BACHELOR OF SCIENCE WITH A MAJOR IN EXERCISE SCIENCE, STRENGTH AND CONDITIONING CONCENTRATION

Program Director: Matthew Barberio

The bachelor of science (BS) in exercise science with a concentration in strength and conditioning allows students to gain knowledge and skills to facilitate evidence-based practice in health and human performance. Comprehensive instruction is provided in sports performance training theory and techniques, while broader instruction in anatomy and physiology, sports psychology, exercise physiology, sports nutrition, and kinesiology lay foundational multidisciplinary knowledge. Students also gain practical training and assessment experience through applied laboratory coursework in addition to an athletic or human performance internship. Ultimately, this coursework helps prepare students for the National Strength and Conditioning Association's Certified Strength and Conditioning Specialist exam upon graduation.

Visit the program website (https://publichealth.gwu.edu/programs/exercise-science-bs/) for additional information.

ADMISSIONS

Information on the admission process is available on the Office of Undergraduate Admissions website (https://undergraduate.admissions.gwu.edu/). Applications can be submitted via the Common Application (https://go.gwu.edu/commonapp/).

Supporting documents not submitted online should be mailed to:

Office of Undergraduate Admissions
The George Washington University
800 21st Street NW, Suite 100
Washington, DC 20052

Contact for questions:
gwadm@gwu.edu or 202-994-6040

Current GW students who wish to declare one of the SPH majors should visit the school's undergraduate admissions (https://publichealth.gwu.edu/admissions/undergraduate-admissions/) website.

REQUIREMENTS

The following requirements must be fulfilled: 120 total credits, including 26 credits in University General Education Requirement courses, 39 credits in exercise science core courses, 27 credits in required concentration coursework, 14 credits in approved guided elective courses, and 14 credits in general elective courses.

Code	Title	Credits
SPH University General Education Requirement		
One course in critical thinking in the humanities.		
Two courses in critical thinking, quantitative reasoning, or scientific reasoning in the social sciences.		
For exercise science and nutrition majors, this requirement must be fulfilled with one of the following: ANTH 1002, ANTH 1003, or ANTH 1004.		
For public health majors, students are encouraged to take ECON 1011 as a General Education social science course, as it is a prerequisite for PUBH 3130.		
One course that has an approved oral communication component .		
For exercise science and nutrition majors, this requirement must be fulfilled with either COMM 1040 or COMM 1041.		
For public health majors, students can chose any of the following pre-approved oral communication courses: AMST 2450, AMST 2620, ANTH 1004, ANTH 2502, CHEM 2118W, COMM 1040, COMM 1041, EAP 1010, ECON 4198W, ENGL 1365, ENGL 3918, GTCH 2003, GTCH 3101, HSSJ 4195, ORSC 2000, PHIL 2124 or PHIL 2124W, PHIL 2134, SLHS 1011, SOC 4192, SOC 4195 or SOC 4195W, SPAN 3022, SUST 2004, WLP 1020		
One course in quantitative reasoning.		
For exercise science and nutrition majors, this requirement must be fulfilled with one of the following: STAT 1051, STAT 1053, or STAT 1127.		
Public health majors should avoid taking STAT 1051, STAT 1053, STAT 1111 or STAT 1127.		
One course in scientific reasoning with laboratory experience.		
For exercise science and nutrition majors, this requirement must be fulfilled with BISC 1111.		
For public health majors, this requirements must be fulfilled with one of the following: BISC 1005, BISC 1006, BISC 1007, BISC 1008, BISC 1111, BISC 1112 or HONR 1033 Biology.		
UW 1020	University Writing	
or HONR 1015 (Origins and Evolution of Modern Thought)		
After successful completion of UW 1020 or HONR 1015, 6 credits distributed over at least two different Writing in the Disciplines (WID) courses taken in separate semesters (summer counts as one semester) are required. WID courses are designated by a "W" appended to the course number.		

Approved courses can be found under University General Education Requirement (http://bulletin.gwu.edu/university-regulations/general-education/).

Required exercise science core courses

39 credits in core exercise science courses are required. Students must maintain a minimum grade-point average of 2.5 in the exercise science core requirements with a minimum grade of *C-* in each core course.

Code	Title	Credits
EXNS 1103	Professional Foundations in Exercise Science *	
EXNS 2116	Exercise and Health Psychology	
EXNS 2119	Introduction to Nutrition Science	
EXNS 2210	Applied Anatomy and Physiology I	
EXNS 2211	Applied Anatomy and Physiology II	
EXNS 3110	Field Experience in Exercise and Nutrition Sciences (2 credits)	
EXNS 3111W	Exercise and Nutrition Sciences Research Methods	
EXNS 3311	Exercise Physiology I	
EXNS 3312	Exercise Physiology II	
EXNS 3313	Kinesiology	
PSYC 1001	General Psychology	
PUBH 1010	First-Year Experience in Public Health	
PUBH 1101	Introduction to Public Health and Health Services	

*Students who have taken EXNS 1109 Professional Foundations in Nutrition should not take EXNS 1103. EXNS 1109 will count toward the EXNS 1103 requirement.

Code	Title	Credits
Required concentration courses		
27 credits in required concentration-specific courses.		
EXNS 1117	Principles of Coaching	
EXNS 2117	Sport Psychology	
EXNS 2118	Sport and Nutrition	
EXNS 3110	Field Experience in Exercise and Nutrition Sciences (4 credits)	
EXNS 3123W	Psychology of Injury and Rehabilitation	
EXNS 3328	Scientific Principles of Strength and Conditioning	
EXNS 4103	Training and Conditioning Program Design and Application I	
EXNS 4104	Training and Conditioning Program Design and Application II	

Electives

28 credits in elective courses, including 14 credits in guided electives, selected from the list below in consultation with the advisor, and 14 credits in general electives. General electives can be selected from the list of guided electives or they can be any other undergraduate course taken at GW.

Note: No more than 3 credits of Lifestyle, Sport, and Physical Activity (LSPA) courses can count toward the 120 credits required for the bachelor's degree.

EXERCISE SCIENCE GUIDED ELECTIVES

The courses listed below have been identified as highly relevant to the BS in exercise science curriculum. Guided elective courses must be selected from this list. Courses on this list also can be used as general electives.

Note that courses offered online can only be taken in the summer term.

Code	Title	Credits
Anthropology		
ANTH 1005	The Biological Bases of Human Behavior	
ANTH 2502	Anthropology of Science and Technology: Twenty-First Century Brave New Worlds	
ANTH 3413	Evolution of the Human Brain	
ANTH 3504	Illness, Healing, and Culture	
Biochemistry		
BIOC 3261	Introductory Medical Biochemistry	
BIOC 3262	Biochemistry Laboratory	
BIOC 3560	Diet, Health, and Longevity	
Biological sciences		
BISC 1112	Introductory Biology: The Biology of Organisms	
BISC 2202	Cell Biology	

BISC 2207	Genetics
BISC 2208	Genetics Laboratory
BISC 2213	Biology of Cancer
BISC 2214	Developmental Biology
BISC 2220	Developmental Neurobiology
BISC 2320	Neural Circuits and Behavior
BISC 2322	Human Physiology
BISC 2336	Introductory Microbiology
BISC 2337	Introductory Microbiology Laboratory
BISC 2337W	Introductory Microbiology
BISC 2581	Human Gross Anatomy
BISC 3122	Human Physiology
BISC 3123	Human Physiology Lab
BISC 3165	Biochemistry I
BISC 3166	Biochemistry II
BISC 3209	Molecular Biology
BISC 3208	Molecular Biology Laboratory
BISC 3261	Introductory Medical Biochemistry
BISC 3262	Biochemistry Laboratory
BISC 3263	Special Topics in Biochemistry
BISC 3320	Human Neurobiology
Chemistry	
CHEM 1111	General Chemistry I
CHEM 1112	General Chemistry II
CHEM 2151	Organic Chemistry I
CHEM 2153	Organic Chemistry Laboratory I
CHEM 2152	Organic Chemistry II
CHEM 2154	Organic Chemistry Laboratory II
CHEM 3165	Biochemistry I
CHEM 3166	Biochemistry II
or CHEM 3166W	Biochemistry II
CHEM 3262	Biochemistry Laboratory
CHEM 3263W	Special Topics in Biochemistry
Emergency health services	
EHS 1002	CPR and First Aid
EHS 1040	Emergency Medical Technician
EHS 1041	Emergency Medical Technician Laboratory
EHS 1058	EMT Instructor Development
EHS 2108	Emergency Medicine Clinical Scribe
EHS 2110	Emergency Department Critical Care Assessment and Procedures
Exercise and nutrition sciences	
EXNS 1112	Current Issues in Coaching
EXNS 1113	Medical Terminology
EXNS 1114	Community Nutrition
EXNS 1117	Principles of Coaching
EXNS 1119W	Children and Sport
EXNS 1199	Topics in Exercise and Nutrition Sciences
EXNS 2110	Injury Prevention and Control
EXNS 2117	Sport Psychology
or EXNS 2117W	Sport Psychology
EXNS 2118	Sport and Nutrition
EXNS 2120	Assessment of Nutritional Status
EXNS 2121	Orthopedic Taping and Bracing
EXNS 2122	Food Systems in Public Health
EXNS 2123	Nutrition and Chronic Disease
EXNS 2124	Lifecycle Nutrition
EXNS 2126W	International Nutrition
EXNS 3101	Independent Study **
EXNS 3102	Applied Sport Psychology
EXNS 3110	Field Experience in Exercise and Nutrition Sciences (beyond the 2 credits required)
EXNS 3114W	Cultivating Food Justice in Urban Food Systems
EXNS 3117	Injury Assessment
EXNS 3118	Therapeutic Modalities in Sports Medicine

EXNS 3119	Therapeutic Exercise in Sports Medicine
EXNS 3121	Medical Issues in Sports Medicine
EXNS 3123W	Psychology of Injury and Rehabilitation
EXNS 3328	Scientific Principles of Strength and Conditioning
EXNS 3995	Undergraduate Research **
EXNS 4103	Training and Conditioning Program Design and Application I
EXNS 4104	Training and Conditioning Program Design and Application II
EXNS 4199	Advanced Topics in Exercise and Nutrition Sciences (Metabolism in Exercise and Nutrition Sciences only)
Health and wellness	
HLWL 1101	Special Topics
HLWL 1102	Stress Management
HLWL 1106	Drug Awareness
HLWL 1108	Weight and Society
HLWL 1109	Human Sexuality
HLWL 1114	Personal Health and Wellness
HLWL 1117	Lifetime Fitness
Health sciences	
HSCI 2100	Writing and Composition in the Health Sciences
HSCI 2101	Psychosocial Aspects of Health and Illness
HSCI 2102	Pathophysiology
HSCI 2110	Disease Prevention and Health Promotion Concepts
HSCI 2112	Writing in the Health Sciences
or HSCI 2112W	Writing in the Health Sciences
HSCI 2117	Introduction to Statistics for Health Sciences
Physics	
PHYS 1011	General Physics I
PHYS 1012	General Physics II
Psychology	
PSYC 2011	Abnormal Psychology
or PSYC 2011W	Abnormal Psychology
PSYC 2013	Developmental Psychology
PSYC 2014	Cognitive Psychology
PSYC 2015	Biological Psychology
PSYC 2570	Peer Education
PSYC 2571	Helping Skills
PSYC 3128	Health Psychology
Public health	
PUBH 1102	History of Public Health
PUBH 2110	Public Health Biology
PUBH 2112	Principles of Health Education and Health Promotion
PUBH 2113	Impact of Culture upon Health
PUBH 2117	Service Learning in Public Health
PUBH 2142	Introduction to Biostatistics for Public Health
PUBH 3130	Health Services Management and Economics
PUBH 3131	Epidemiology
PUBH 3135W	Health Policy
PUBH 3151W	Current Issues in Bioethics
PUBH 3995	Undergraduate Research in Public Health **

**Students can apply up to 3 credits in EXNS 3101 Independent Study and/or PUBH 3995 Undergraduate Research in Public Health toward the major. These courses must be taken for a letter grade; if graded on a Pass/No Pass (*P/NP*) basis, they cannot be counted toward major requirements.