

EXERCISE AND SPORT SCIENCE (B.S.)

The Exercise and Sport Science degree provides students with a scientific-based curriculum for improving human performance and wellness, and is an ideal preparation for successful entry into a variety of graduate professional programs such as nursing, occupational therapy, physician assistant, physical therapy, athletic training, or medical school.

Students develop application skills for sport and fitness activities, assessment and evaluation of various populations and fitness levels, and human movement systems from all of the subdisciplines of kinesiology (e.g., exercise physiology, exercise and physical activity psychology, motor learning and development, biomechanics, and others). Career options include corporate wellness, exercise physiologist, cardiac rehabilitation, strength and condition coach, and a wide variety of therapeutic exercise and recreation positions.

Admission Requirements

Undergraduate students entering Wayne State University, either from high school or transferring from other accredited universities or colleges, are admitted directly into the bachelor's degree program.

Admission questions should be directed to the Division of Academic Services, College of Education, 489 Education, phone 313-577-1601.

Program Requirements

A student must complete all University General Education (<http://bulletins.wayne.edu/undergraduate/general-information/general-education/>) requirements, all College (<http://bulletins.wayne.edu/undergraduate/college-education/academic-regulations/>) and program requirements, and a minimum of 120 credits with a cumulative grade point average of 2.0 or higher to earn a bachelor's degree in the College of Education.

No grade below a "C" may be used to meet College requirements, electives, courses in the major and concentration, or courses in a College of Education minor. Note: All students must receive a "C" or higher in Basic and Intermediate Composition if these requirements are completed or transferred in Fall 2008 or thereafter.

Exercise and Sport Science Major

Code	Title	Credits
Exercise and Sport Science Requirements ^{1,2}		
PSY 1010 or PSY 1020	Introductory Psychology Elements of Psychology	3-4
BIO 2870	Anatomy and Physiology	5
BIO 1510 & BIO 1511	Basic Life Mechanisms and Basic Life Mechanisms Laboratory	4
PHY 1020 or PHY 2130 or PHY 2170	Conceptual Physics: The Basic Science Physics for the Life Sciences I University Physics I for Scientists and Engineers	4
CHM 1100 & CHM 1130 or CHM 1020	General Chemistry I and General Chemistry I Laboratory Survey of General Chemistry	4-5
Major Requirements (40 credits) ²		
KHS 1000	Contemporary Issues in Sport, Exercise, and Health Sciences	3
KIN 3000	Professional Perspectives in Kinesiology and Exercise Science	3

KIN 3400	Lifespan Growth and Development	3
KIN 3540	Cultural Foundations of Kinesiology	3
HE 3440 or NFS 2030	Nutrition and Health Education Nutrition and Health	3
HE 3500	Human Disease	3
KIN 3550	Motor Learning and Control	3
KIN 5523 or KIN 5520	Physical Activity and Exercise Psychology Sport Psychology	3
KIN 3580	Biomechanics	3
KIN 6300	Exercise Physiology I	3
KIN 6100 or KIN 6120	Methods of Group Training Strength and Conditioning	3
KIN 6320	Fitness Assessment and Exercise Prescription	3
KIN 5350	Exercise Science Internship	4

Elective Requirements (21 credits)

Complete a minimum of 21 semester credits of electives related to the field of Exercise and Sport Science.

- ¹ All courses in this list, except for BIO 2870, also satisfy the Natural Scientific Inquiry (NSI) requirement of the University's General Education Program.
- ² Students are responsible for satisfying the prerequisite and placement requirements prior to enrolling in the listed courses. See the individual courses or contact an advisor for more information.

Program Concentrations (optional)

Students may select a concentration from the list below. The concentration options in this section are designed to prepare students for successful admission into a professional healthcare graduate degree program and a successful career in any of the rapidly expanding allied health professions.

Students are responsible for satisfying any prerequisite(s) and placement requirements prior to enrolling in the listed courses. See the individual courses or contact an advisor for more information.

Pre-professional health sciences concentrations serve as a framework to assist students in their preparation for applications and successful admissions into graduate professional health sciences programs after graduation (e.g., Physical Therapy, Occupational Therapy, Physician Assistant, etc.). Concentrations may not reflect all of the required coursework for admissions into particular graduate professional health science programs, however, they provide students with an early advantage. Students need to verify with the graduate professional health science program they aspire to be admitted into after graduating with their bachelor's degree to determine all of the prerequisite courses that will be required for admission, as well as any additional non-academic requirements that may be required to be eligible for future admission.

Some of the courses in the pre-professional health sciences concentrations may have required prerequisite courses. Please verify the prerequisite course requirements of the pre-professional health sciences concentration you intend to complete during your B.S. in Exercise and Sport Science degree program.

Pre-Occupational Therapy

Code	Title	Credits
KIN 3580	Biomechanics	3
PSY 2400	Developmental Psychology	4
PSY 3310	Introduction to Psychopathology	4

Concentration courses below fulfill general education credits and are needed as prerequisites for the admission to the OT graduate/professional degree program.		
COM 1010	Oral Communication: Basic Speech	3
PS 1010	American Government	4
PSY 1010	Introductory Psychology	4
STA 1020	Elementary Statistics	3
Social Inquiry course (cannot be satisfied using PS 1010)		3-4
Total Credits		28-29

Pre-Pathologists' Assistant

Code	Title	Credits
BIO 2270 & BIO 2271	Principles of Microbiology and Principles of Microbiology Lab	5
Organic Chemistry with Lab		5
Concentration courses below fulfill general education credits and are needed as prerequisites for the admission to the Pathologists' Assistant graduate degree program		
General Chemistry with Lab		5
ENG 1020	Introductory College Writing	3
MAT 1000 or above OR STA 1020		3-4
Total Credits		21-22

Pre-Pharmacy

Code	Title	Credits
BIO 2270 & BIO 2271	Principles of Microbiology and Principles of Microbiology Lab	5
CHM 1140 & CHM 1150	General Chemistry II and General Chemistry II Laboratory	5
CHM 1240 & CHM 1250	Organic Chemistry I and Organic Chemistry I Laboratory	5
CHM 2220 & CHM 2230	Organic Chemistry II and Organic Chemistry II Laboratory	5
CHM 5600	Survey of Biochemistry	3
Concentration courses below fulfill general education credits and are needed as prerequisites for the admission to the Pharmacy graduate/professional degree program.		
CHM 1100 & CHM 1130	General Chemistry I and General Chemistry I Laboratory	5
ENG 1020	Introductory College Writing	3
COM 1010	Oral Communication: Basic Speech	3
MAT 2010	Calculus I	4
STA 1020	Elementary Statistics	3
PHY 2130 & PHY 2131	Physics for the Life Sciences I and Physics for the Life Sciences Laboratory	5
Total Credits		46

Pre-Physical Therapy

Code	Title	Credits
Chemistry (CHM) course		3
PHY 2140 & PHY 2141	Physics for the Life Sciences II and Physics for the Life Sciences Laboratory	5
Concentration courses below fulfill general education credits and are needed as prerequisites for the admission to the PT graduate/professional degree program.		
ENG 1020	Introductory College Writing	3
PHY 2130 & PHY 2131	Physics for the Life Sciences I and Physics for the Life Sciences Laboratory	5

STA 1020	Elementary Statistics	3
PSY 1010	Introductory Psychology	4
Chemistry (CHM) course with lab		4-5
Total Credits		27-28

Pre-Physician Assistant

Code	Title	Credits
BIO 2270 & BIO 2271	Principles of Microbiology and Principles of Microbiology Lab	5
CHM 1030	Survey of Organic/Biochemistry	4
PSY 2400	Developmental Psychology	4
Concentration courses below fulfill general education credits and are needed as prerequisites for the admission to the Physician Assistant graduate degree program.		
CHM 1020	Survey of General Chemistry	4
ENG 1020	Introductory College Writing	3
ENG 3010	Intermediate Writing	3
STA 1020	Elementary Statistics	3
NFS 2030	Nutrition and Health	3
Total Credits		29

The Bachelor of Science (B.S.) with a major in Exercise and Sport Science requires the completion of 21 credits of approved program electives. Students can use these electives to pursue university minors in certain areas or fulfill requirements for admission to a professional program. Other electives not listed can be approved by your assigned academic advisor.

Code	Title	Credits
HE 2310	Dynamics of Personal Health	3
HE 3300	Health of the School Child	3
HE 3440	Nutrition and Health Education	3
HE 5522	Health Psychology	3
HE 6310	Reproductive Health Education	3
HE 6320	Mental Health and Substance Abuse	3
HE 6330	Health Behavior Change	3
HPE 6400	Physical Activity in Pediatric Disabilities	3
HPE 6410	Teaching Adapted Physical Activity and Sport	3
HPE 6420	Teaching Aquatics to Special Populations	3
HPE 6430	Physical Activity Assessment in Special Populations	3
IE 3120	Work Design	3
KHS 6540	Workshop in Kinesiology, Health and Sport Studies	1-3
KIN 2560	Individual Problems in Kinesiology	1-3
KIN 5360	Senior Research Project	1-5
KIN 5520 or KIN 5523	Sport Psychology Physical Activity and Exercise Psychology	3
KIN 6120	Strength and Conditioning	3
KIN 6150	ECG Interpretation	3
KIN 6160	Pharmacology for the Physical Activity Professional	3
KIN 6210	Physical Activity and Cognition	3
KIN 6310	Exercise Physiology II	3
LFA 2330	First Aid and CPR	3
PSL 5010	Individual Research I	2-5
SAM 3010	Ethics in Sport	3
SAM 3020	Sociology of Sport	3

SAM 4020	Sport Governance	3
SAM 4030	Sport Finance	3
SAM 4040	Sport Communication	3
SAM 5510	Principles of Coaching	3
SAM 5700	Sport Leadership	3
Lifestyle Fitness Activity (LFA) Courses (4 Crs. maximum, excludes LFA 2330) *LFA 1020 cannot be used to meet elective credit		2-4
Business Courses (6 cr. maximum)		
MKT 2300	Marketing Management	
MGT 2530	Management of Organizational Behavior	
EI 5000	Introduction to Entrepreneurship and Innovation	
Psychology (PSY) Course(s) at the 2000+ level (8 Crs. maximum)		
Sociology (SOC) Course (4 Crs. maximum)		
Additional Nutrition & Food Science (NFS) Course (6 Crs. maximum, excludes NFS 2030)		
Pre-professional (21 Crs. maximum)		
BIO 1500	Basic Life Diversity	4
& BIO 1501	and Basic Life Diversity Laboratory	
BIO 2270	Principles of Microbiology	5
& BIO 2271	and Principles of Microbiology Lab	
BIO 2550	Fundamentals of Cell Biology for Neuroscience	4
BIO 2600	Introduction to Cell Biology	4
BIO 3100	Cellular Biochemistry	3
BIO 3200	Human Physiology	3
BIO 4630	Histology	4
CHM 1030	Survey of Organic/Biochemistry	4
CHM 1060	General, Organic and Biochemistry	5
CHM 1100	General Chemistry I	5
& CHM 1130	and General Chemistry I Laboratory	
CHM 1140	General Chemistry II	5
& CHM 1150	and General Chemistry II Laboratory	
CHM 1125	General Chemistry I for Engineers	3
CHM 1145	General Chemistry II for Engineers	3
CHM 1240	Organic Chemistry I	4
CHM 1250	Organic Chemistry I Laboratory	1
CHM 2220	Organic Chemistry II	4
CHM 2225	Organic Chemistry II for Engineers	3
CHM 2230	Organic Chemistry II Laboratory	1
CHM 5600	Survey of Biochemistry	3
MAT 2010	Calculus I	4
MLS 3330	Medical Terminology	1
OT/RT 5650	Pathophysiology for Health Sciences	3
PHY 2130	Physics for the Life Sciences I	5
& PHY 2131	and Physics for the Life Sciences Laboratory	
PHY 2140	Physics for the Life Sciences II	5
& PHY 2141	and Physics for the Life Sciences Laboratory	
PHY 2170	University Physics I for Scientists and Engineers	5
& PHY 2171	and University Physics I Experimental Laboratory	
PHY 2180	University Physics II for Scientists and Engineers	5
& PHY 2181	and University Physics II Experimental Laboratory	
PHY 2175	University Physics for Engineers I	4
PHY 2185	University Physics for Engineers II	4
STA 1020	Elementary Statistics	3
STA 2210	Probability and Statistics	4
Credits completed in an university minor		
Total Elective Credits 21+		

Exercise and Sport Science AGRADE Overview

The Division of Kinesiology, Health, and Sports Studies (KHS) in the College of Education offers degrees that focus on the broad careers of health, wellness, exercise, sport, and human performance. With programs in Athletic Training (AT), Community Health (CH), Exercise and Sport Science (ESS), Health and Physical Education Teaching (HPET), and Sport Administration and Management (SAM), KHS prepares students to excel in a range of health-related professions.

The Exercise and Sport Science AGRADE program is available to academically strong students completing B.S. degrees in Community Health; Exercise and Sport Science; Health and Physical Education Teaching; and Sport Management so they can begin a master's degree while simultaneously completing their bachelor's degree. Coursework taken during a student's senior year (up to 16 credits) can simultaneously qualify toward the bachelor's and master's degrees. In this case, after completing any bachelor's degree in this division, students would have also completed a substantial portion of the coursework required for the Master of Science in Exercise and Sport Science. This allows motivated students the opportunity to complete the requirements for both degrees in an accelerated format.

Our bachelor's programs typically have between 15-25 elective courses in their plans of work. This AGRADE program allows students to utilize graduate courses in Exercise and Sport Science to fulfill these elective requirements. Students, in consultation with their advisor, can select Exercise and Sport Science graduate courses that count toward the student's bachelor's and master's degrees. The graduate coursework completed while enrolled as an undergraduate is assessed at the undergraduate tuition rate, resulting in significant tuition savings.

Admission Criteria

Students may apply for the Exercise and Sport Science AGRADE program no earlier than the semester in which ninety credits are being completed. Applicants must have a minimum overall grade point average of 3.30. After admission, the AGRADE program requires a continuing undergraduate cumulative grade point average of at least a 3.30 and a grade of B or higher in Exercise and Sport Science master's coursework.

For more details about the Exercise and Sport Science AGRADE program, contact the Division of Academic Services.

Exercise and Sport Science AGRADE Advising

AGRADE advising is provided by the Division of Academic Services College of Education.

Eligible AGRADE Courses and Sequence

The following table outlines the Exercise and Sport Science master's courses that could be included in the undergraduate plan of work. Students may take up to a maximum of 16 credits from the following list. In addition, other courses may qualify as exceptions.

Code	Title	Credits
KIN 5100	Anatomical and Physiological Bases of Physical Activity	3
KIN 5523	Physical Activity and Exercise Psychology	3
KIN 6100	Methods of Group Training	3
KIN 6120	Strength and Conditioning	3
KIN 6300	Exercise Physiology I	3
KIN 6310	Exercise Physiology II	3

KIN 7580	Biomechanical Analysis of Motor Activity	3
KIN 8530	Motor Learning	3