupation and medical therapy. The rigorous curriculum builds upon the foundational study of health, fitness concepts, and nutrition to lead students through the more advanced study of exercise biochemistry, physiology, and prescription in populations that range from elite athlete to end-stage heart failure. Students in the Exercise Science program are required to acquire and integrate a large body of scientific knowledge, while simultaneously developing the clinical skills and abilities to include behaviors and attitudes of entry-level exercise specialists, which were established by the American College of Sports Medicine. The program is enriched by major requirements that intentionally attend to written and verbal discourse in the discipline, and research literacy. Finally, our mission is one of Christian service to our community, local and global, though faith, reason and justice. The Exercise Science program received accreditation through the Commission on Accreditation of Allied Health Education Programs (CAAHEP) in September 2009.

Students are evaluated across academic and non-academic factors to insure that they can successfully perform the essential functions of the academic program required for graduation. Retention decisions made by the faculty are based on academic achievements as well as non-academic factors. The Exercise Science program meets our responsibility to society to graduate knowledgeable, competent and caring exercise specialists, by requiring that they meet academic standards as well as the essential functions of the program. Consistent performance across all of these domains is required to progress through the curriculum and to meet the requirements for graduation from the Exercise Science program. Policies and procedures for eligibility for graduation are located in the Student Handbook: Requirements for Graduation.

Essential Functions refer to acceptable demonstration of mastery and/ or competence in various disciplines throughout the exercise science education program. Acceptable levels of mastery are judged by faculty members, examinations, and other measurements of performance.

These areas of competency are:

- Affective skills that include emotional, behavioral/social professionalism and cultural competence.
- Cognitive skills that include sufficient intellectual, conceptual, integrative and quantitative abilities to make effective judgments about client management.
- Motor skills that include the necessary psychomotor clinical skills for client care
- Sensory skills including perceptual and observation skills necessary for client care.
- Communication skills including verbal (oral and written) and nonverbal abilities.

These essential functions are the aptitudes and abilities set forth by the ACSM that enable the exercise science specialist to provide the necessary care to their clients.

### **Students with Disabilities**

It is our experience that individuals with disabilities (as defined by Section 504 of the Rehabilitation Act and the American Disabilities Act) may be qualified to study and practice exercise science with the use of reasonable accommodations. To be qualified to study exercise science at Eastern University, students must be able to meet both our academic standards and essential functions, with or without reasonable accommodations. Accommodation is viewed as a means of assisting students with disabilities to meet essential standards by providing them with an equal opportunity to participate in all aspects of each course or clinical experience. (A reasonable accommodation is not intended to guarantee that students will be successful in meeting the requirements of any one course or internship).

# The Use of Auxiliary Aids and Intermediaries

Qualified students with documented disabilities, who are provided with reasonable accommodations, may use an intermediary or auxiliary aid. No disability can be reasonably accommodated with an intermediary that provides cognitive support or substitutes for essential clinical skills or supplements clinical and ethical judgments. Such reasonable accommodations should be designed to help the students meet learning outcomes without eliminating essential program elements or fundamentally altering the curriculum. Thus, accommodations cannot eliminate essential program elements or fundamentally alter the Exercise Science curriculum.

#### **Procedure**

- Students must make an appointment with the Department Chair to
  officially declare the major. At this meeting, all students must sign a
  form acknowledging that they have read and understand the essential
  functions.
- Students who may have concerns about meeting these expectations are advised to meet with the Chair of the Department of Kinesiology.
- 3. If a student feels that he/she requires reasonable accommodation for didactics and/or clinical components of the program, he/she must contact the Cushing Center for Counseling and Academic Support before accommodations can be considered. Students who have a change in status at any point during their matriculation in the exercise science program requiring accommodation should begin this process at the time of status change.
- 4. Due to the time it takes to properly evaluate a student's needs and to implement reasonable accommodations, it is recommended that students request accommodations as early as possible. While it is possible that need for reasonable accommodation may arise unexpectedly, it is preferable to make a request for accommodation at least 30 days before the start of a course or internship.

## The Major for the B.S. in Exercise Science

Code	Title	Credit Hours
PSYC 100	General Psychology	3
BIOL 233	Human Physiology & Anatomy I	4
BIOL 234	Human Physiology & Anatomy II	4
EXSC 200	Health Promotion	3
EXSC 201	First Aid	3
EXSC 220	Basic Nutrition Science	3

EXSC 350W	Research Methods	3	
EXSC 260	Strength Training	2	
EXSC 298	Group Exercise Instruction	3	
EXSC 351	Kinesiology	3	
EXSC 352	Physiology of Exercise	3	
EXSC 360	Psychology of Sport and Exercise, Sports Psychology	3	
EXSC 380	Sports Nutrition	3	
EXSC 395	Exercise Science Testing Lab		
EXSC 411	Cardiovascular Physiology and Pathophysiology	hophysiology 3	
EXSC 451	Professional Development in Exercise Science,Professional Development in Exercise Science and Risk Management	1	
EXSC 453	Exercise Prescription and Rehabilitation	3	
EXSC 465	Exercise for Special Health Populations	3	
EXSC 495	Internship	3-12	
Total Credit Hours		56-65	

Students pursuing the undergraduate course requirements for physical therapy or occupational therapy graduate programs can do so in the exercise science major. Most of these programs admit students to a 2-3 year graduate program. Admission to these programs is competitive, requiring a minimum grade-point average of 3.0. Students should consult the schools to which they are applying for exact required courses. Most graduate programs require these additional courses:

- · English Composition
- Statistics
- Calculus
- · Physics (one year)
- General Biology (one year)
- Biology (one additional class with lab)
- · Chemistry (one year)
- · Physics (one year)
- · Psychology (lifespan or abnormal)
- Sociology (some programs accept instead of psychology requirement)
- · Internship or work experience in the field

Students pursuing an undergraduate preparation for physician assistant programs can do so in the exercise science major. Most of these programs admit students to a 2-3 year graduate program. Admission to these programs is competitive, requiring a minimum grade-point average of 3.0. Students should consult the schools to which they are applying for exact required courses. Most graduate programs require these additional courses:

- · Medical Terminology
- Statistics
- · Additional Biology (1 more general, micro-, genetics)
- · Chemistry (one year)
- Sociology
- Internship or work experience in the field

# The Major for the B.A. in Health Science

Code	Title	Credit Hours
PSYC 100	General Psychology	3
BIOL 233	Human Physiology & Anatomy I	4
BIOL 234	Human Physiology & Anatomy II	4
EXSC 200	Health Promotion	3
EXSC 201	First Aid	3
EXSC 220	Basic Nutrition Science	3
EXSC 240	Medical Terminology	3
PHIL 215	Introduction to Medical Ethics	3
EXSC 350W	Research Methods	3
HLSC 325	Health & Disease	3
HLSC 445	Professional Development in Health Science	3
HLSC 495	Internship in Health Science	3
Select two of the following electives:		
ATTR 301	Care and Prevention of Athletic Injuries	
EXSC 310	Aging, Health and Physical Activity	
EXSC 351	Kinesiology	
EXSC 360	Psychology of Sport and Exercise, Sports Psychology	
EXSC 380	Sports Nutrition	
PSYC 301	Psychopathology	

Total Credit Hours 44