Milken Institute School of Public Health

Department of Exercise and Nutrition Sciences

THE GEORGE WASHINGTON UNIVERSITY

Bachelor of Science in Exercise Science 2018 – 2019

Undergraduate Program Director

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Note: All curriculum revisions will be updated immediately on the website http://publichealth.gwu.edu.

Program Mission Statement

The mission of the Bachelor of Science (BS) in Exercise Science (EXSC) program is to advance the scientific basis of the benefits of regular physical activity and proper nutrition to health and function throughout the life-span. The BS in EXSC program trains students in the science and practice of exercise, physical activity, and health in the greater context of public health by developing critical thinking skills and fostering life-long learning.

Careers

The BS in Exercise Science prepares students for professional careers in the field and for entrance into professional graduate programs:

- Medicine (Physician Assistant, Nursing, Physician)
- Physical Therapy
- Nutrition
- Corporate Fitness and Wellness Programs
- Personal Training
- Exercise Rehabilitation
- Coaching
- Sport Psychology
- Health Promotion
- Other health and public health professions

Degree Requirements

All students accepted to the BS with a major in Exercise Science complete 124 credit hours and maintain a minimum 2.5 grade point average in the core Exercise Science courses. In addition students must earn a minimum of a C- in each exercise science core course. There are four levels of requirements for the BS with a major in Exercise Science: University general education requirements, Exercise Science core requirements, guided electives, and general electives. General education requirements are taken by all University undergraduate students and form the liberal arts education component of the BS degree with a major in Exercise Science. Students with a declared concentration must meet the requirements for the concentration in addition to the four levels of requirements listed above.

PROGRAM-AT-A-GLANCE 2018-2019 DEPARTMENT OF EXERCISE and NUTRITION SCIENCES BACHELOR OF SCIENCE in EXERCISE SCIENCE

	University General Education Requirements (GenEd) Courses(See University Bulletin for GenEd's under University Regulations)Credits	
University Writing	UW 1020 UNIVERSITY WRITING OR HONR 1015	4
WID	TWO WID COURSES; These may also be counted in another category	6
Humanities	ONE COURSE IN HUMANITIES http://bulletin.gwu.edu/university-regulations/general-education/	3
Mathematics or Statistics*	ONE COURSE IN EITHER MATH OR STATISTICS Can be satisfied with STAT 1051 or STAT 1053 or STAT 1127 (required for the BS in Exercise Science)	3
Science*	ONE NATURAL OR PHYSICAL SCIENCE COURSE WITH LABORATORY EXPERIENCE Can be satisfied with BISC 1115/1125 which is required for the BS in Exercise Science	4
Social Science*	TWO COURSES IN THE SOCIAL SCIENCES http://bulletin.gwu.edu/university-regulations/general-education/	6
	TOTAL GenEd	26

Exercise Science Core

	Exercise Science Core Courses (same for all concentrations)						
EXNS 1103	Professional Foundations in Exercise Science	1		EXNS 3110	Field Experience	4	
EXNS 1110	Applied Anatomy & Physiology I & Lab	4		EXNS 4110	Current Issues in EXNS	3	
EXNS 1111	Applied Anatomy & Physiology II & Lab	4		PUBH 1101	Introduction to Public Health	3	
EXNS 2111	Exercise Physiology I & Lab	4		PSYC 1001	General Psychology	3	
EXNS 2112	Exercise Physiology II & Lab	4		BISC 1115 and BISC 1125** ^G	Intro Biology: Cells & Molecules		
EXNS 2113	Kinesiology	4		STAT ^{*G}	1051 or 1053 or 1127		
EXNS 2116	Exercise and Health Psychology	3		COMM* ^G	1040 or 1041 (satisfies Social Science & Oral Communication requirement)		
EXNS 2119	Introduction to Nutrition Sciences	3		ANTH* ^G	1002, 1003, 1004 (satisfies Social Science & Global/Cross Cultural Perspective requirement)		
	Total Exercise Science Core Requirements (*G = excluding GenEd requirements) 4 Students must maintain/earn a minimum of 2.5 GPA in the Exercise Science Core Courses and earn at a C- or better in each course to graduate 4						

Concentration Requirements:

No Concentration

BS Exercise Students-No Concentration-Must Fulfill the Following Degree Requirements	
All General Education Requirements (GenEd) & WID Courses	26 Credits
 All Core Exercise Science Requirements C- or better required in core Exercise Science courses 	40 Credits
 Guided Electives Planned with Advisor Please see the "Guided Electives" worksheet for a list of approved courses 	40 Credits
> General Electives	18 Credits
Total Exercise Science Core Requirements (not including GenEd requirements)	124

Pre-Athletic Training/Sports Medicine Concentration

Pre-Athletic Training/Sports Medicine Concentration Requirements						
EXNS 2110	Injury Prevention and Control	3		EXNS 3119	Therapeutic Exercise	4
EXNS 2121	Orthopedic Taping and Bracing	1		EXNS 3121	Medical Issues in Sports Medicine	3
EXNS 3117	Injury Assessment	4		EXNS 3123W	Psychology of Injury and Performance	3
EXNS 3118	Therapeutic Modalities	4		EXNS 3125	Athletic Training Practicum	3
Total Concentration Requirements						25

BS Exercise Students-Pre-Athletic Training/Sports Medicine-Must Fulfill the Following Degree Requirement						
All General Education Requirements (GenEd) & WID Courses	26 Credits					
 All Core Exercise Science Requirements C- or better required in core Exercise Science courses 	40 Credits					
Pre-Athletic Training/Sports Medicine Concentration Requirements	25 Credits					
 Guided Electives Planned with Advisor Please see the "Guided Electives" worksheet for a list of approved courses 	15 Credits					
General Electives	18 Credits					
Total Exercise Science Core Requirements (not including GenEd requirements)	124					

	Pre-Medical Professionals Concentration Requirements							
BISC 1116 and BISC 1126	Intro Biology: The Biology of Organisms	4		$MATH \ge 1220^{*G}$	Calculus with Precalculus I (or higher level MATH)	3		
CHEM 1111	General Chemistry I	4		PHYS 1011	General Physics I	4		
CHEM 1112	General Chemistry II	4						
CHEM 2151	Organic Chemistry I	3		PHYS 1012	General Physics II	4		

Pre-Medical Professional Concentration

CHEM 2153	Organic Chemistry I Lab	1			
CHEM 2152	Organic Chemistry II	3			
CHEM 2154	Organic Chemistry II Lab	1			
Total Exercise Science Core Requirements (not including GenEd requirements)				31	

BS Exercise Students-Pre-Medical Professionals Concentration-Must Fulfill the Following Degree Requirement						
 All General Education Requirements (GenEd) & WID Courses 	26 Credits					
 All Core Exercise Science Requirements C- or better required in core Exercise Science courses 	40 Credits					
Pre-Medical Professionals Concentration Requirements	31 Credits					
 Guided Electives Planned with Advisor Please see the "Guided Electives" worksheet for a list of approved courses 	9 Credits					
General Electives	18 Credits					
Total Exercise Science Core Requirements (not including GenEd requirements)	124					

Pre-Physical Therapy Concentration

	Pre-Physical Therapy Concentration Requirements					
BISC 1116 and BISC 1126	Intro Biology: The Biology of Organisms	4		PHYS 1011	General Physics I	4
CHEM 1111	General Chemistry I	4		PHYS 1012	General Physics II	4
CHEM 1112	General Chemistry II	4		PSYC 2013 or PSYC 2011	Developmental Psychology OR Abnormal Psychology	3
MATH =/> 1220	Calculus or pre-calculus I (or higher level math	3				
	Total Exercise Science Core Requirements (not including GenEd requirements) 2					

BS Exercise Students-Pre-Physical Therapy Concentration-Must Fulfill the Following Degree Requireme	ents
All General Education Requirements (GenEd) & WID Courses	26 Credits
 All Core Exercise Science Requirements C- or better required in core Exercise Science courses 	40 Credits
Pre-Physical Therapy Concentration Requirements	26 Credits
 Guided Electives Planned with Advisor Please see the "Guided Electives" worksheet for a list of approved courses 	14 Credits
General Electives	18 Credits
Total Exercise Science Core Requirements (not including GenEd requirements)	124

EXERCISE SCIENCE GUIDED ELECTIVES 2018-2019

ANTHROPOLOGY

ANTH 1005	Biological Bases of Human Behavior	4
ANTH 2502	Anthropology of Science and Technology: Twenty-First-Century Brave New Worlds	3
ANTH 3413	Evolution of the Human Brain	3
ANTH 3504	Illness, Healing, and Culture	3

BIOCHEMISTRY

BIOC 3261	Intro Medical Biochemistry	4
BIOC 3560	Diet, Health, & Longevity	3

BIOLOGICAL SCIENCES

BISC 1116	Intro Biology: The Biology of Organisms	3
BISC 1126	Intro Biology-lab for BISC 1116	1
BISC 2202	Cell Biology	3
BISC 2207	Genetics	3
BISC 2213	Biology of Cancer	3
BISC 2214	Developmental Biology	3
BISC 2220	Developmental Neurobiology	3
BISC 2318	Histology	4
BISC 2320	Neural Circuits & Behavior	3
BISC 2322	Human Physiology	3
BISC 2323	Human Physiology Lab	1
BISC 2337 or	Introductory Microbiology	4
BISC 2337W		
BISC 2580 or	Biotechnology	3
BISC 2580W		
BISC 2581	Human Gross Anatomy	3
BISC 3165	Biochemistry I	3
BISC 3166	Biochemistry II	3
BISC 3209	Molecular Biology	3
BISC 3261	Introductory Medical Biochemistry	4
BISC 3262	Biochemistry Lab	2
BISC 3263 or	Special Topics in Biochemistry	2
BISC 3263W		
BISC 3320	Human Neurobiology	3

CHEMISTRY

General Chemistry I	4
General Chemistry II	4
Organic Chemistry I	3
Organic Chemistry I Lab	1
Organic Chemistry II	3
Organic Chemistry II Lab	1
Biochemistry I	3
Biochemistry II	3
Biochemistry Lab	2
Special Topics in Biochemistry	2
	General Chemistry II Organic Chemistry I Organic Chemistry I Lab Organic Chemistry II Organic Chemistry II Dorganic Chemistry II Lab Biochemistry I Biochemistry II

EMERGENCY HEALTH SERVICES

EHS 1002	CPR & First Aid	1
EHS 1040	EMT Basic	3
EHS 1041	EMT Basic Lab	1
EHS 1058	EMT Instructor Development	2
EHS 2108	Emergency Medical Clinical Scribe	3
EHS 2110	Emergency Department Critical Care Assessment and Procedures	4

EXERCISE & NUTRITION SCIENCES

Current Issues in Coaching	3
Community Nutrition	3
Principles of Coaching (2 different courses)	3
Sport Nutrition	3
Children and Sport	3
Topics in EXNS	3
Injury Prevention and Control	3
Sport Psychology	3
Orthopedic Taping & Bracing	1
Assessment of Nutritional Status	3
Food Systems in Public Health	3
Independent Study	3
Applied Sport Psychology	3
Injury Assessment	4
Therapeutic Modalities in Sports Med.	4
Therapeutic Exercise in Sports Medicine	4
Medical Issues in Sports Medicine	3
Psychology of Injury and Performance	3
	Community Nutrition Principles of Coaching (2 different courses) Sport Nutrition Children and Sport Topics in EXNS Injury Prevention and Control Sport Psychology Orthopedic Taping & Bracing Assessment of Nutritional Status Food Systems in Public Health Independent Study Applied Sport Psychology Injury Assessment Therapeutic Modalities in Sports Med. Therapeutic Exercise in Sports Medicine Medical Issues in Sports Medicine

HEALTH & WELLNESS

Special Topics	1-3
Stress Management	3
Issues in Men's Health	3
Outdoor & Environmental Education	3
Yoga & the Meaning of Life	3
Drug Awareness	3
Weight & Society	3
Human Sexuality	3
Issues in Alternative Medicine	3
Issues in Women's Health	3
Personal Health & Wellness	3
Functional Fitness	3
	Stress Management Issues in Men's Health Outdoor & Environmental Education Yoga & the Meaning of Life Drug Awareness Weight & Society Human Sexuality Issues in Alternative Medicine Issues in Women's Health Personal Health & Wellness

HEALTH SCIENCES

HSCI 2101	Psychological Aspects of Health (Residential and Online)	3
HSCI 2102	Pathophysiology (ONLINE ONLY)	3
HSCI 2110	Disease Prevention/Health Promotion (ONLINE ONLY)	3

HSCI 2117	Introduction to Statistics for the Health Sciences (ONLINE ONLY)	3
HSCI 2112W	Writing in the Health Sciences (ONLINE ONLY)	3

PHYSICS

PHYS 1011	General Physics I	4
PHYS 1012	General Physics II	4

PSYCHOLOGY

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	PSYC 2011 or	Abnormal Psychology	3
	PSYC 2011W		
	PSYC 2013	Developmental Psychology	3
	PSYC 2014	Cognitive Psychology	3
	PSYC 2015	Biological Psychology	3
	PSYC 2570	Peer Education	3
	PSYC 3128	Health Psychology	3

PUBLIC HEALTH

PUBH 1102	History of Public Health	3
PUBH 2110	Public Health Biology	3
PUBH 2112	Principles of Health Education and Health Promotion	3
PUBH 2113	Impact of Culture Upon Health	3
PUBH 2116	Global Delivery of Health Systems	3
PUBH 2117	Service Learning in Public Health	3
PUBH 3130	Health Services Management and Economics	3
PUBH 3131	Epidemiology: Measuring Health and Disease	3
PUBH 3135W	Health Policy	3
PUBH 3137	Global Public Health Nutrition	3
PUBH 3151	Current Issues in Bioethics	3