

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 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 |
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| 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, 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 (http://bulletin.gwu.edu/university-regulations/general-education/). | | |
| Code | Title | Credits |
| Required exercise science core courses | | |
| 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 | |

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| 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

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| 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

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| 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

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| 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 |

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| 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 ** |

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| 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.