

# BACHELOR OF SCIENCE WITH A MAJOR IN EXERCISE SCIENCE (STEM)

Program Director: M. Barberio

The bachelor of science with a major in exercise science degree program prepares individuals for careers in medicine and other health-related professions including athletic training/sports medicine, physical therapy, physician's assistant or nursing, exercise physiology and rehabilitation, sport psychology, strength and conditioning, as well as fitness and health promotion.

Students in the exercise science major may select the pre-medical professional concentration (<http://bulletin.gwu.edu/public-health/exercise-science/bs/pre-medical/>) (for those planning to enter a medical, physician assistant, or nursing program upon graduation), the pre-physical therapy concentration (<http://bulletin.gwu.edu/public-health/exercise-science/bs/pre-physical-therapy/>), the pre-athletic training/sports medicine concentration (<http://bulletin.gwu.edu/public-health/exercise-science/bs/pre-athletic-training/>), and the strength and conditioning concentration (<http://bulletin.gwu.edu/public-health/exercise-science/bs/concentration-strength-conditioning/>). The exercise science major may also be taken without a (p. 1)concentration.

This is a STEM designated program.

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 may 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](mailto:gwadm@gwu.edu) or 202-994-6040

## REQUIREMENTS

The following requirements must be fulfilled: 124 total credits, including 26 credits in University General Education Requirement, 39 credits in core exercise science requirements, 41 credits in approved guided elective courses, and 18 credits in additional general electives.

Code	Title	Credits
<b>University General Education Requirement</b>		
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, must be satisfied with one of the following: ANTH 1002, ANTH 1003, or ANTH 1004.		
One course that has an approved oral communication component, For exercise science and nutrition majors, must be satisfied with either COMM 1040 or COMM 1041.		
One course in quantitative reasoning. For exercise science and nutrition majors, must be satisfied with one of the following: STAT 1051, STAT 1053, or STAT 1127.		
One course in scientific reasoning with laboratory experience. For exercise science and nutrition majors, must be satisfied with BISC 1111.		
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 ( <a href="http://bulletin.gwu.edu/university-regulations/general-education/">http://bulletin.gwu.edu/university-regulations/general-education/</a> ).		
Code	Title	Credits
<b>Required exercise science core courses</b>		
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.		
PUBH 1010	First-Year Experience in Public Health	
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 3311	Exercise Physiology I	
EXNS 3312	Exercise Physiology II	

EXNS 3313	Kinesiology
EXNS 3110	Field Experience in Exercise and Nutrition Sciences (2 credits)
EXNS 3111W	Exercise and Nutrition Sciences Research Methods
PUBH 1101	Introduction to Public Health and Health Services
PSYC 1001	General Psychology
ANTH 1002	Sociocultural Anthropology *
or ANTH 1003	Archaeology
or ANTH 1004	Language in Culture and Society
BISC 1111	Introductory Biology: Cells and Molecules *
COMM 1040	Public Communication *
or COMM 1041	Interpersonal Communication
STAT 1051	Introduction to Business and Economic Statistics (Note: PUBH 2142 does not count toward the General Education requirement) *
or STAT 1053	Introduction to Statistics in Social Science
or STAT 1127	Statistics for the Biological Sciences
or PUBH 2142	Introduction to Biostatistics for Public Health

### Electives

41 credits in approved guided electives (below), selected in consultation with the advisor, and 18 credits in general electives.

\* The ANTH, BISC, COMM, and STAT courses meet General Education requirements; however, while required, they do not count toward the 39 credits in exercise science core courses. PUBH 2142 does not count toward the General Education requirement, but it does count as an exercise science core course.

Note: No more than 3 credits of Lifestyle, Sport, and Physical Activity (LSPA) courses may count toward the 124 credits required for the bachelor's degree.

Code	Title	Credits
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### Exercise science guided electives

The courses listed below have been identified as highly relevant to the BS with a major in exercise science curriculum.

Anthropology

ANTH 1005	The Biological Bases of Human Behavior
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ANTH 2502	Anthropology of Science and Technology: Twenty-First Century Brave New Worlds
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ANTH 3413	Evolution of the Human Brain
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ANTH 3504	Illness, Healing, and Culture
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### Biochemistry

BIOC 3261	Introductory Medical Biochemistry
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BIOC 3262	Biochemistry Laboratory
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BIOC 3560	Diet, Health, and Longevity
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### Biological sciences

BISC 1112	Introductory Biology: The Biology of Organisms
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BISC 2202	Cell Biology
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BISC 2207	Genetics
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BISC 2208	Genetics Laboratory
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BISC 2213	Biology of Cancer
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BISC 2214	Developmental Biology
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BISC 2220	Developmental Neurobiology
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BISC 2320	Neural Circuits and Behavior
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BISC 2322	Human Physiology
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BISC 2336	Introductory Microbiology
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BISC 2337	Introductory Microbiology Laboratory
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BISC 2337W	Introductory Microbiology
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BISC 2581	Human Gross Anatomy
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BISC 3122	Human Physiology
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BISC 3123	Human Physiology Lab
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BISC 3165	Biochemistry I
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BISC 3166	Biochemistry II
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BISC 3209	Molecular Biology
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BISC 3208	Molecular Biology Laboratory
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BISC 3261	Introductory Medical Biochemistry
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BISC 3262	Biochemistry Laboratory
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BISC 3263	Special Topics in Biochemistry
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BISC 3320	Human Neurobiology
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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 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 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 3130	Health Services Management and Economics
PUBH 3131	Epidemiology
PUBH 3135W	Health Policy
PUBH 3151W	Current Issues in Bioethics

\*\* Courses offered online may only be taken in the summer term.