

# EXERCISE SCIENCE - B.S.

**College of Education Health and Human Services**  
 School of Health Sciences  
 100 Nixson Hall  
 Kent Campus  
 330-672-2197  
 www.kent.edu/ehhs/hs

## Description

The Bachelor of Science degree in Exercise Science comprises three concentrations:

- The **Exercise Physiology** concentration prepares students for graduate school in exercise physiology or health care professions.
- The **Exercise Specialist** concentration enables students to prepare for work in the clinical setting, ranging from a career in wellness to cardiac rehabilitation.
- The **Pre-Physical/Occupational Therapy/Podiatric Medicine** concentration prepares students for subsequent graduate school in these areas. The pre-podiatric medicine track is designed to be a combined program with Kent State University's College of Podiatric Medicine. Successful completion of this program, however does not guarantee acceptance into the Doctor of Podiatric Medicine degree. Please see the Podiatric Medicine doctoral program in the catalog for more information about the application process and acceptance criteria.

### Fully Offered At:

- Kent Campus

## Accreditation

Commission on Accreditation of Allied Health Education Programs,  
 Committee on Accreditation for the Exercise Sciences

## Admission Requirements

The university affirmatively strives to provide educational opportunities and access to students with varied backgrounds, those with special talents and adult students who graduated from high school three or more years ago.

**Freshman Students on the Kent Campus:** The freshman admission policy on the Kent Campus is selective. Admission decisions are based upon the following: cumulative grade point average, ACT and/or SAT scores, strength of high school college preparatory curriculum and grade trends. The Admissions Office at the Kent Campus may defer the admission of students who do not meet admissions criteria but who demonstrate areas of promise for successful college study. Deferred applicants may begin their college coursework at one of seven regional campuses of Kent State University. For more information on admissions, including additional requirements for some academic programs, visit the admissions website for new freshmen.

**Freshman Students on the Regional Campuses:** Kent State campuses at Ashtabula, East Liverpool, Geauga, Salem, Stark, Trumbull and Tuscarawas, as well as the Regional Academic Center in Twinsburg, have

open enrollment admission for students who hold a high school diploma, GED or equivalent.

**English Language Proficiency Requirements for International Students:** All international students must provide proof of English language proficiency (unless they meet specific exceptions) by earning a minimum 525 TOEFL score (71 on the Internet-based version), minimum 75 MELAB score, minimum 6.0 IELTS score or minimum 48 PTE score, or by completing the ESL level 112 Intensive Program. For more information on international admission, visit the Office of Global Education's admission website.

**Transfer, Transitioning and Former Students:** For more information about admission criteria for transfer, transitioning and former students, please visit the admissions website.

**Current Kent State and Transfer Students:** Active Kent State students who wish to change their major must have attempted a minimum 12 credit hours at Kent State and earned a minimum 2.000 overall Kent State GPA to be admitted. Students who have not attempted 12 credit hours at Kent State will be evaluated for admission based on their high school GPA for new students or transfer GPA for transfer students. Transfer students who have not attempted 12 credit hours of college-level coursework at Kent State and/or other institutions will be evaluated based on both their high school GPA and college GPA.

## University Requirements

All students in a bachelor's degree program at Kent State University must complete the following university requirements for graduation.

**NOTE:** University requirements may be fulfilled in this program by specific course requirements. Please see Program Requirements for details.

Destination Kent State: First Year Experience	1
Course is not required for students with 25 transfer credits, excluding College Credit Plus, or age 21+ at time of admission.	
Diversity Domestic/Global (DIVD/DIVG)	2 courses
Students must successfully complete one domestic and one global course, of which one must be from the Kent Core.	
Experiential Learning Requirement (ELR)	varies
Students must successfully complete one course or approved experience.	
Kent Core (see table below)	36-37
Writing-Intensive Course (WIC)	1 course
Students must earn a minimum C grade in the course.	
Upper-Division Requirement	39 (or 42)
Students must successfully complete 39 upper-division (numbered 30000 to 49999) credit hours to graduate. Students in a B.A. and/or B.S. degree in the College of Arts and Sciences must complete 42 upper-division credit hours.	
Total Credit Hour Requirement	120
Some bachelor's degrees require students to complete more than 120 credit hours.	

## Kent Core Requirements

Kent Core Composition (KCMP)	6
Kent Core Mathematics and Critical Reasoning (KMCR)	3
Kent Core Humanities and Fine Arts (KHUM/KFA) (min one course each)	9
Kent Core Social Sciences (KSS) (must be from two disciplines)	6

Kent Core Basic Sciences (KBS/KLAB) (must include one laboratory)	6-7
Kent Core Additional (KADL)	6
<b>Total Credit Hours:</b>	<b>36-37</b>

## Program Requirements

### Major Requirements

Code	Title	Credit Hours
<b>Major Requirements (courses count in major GPA)</b>		
ATTR/EXSC 25057	HUMAN ANATOMY AND PHYSIOLOGY I (KBS) (KLAB) <sup>1</sup>	4
ATTR/EXSC 25058	HUMAN ANATOMY AND PHYSIOLOGY II (KBS) (KLAB) <sup>1</sup>	4
ATTR 35040 or EXSC 45040	STRENGTH AND CONDITIONING ADVANCED STRENGTH AND CONDITIONING	2-3
ATTR/EXSC 35054	BIOMECHANICS	3
EXSC 15010	INTRODUCTION TO EXERCISE SCIENCE	2
EXSC 35022	EXERCISE LEADERSHIP	3
EXSC 35023	PROFESSIONAL CERTIFICATE PREPARATION	2
EXSC 35068	STATISTICS FOR EXERCISE SCIENTIST <sup>2</sup>	3
EXSC 45080	PHYSIOLOGY OF EXERCISE (WIC) <sup>3</sup>	3
EXSC 45481	SEMINAR IN EXERCISE PHYSIOLOGY	1
NURS 20950 or PEP 25033	HUMAN GROWTH AND DEVELOPMENT FOR HEALTH PROFESSIONALS LIFESPAN MOTOR DEVELOPMENT	3
<b>Additional Requirements (courses do not count in major GPA)</b>		
CHEM 10060	GENERAL CHEMISTRY I (KBS)	4
CHEM 10061	GENERAL CHEMISTRY II (KBS)	4
CHEM 10062	GENERAL CHEMISTRY I LABORATORY (KBS) (KLAB)	1
CHEM 10063	GENERAL CHEMISTRY II LABORATORY (KBS) (KLAB)	1
PSYC 11762	GENERAL PSYCHOLOGY (DIVD) (KSS)	3
GERO 14029	INTRODUCTION TO GERONTOLOGY (DIVD) (KSS)	3
NUTR 23511	SCIENCE OF HUMAN NUTRITION (KBS)	3
UC 10097	DESTINATION KENT STATE: FIRST YEAR EXPERIENCE	1
Kent Core Composition		6
Kent Core Humanities and Fine Arts (minimum one course from each)		9
General Electives (total credit hours depends on earning 120 credit hours, including 39 upper-division credit hours) <sup>4</sup>		12
<b>Concentrations</b>		
Choose from the following:		43
Exercise Physiology		
Exercise Specialist		
Pre-Physical/Occupational Therapy/Podiatric Medicine		
Minimum Total Credit Hours:		120

<sup>1</sup> Students who have successfully completed BSCI 11010/BSCI 11020 or BSCI 21010/BSCI 21020 may use those courses in place of ATTR 25057/ATTR 25058 and EXSC 25057/EXSC 25058.

<sup>2</sup> Students who have successfully completed MATH 12022 or PSYC 21621 may use those courses in place of EXSC 35068.

<sup>3</sup> A minimum C grade must be earned to fulfill writing-intensive requirement.

<sup>4</sup> Students are strongly encouraged to meet with faculty advisor when selecting electives. Maximum 12 credit hours from the Doctor of Podiatric Medicine degree can be used to fulfill general electives for students admitted to the combined bachelor's/doctoral degree program.

### Exercise Physiology Concentration Requirements

Code	Title	Credit Hours
<b>Concentration Requirements (courses count in major GPA)</b>		
ATTR 25036	PRINCIPLES OF ATHLETIC TRAINING	3
CHEM 20481	BASIC ORGANIC CHEMISTRY I or CHEM 30481 ORGANIC CHEMISTRY I	4
EXSC 45096	INDIVIDUAL INVESTIGATION IN EXERCISE SCIENCE (ELR)	3
NUTR 33512	INTERMEDIATE NUTRITION SCIENCE	3
<b>Additional Requirements (courses do not count in major GPA)</b>		
MATH 11009	MODELING ALGEBRA (KMCR) or MATH 11010 ALGEBRA FOR CALCULUS (KMCR)	3-4
General Electives		27
Minimum Total Credit Hours:		43

### Exercise Specialist Concentration Requirements

Code	Title	Credit Hours
<b>Concentration Requirements (courses count in major GPA)</b>		
ATTR 25036	PRINCIPLES OF ATHLETIC TRAINING	3
ATTR 45040	PATHOLOGY AND PHARMACOLOGY FOR ALLIED HEALTH CARE PROVIDERS or EXSC 41000 EXERCISE IMPLEMENTATION: AN EXERCISE INTERVENTION PROGRAM	3
EXSC 35075	EXERCISE PROGRAMMING	3
EXSC 40612	EXERCISE LEADERSHIP FOR THE OLDER ADULT	3
EXSC 45065	EXERCISE TESTING	3
EXSC 45070	ELECTROCARDIOGRAPHY FOR THE EXERCISE PHYSIOLOGIST	3
EXSC 45492	INTERNSHIP IN PHYSICAL FITNESS AND CARDIAC REHABILITATION (ELR) <sup>1</sup>	3
<b>Additional Requirements (courses do not count in major GPA)</b>		
MATH 11009	MODELING ALGEBRA (KMCR) or MATH 11010 ALGEBRA FOR CALCULUS (KMCR)	3-4
General Electives		19
Minimum Total Credit Hours:		43

<sup>1</sup> State or Federal background checks may be required for practicum/internship experiences.

### Pre-Physical/Occupational Therapy/Podiatric Medicine Concentration Requirements

Code	Title	Credit Hours
<b>Concentration Requirements (courses count in major GPA)</b>		
BSCI 10110	BIOLOGICAL DIVERSITY (KBS) (KLAB)	4
BSCI 10120	BIOLOGICAL FOUNDATIONS (KBS) (KLAB)	4
EXSC 45096	INDIVIDUAL INVESTIGATION IN EXERCISE SCIENCE (ELR)	3
EXSC 45492	INTERNSHIP IN PHYSICAL FITNESS AND CARDIAC REHABILITATION (ELR) <sup>1</sup>	3

HED 14020	MEDICAL TERMINOLOGY	3
NUTR 33512	INTERMEDIATE NUTRITION SCIENCE	3
PHY 13001	GENERAL COLLEGE PHYSICS I (KBS)	4
PHY 13002	GENERAL COLLEGE PHYSICS II (KBS)	4
PHY 13021	GENERAL COLLEGE PHYSICS LABORATORY I (KBS) (KLAB)	1
PHY 13022	GENERAL COLLEGE PHYSICS LABORATORY II (KBS) (KLAB)	1
PSYC 40111	ABNORMAL PSYCHOLOGY	3
Chemistry Elective, choose from the following (depending on career goals):		4-8
CHEM 20481	BASIC ORGANIC CHEMISTRY I	
CHEM 30481	ORGANIC CHEMISTRY I	
& CHEM 30482	and ORGANIC CHEMISTRY II	
& CHEM 30475	and ORGANIC CHEMISTRY LABORATORY I	
& CHEM 30476	(ELR)	
	and ORGANIC CHEMISTRY LABORATORY II <sup>2</sup>	
<b>Additional Requirements (courses do not count in major GPA)</b>		
MATH 11010	ALGEBRA FOR CALCULUS (KMCR)	3
MATH 11022	TRIGONOMETRY (KMCR)	3
Minimum Total Credit Hours:		43

<sup>1</sup> State or Federal background checks may be required for practicum/ internship experiences.

<sup>2</sup> Recommended for those students planning to apply to the Doctor of Podiatric Medicine degree.

## Graduation Requirements

Minimum Major GPA	Minimum Overall GPA
2.250	2.000

- Upon completion of the degree, students are highly encouraged, especially those who do not have a 3.000 GPA, to take the American College of Sports Medicine (ACSM) Certified Exercise Physiologist exam and/or the Certified Personal Trainer exam to enhance employment opportunities. Admission into physical therapy or occupational therapy graduate programs is competitive by GPA.

## Roadmaps

- Exercise Physiology Concentration
- Exercise Specialist Concentration
- Pre-Physical/Occupational Therapy/Podiatric Medicine Concentration

## Exercise Physiology Concentration

This roadmap is a recommended semester-by-semester plan of study for this major. However, courses designated as critical (!) must be completed in the semester listed to ensure a timely graduation.

<b>Semester One</b>		<b>Credits</b>
EXSC 15010	INTRODUCTION TO EXERCISE SCIENCE	2
MATH 11009	MODELING ALGEBRA (KMCR)	3-4
or MATH 11010	or ALGEBRA FOR CALCULUS (KMCR)	
UC 10097	DESTINATION KENT STATE: FIRST YEAR EXPERIENCE	1
Kent Core Requirement		3
Kent Core Requirement		3
Kent Core Requirement		3
Credit Hours		15
<b>Semester Two</b>		
CHEM 10060	GENERAL CHEMISTRY I (KBS)	4
CHEM 10062	GENERAL CHEMISTRY I LABORATORY (KBS) (KLAB)	1
PSYC 11762	GENERAL PSYCHOLOGY (DIVD) (KSS)	3
Kent Core Requirement		3
General Elective		3
Credit Hours		14
<b>Semester Three</b>		
ATTR 25057	HUMAN ANATOMY AND PHYSIOLOGY I (KBS) (KLAB)	4
or EXSC 25057	or HUMAN ANATOMY AND PHYSIOLOGY I (KBS) (KLAB)	
EXSC 45481	SEMINAR IN EXERCISE PHYSIOLOGY	1
CHEM 10061	GENERAL CHEMISTRY II (KBS)	4
CHEM 10063	GENERAL CHEMISTRY II LABORATORY (KBS) (KLAB)	1
NUTR 23511	SCIENCE OF HUMAN NUTRITION (KBS)	3
NURS 20950	HUMAN GROWTH AND DEVELOPMENT FOR HEALTH PROFESSIONALS	3
or PEP 25033	or LIFESPAN MOTOR DEVELOPMENT	
Credit Hours		16
<b>Semester Four</b>		
ATTR 25058	HUMAN ANATOMY AND PHYSIOLOGY II (KBS) (KLAB)	4
or EXSC 25058	or HUMAN ANATOMY AND PHYSIOLOGY II (KBS) (KLAB)	
EXSC 35068	STATISTICS FOR EXERCISE SCIENTIST	3
GERO 14029	INTRODUCTION TO GERONTOLOGY (DIVD) (KSS)	3
Kent Core Requirement		3
General Electives		2
Credit Hours		15
<b>Semester Five</b>		
ATTR 25036	PRINCIPLES OF ATHLETIC TRAINING	3
ATTR 35040	STRENGTH AND CONDITIONING	2-3
or EXSC 45040	or ADVANCED STRENGTH AND CONDITIONING	
ATTR 35054	BIOMECHANICS	3
or EXSC 35054	or BIOMECHANICS	
CHEM 20481	BASIC ORGANIC CHEMISTRY I	4
or CHEM 30481	or ORGANIC CHEMISTRY I	

General Elective		3
Credit Hours		15
<b>Semester Six</b>		
EXSC 35022	EXERCISE LEADERSHIP	3
General Electives		13
Credit Hours		16
<b>Semester Seven</b>		
EXSC 35023	PROFESSIONAL CERTIFICATE PREPARATION	2
NUTR 33512	INTERMEDIATE NUTRITION SCIENCE	3
General Electives		9
Credit Hours		14
<b>Semester Eight</b>		
EXSC 45080	PHYSIOLOGY OF EXERCISE (WIC)	3
EXSC 45096	INDIVIDUAL INVESTIGATION IN EXERCISE SCIENCE (ELR)	3
General Electives		9
Credit Hours		15
Minimum Total Credit Hours:		120

## Exercise Specialist Concentration

This roadmap is a recommended semester-by-semester plan of study for this major. However, courses designated as critical (!) must be completed in the semester listed to ensure a timely graduation.

<b>Semester One</b>		<b>Credits</b>
EXSC 15010	INTRODUCTION TO EXERCISE SCIENCE	2
MATH 11009 or MATH 11010	MODELING ALGEBRA (KMCR) or ALGEBRA FOR CALCULUS (KMCR)	3-4
UC 10097	DESTINATION KENT STATE: FIRST YEAR EXPERIENCE	1
Kent Core Requirement		3
Kent Core Requirement		3
Kent Core Requirement		3
Credit Hours		15
<b>Semester Two</b>		
CHEM 10060	GENERAL CHEMISTRY I (KBS)	4
CHEM 10062	GENERAL CHEMISTRY I LABORATORY (KBS) (KLAB)	1
PSYC 11762	GENERAL PSYCHOLOGY (DIVD) (KSS)	3
Kent Core Requirement		3
Kent Core Requirement		3
Credit Hours		14
<b>Semester Three</b>		
CHEM 10061	GENERAL CHEMISTRY II (KBS)	4
CHEM 10063	GENERAL CHEMISTRY II LABORATORY (KBS) (KLAB)	1
ATTR 25057 or EXSC 25057	HUMAN ANATOMY AND PHYSIOLOGY I (KBS) (KLAB) or HUMAN ANATOMY AND PHYSIOLOGY I (KBS) (KLAB)	4
NURS 20950 or PEP 25033	HUMAN GROWTH AND DEVELOPMENT FOR HEALTH PROFESSIONALS or LIFESPAN MOTOR DEVELOPMENT	3
General Elective		3
Credit Hours		15
<b>Semester Four</b>		
ATTR 25058 or EXSC 25058	HUMAN ANATOMY AND PHYSIOLOGY II (KBS) (KLAB) or HUMAN ANATOMY AND PHYSIOLOGY II (KBS) (KLAB)	4
EXSC 35068	STATISTICS FOR EXERCISE SCIENTIST	3
GERO 14029	INTRODUCTION TO GERONTOLOGY (DIVD) (KSS)	3
NUTR 23511	SCIENCE OF HUMAN NUTRITION (KBS)	3
General Electives		4
Credit Hours		17
<b>Semester Five</b>		
ATTR 25036	PRINCIPLES OF ATHLETIC TRAINING	3
ATTR 35040 or EXSC 45040	STRENGTH AND CONDITIONING or ADVANCED STRENGTH AND CONDITIONING	2-3
ATTR 35054 or EXSC 35054	BIOMECHANICS or BIOMECHANICS	3
General Electives		6
Credit Hours		14
<b>Semester Six</b>		
EXSC 35022	EXERCISE LEADERSHIP	3

EXSC 35075	EXERCISE PROGRAMMING	3
EXSC 40612	EXERCISE LEADERSHIP FOR THE OLDER ADULT	3
EXSC 45070	ELECTROCARDIOGRAPHY FOR THE EXERCISE PHYSIOLOGIST	3
EXSC 45481	SEMINAR IN EXERCISE PHYSIOLOGY	1
General Elective		3
Credit Hours		16
<b>Semester Seven</b>		
ATTR 45040 or EXSC 41000	PATHOLOGY AND PHARMACOLOGY FOR ALLIED HEALTH CARE PROVIDERS or EXERCISE IMPLEMENTATION: AN EXERCISE INTERVENTION PROGRAM	3
EXSC 35023	PROFESSIONAL CERTIFICATE PREPARATION	2
EXSC 45065	EXERCISE TESTING	3
General Electives		6
Credit Hours		14
<b>Semester Eight</b>		
EXSC 45080	PHYSIOLOGY OF EXERCISE (WIC)	3
EXSC 45492	INTERNSHIP IN PHYSICAL FITNESS AND CARDIAC REHABILITATION (ELR)	3
General Electives		9
Credit Hours		15
Minimum Total Credit Hours:		120

## Pre-Physical/Occupational Therapy/Podiatric Medicine Concentration

This roadmap is a recommended semester-by-semester plan of study for this major. However, courses designated as critical (!) must be completed in the semester listed to ensure a timely graduation.

Semester One		Credits
BSCI 10120	BIOLOGICAL FOUNDATIONS (KBS) (KLAB)	4
CHEM 10060	GENERAL CHEMISTRY I (KBS)	4
CHEM 10062	GENERAL CHEMISTRY I LABORATORY (KBS) (KLAB)	1
EXSC 15010	INTRODUCTION TO EXERCISE SCIENCE	2
MATH 11010	ALGEBRA FOR CALCULUS (KMCR)	3
UC 10097	DESTINATION KENT STATE: FIRST YEAR EXPERIENCE	1
Credit Hours		15
Semester Two		
BSCI 10110	BIOLOGICAL DIVERSITY (KBS) (KLAB)	4
CHEM 10061	GENERAL CHEMISTRY II (KBS)	4
CHEM 10063	GENERAL CHEMISTRY II LABORATORY (KBS) (KLAB)	1
MATH 11022	TRIGONOMETRY (KMCR)	3
Kent Core Requirement		3
Credit Hours		15
Semester Three		
ATTR 25057 or EXSC 25057	HUMAN ANATOMY AND PHYSIOLOGY I (KBS) (KLAB) or HUMAN ANATOMY AND PHYSIOLOGY I (KBS) (KLAB)	4
HED 14020	MEDICAL TERMINOLOGY	3
PSYC 11762	GENERAL PSYCHOLOGY (DIVD) (KSS)	3
Chemistry Elective		4
Kent Core Requirement		3
Credit Hours		17
Semester Four		
ATTR 25058 or EXSC 25058	HUMAN ANATOMY AND PHYSIOLOGY II (KBS) (KLAB) or HUMAN ANATOMY AND PHYSIOLOGY II (KBS) (KLAB)	4
ATTR 35040 or EXSC 45040	STRENGTH AND CONDITIONING or ADVANCED STRENGTH AND CONDITIONING	2-3
GERO 14029	INTRODUCTION TO GERONTOLOGY (DIVD) (KSS)	3
Chemistry Elective or General Electives		4
Kent Core Requirement		3
Credit Hours		16
Semester Five		
ATTR 35054 or EXSC 35054	BIOMECHANICS or BIOMECHANICS	3
EXSC 35068	STATISTICS FOR EXERCISE SCIENTIST	3
EXSC 45481	SEMINAR IN EXERCISE PHYSIOLOGY	1
NUTR 23511	SCIENCE OF HUMAN NUTRITION (KBS)	3
PHY 13001	GENERAL COLLEGE PHYSICS I (KBS)	4
PHY 13021	GENERAL COLLEGE PHYSICS LABORATORY I (KBS) (KLAB)	1
Credit Hours		15
Semester Six		
EXSC 35023	PROFESSIONAL CERTIFICATE PREPARATION	2

EXSC 45080	PHYSIOLOGY OF EXERCISE (WIC)	3
NURS 20950 or PEP 25033	HUMAN GROWTH AND DEVELOPMENT FOR HEALTH PROFESSIONALS or LIFESPAN MOTOR DEVELOPMENT	3
NUTR 33512	INTERMEDIATE NUTRITION SCIENCE	3
PHY 13002	GENERAL COLLEGE PHYSICS II (KBS)	4
PHY 13022	GENERAL COLLEGE PHYSICS LABORATORY II (KBS) (KLAB)	1
Credit Hours		16
Semester Seven		
EXSC 35022	EXERCISE LEADERSHIP	3
EXSC 45096	INDIVIDUAL INVESTIGATION IN EXERCISE SCIENCE (ELR)	3
EXSC 45492	INTERNSHIP IN PHYSICAL FITNESS AND CARDIAC REHABILITATION (ELR)	3
PSYC 40111	ABNORMAL PSYCHOLOGY	3
Kent Core Requirement		3
Credit Hours		15
Semester Eight		
Kent Core Requirement		3
General Electives		9
Credit Hours		12
Minimum Total Credit Hours:		121