

# EXERCISE SCIENCE - B.S.

College of Education Health and Human Services  
School of Health Sciences  
www.kent.edu/ehhs/hs

## About This Program

The Exercise Science B.S. program focuses on the scientific study of human movement and exercise, preparing students for careers in fields such as sports performance, rehabilitation, fitness and health promotion. You'll learn from experienced faculty members and gain hands-on experience through internships, research opportunities and our state-of-the-art exercise science lab. Read more...

## Contact Information

- Program Coordinator: **J. Derek Kingsley** | jkingsle@kent.edu | 330-672-0222
- Speak with an Advisor
- Chat with an Admissions Counselor

## Program Delivery

- **Delivery:**
  - In person
- **Locations:**
  - Kent Campus

## Examples of Possible Careers and Salaries\*

### Exercise physiologists

- 11.3% much faster than the average
- 19,800 number of jobs
- \$50,280 potential earnings

### Physical therapists

- 18.2% much faster than the average
- 258,200 number of jobs
- \$91,010 potential earnings

### Additional Careers

- Strength and Conditioning Coach
- Exercise specialist

### Careers Requiring Additional Education

- Pre-Physical/Occupational
- Therapy/Podiatric Medicine
- Exercise physiologist
- Physical therapist

## Accreditation

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

National Strength and Conditioning Education Recognition Program

\* Source of occupation titles and labor data comes from the U.S. Bureau of Labor Statistics' Occupational Outlook Handbook. Data comprises projected percent change in employment over the next 10 years; nation-wide employment numbers; and the yearly median wage at which half of the workers in the occupation earned more than that amount and half earned less.

## 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.

**First-Year Students on the Kent Campus:** First-year admission policy on the Kent Campus is selective. Admission decisions are based upon cumulative grade point average, strength of high school college preparatory curriculum and grade trends. Students not admissible to the Kent Campus may be administratively referred to one of the seven regional campuses to begin their college coursework. For more information, visit the admissions website for first-year students.

**First-Year Students on the Regional Campuses:** First-year admission to Kent State's campuses at Ashtabula, East Liverpool, Geauga, Salem, Stark, Trumbull and Tuscarawas, as well as the Twinsburg Academic Center, is open to anyone with a high school diploma or its equivalent. For more information on admissions, contact the Regional Campuses admissions offices.

**International Students:** All international students must provide proof of English language proficiency unless they meet specific exceptions. For more information, visit the admissions website for international students.

**Transfer Students:** Students who have attended any other educational institution after graduating from high school must apply as undergraduate transfer students. For more information, visit the admissions website for transfer students.

**Former Students:** Former Kent State students or graduates who have not attended another college or university since Kent State may complete the reenrollment or reinstatement form on the University Registrar's website.

Admission policies for undergraduate students may be found in the University Catalog.

Some programs may require that students meet certain requirements before progressing through the program. For programs with progression requirements, the information is shown on the Coursework tab.

**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.

## Program 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/EXSC 35054	BIOMECHANICS	3
EXSC 15010	INTRODUCTION TO EXERCISE SCIENCE	2
EXSC 35068	STATISTICS FOR THE EXERCISE SCIENTIST <sup>2</sup>	3
EXSC 45065	EXERCISE TESTING <sup>3</sup>	3
or EXSC 45070	ELECTROCARDIOGRAPHY FOR THE EXERCISE PHYSIOLOGIST	
EXSC 45080	PHYSIOLOGY OF EXERCISE (WIC) <sup>4</sup>	3
EXSC 45481	SEMINAR IN EXERCISE PHYSIOLOGY	1
GERO 14029	INTRODUCTION TO GERONTOLOGY (DIVD) (KSS)	3
NUTR 23511	SCIENCE OF HUMAN NUTRITION (KBS)	3
NURS 20950	HUMAN GROWTH AND DEVELOPMENT FOR HEALTH PROFESSIONALS	3
or PESP 25033	LIFESPAN MOTOR DEVELOPMENT	
PH 30015	UNITED STATES HEALTH CARE SYSTEM	3
or SPAD 35025	FACILITY MANAGEMENT	
SEPP 20026	PSYCHOLOGICAL FOUNDATIONS OF SPORT AND EXERCISE	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
UC 10001	FLASHES 101	1
Kent Core Composition		6
Kent Core Humanities and Fine Arts (minimum one course from each)		9
<b>Concentrations</b>		
Choose from the following:		53
Exercise Physiology		
Exercise Specialist		
Pre-Physical/Occupational Therapy/Podiatric Medicine		
Strength and Conditioning Concentration		
<b>Minimum Total Credit Hours:</b>		<b>120</b>

<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> EXSC 45065 is strongly recommended for students in the Strength and Conditioning concentration. Students in the Exercise Specialist concentration are required to take both courses; one will fulfill major requirements and the other will fulfill concentration requirements.

<sup>4</sup> A minimum C grade must be earned to fulfill writing-intensive requirement.

## Exercise Physiology Concentration Requirements

Code	Title	Credit Hours
<b>Concentration Requirements (courses count in major GPA)</b>		
ATTR 25036	RESPONDING TO EMERGENCIES	3
ATTR 35040	STRENGTH AND CONDITIONING	2-3
or EXSC 45040	ADVANCED STRENGTH AND CONDITIONING	

CHEM 20481	BASIC ORGANIC CHEMISTRY I	4
or CHEM 30481	ORGANIC CHEMISTRY I	
EXSC 45022	EXERCISE LEADERSHIP <sup>1</sup>	2
or EXSC 45023	PROFESSIONAL CERTIFICATE PREPARATION	
EXSC 45096	INDIVIDUAL INVESTIGATION IN EXERCISE SCIENCE (ELR) <sup>2</sup>	3
NUTR 33512	INTERMEDIATE NUTRITION SCIENCE	3
<b>Additional Requirements (courses do not count in major GPA)</b>		
MATH 11009	MODELING ALGEBRA (KMCR)	3-4
or MATH 11010	ALGEBRA FOR CALCULUS (KMCR)	
General Electives (total credit hours depends on earning 120 credits hour, including 39 upper-division credit hours) <sup>3</sup>		33
<b>Minimum Total Credit Hours:</b>		<b>53</b>

<sup>1</sup> For *Exercise Leadership*, the final exam is the American College of Sports Medicine Certified Exercise Physiologist (ACSM-EP) certification. This certification requires that you be in your last semester of your senior year. For *Professional Certification Preparation*, the final exam is the National Strength and Conditioning Association's Certified Strength and Conditioning Specialist (CSCS). This certification requires that you are in the last year of the program.

<sup>2</sup> This course can be taken 1-6 credits. It is repeatable up to 6 credits (45 contact hours per credit).

<sup>3</sup> Students are strongly encouraged to meet with faculty advisor when selecting electives.

## Exercise Specialist Concentration Requirements

Code	Title	Credit Hours
<b>Concentration Requirements (courses count in major GPA)</b>		
ATTR 25036	RESPONDING TO EMERGENCIES	3
ATTR 35040	STRENGTH AND CONDITIONING	2-3
or EXSC 45040	ADVANCED STRENGTH AND CONDITIONING	
ATTR 45040	PATHOLOGY AND PHARMACOLOGY FOR ALLIED HEALTH CARE PROVIDERS	3
or EXSC 41000	EXERCISE IMPLEMENTATION: AN EXERCISE INTERVENTION PROGRAM	
EXSC 35075	EXERCISE PROGRAMMING	3
EXSC 40612	EXERCISE LEADERSHIP FOR THE OLDER ADULT	3
EXSC 45022	EXERCISE LEADERSHIP <sup>1</sup>	2
or EXSC 45023	PROFESSIONAL CERTIFICATE PREPARATION	
EXSC 45065	EXERCISE TESTING <sup>2</sup>	3
or EXSC 45070	ELECTROCARDIOGRAPHY FOR THE EXERCISE PHYSIOLOGIST	
EXSC 45492	INTERNSHIP IN PHYSICAL FITNESS AND CARDIAC REHABILITATION (ELR) <sup>3</sup>	3
<b>Additional Requirements (courses do not count in major GPA)</b>		
MATH 11009	MODELING ALGEBRA (KMCR)	3-4
or MATH 11010	ALGEBRA FOR CALCULUS (KMCR)	
General Electives (total credit hours depends on earning 120 credits hour, including 39 upper-division credit hours) <sup>4</sup>		28
<b>Minimum Total Credit Hours:</b>		<b>53</b>

<sup>1</sup> For *Exercise Leadership*, the final exam is the American College of Sports Medicine Certified Exercise Physiologist (ACSM-EP) certification. This certification requires that you be in your last semester of your senior year. For *Professional Certification Preparation*, the final exam is the National Strength and Conditioning Association's

Certified Strength and Conditioning Specialist (CSCS). This certification requires that you are in the last year of the program.

<sup>2</sup> EXSC 45065 and EXSC 45070 are both required for students in the Exercise Specialist concentration; one fulfills major requirements and the other fulfills concentration requirements.

<sup>3</sup> State or Federal background checks may be required for practicum/ internship experiences. This course can be taken for 1-8 credits and is repeatable up to 8 credits (45 contact hours per credit).

<sup>4</sup> Students are strongly encouraged to meet with faculty advisor when selecting electives.

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

Code	Title	Credit Hours
<b>Concentration Requirements (courses count in major GPA)</b>		
ATTR 35040 or EXSC 45040	STRENGTH AND CONDITIONING ADVANCED STRENGTH AND CONDITIONING	2-3
BSCI 10110	BIOLOGICAL DIVERSITY (ELR) (KBS) (KLAB)	4
BSCI 10120	BIOLOGICAL FOUNDATIONS (ELR) (KBS) (KLAB)	4
EXSC 43098 or EXSC 35075	RESEARCH IN EXERCISE SCIENCE (ELR) <sup>1</sup> EXERCISE PROGRAMMING	1-3
EXSC 45492	INTERNSHIP IN PHYSICAL FITNESS AND CARDIAC REHABILITATION (ELR) <sup>2</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	PSYCHOPATHOLOGY	3
Chemistry Elective, choose from the following (depending on career goals):		4-8
CHEM 20481	BASIC ORGANIC CHEMISTRY I	
CHEM 30481 & CHEM 30482 & CHEM 30475 & CHEM 30476	ORGANIC CHEMISTRY I and ORGANIC CHEMISTRY II and ORGANIC CHEMISTRY LABORATORY I (ELR) and ORGANIC CHEMISTRY LABORATORY II <sup>3</sup>	
<b>Additional Requirements (courses do not count in major GPA)</b>		
MATH 11010	ALGEBRA FOR CALCULUS (KMCR)	3
MATH 11022	TRIGONOMETRY (KMCR)	3
General Electives (total credit hours depends on earning 120 credits hour, including 39 upper-division credit hours) <sup>4</sup>		10
<b>Minimum Total Credit Hours:</b>		<b>53</b>

<sup>1</sup> This course can be taken for 1-3 credits and is repeatable up to 12 credits (45 contact hours per credit).

<sup>2</sup> State or Federal background checks may be required for practicum/ internship experiences. This course can be taken for 1-8 credits and is repeatable up to 8 credits (45 contact hours per credit).

<sup>3</sup> Organic Chemistry series recommended for those students planning to apply to the Doctor of Podiatric Medicine degree.

<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.

## Strength and Conditioning Concentration Requirements

Code	Title	Credit Hours
ATTR 25036	RESPONDING TO EMERGENCIES	3
ATTR 35040	STRENGTH AND CONDITIONING	2
EXSC 35075	EXERCISE PROGRAMMING	3
EXSC 45023	PROFESSIONAL CERTIFICATE PREPARATION <sup>1</sup>	2
EXSC 45040	ADVANCED STRENGTH AND CONDITIONING	3
EXSC 45492	INTERNSHIP IN PHYSICAL FITNESS AND CARDIAC REHABILITATION (ELR)	6
NUTR 23520	SPORTS NUTRITION	3
SEPP 40020	HIGH PERFORMANCE ATHLETES IN SPORT	3
<i>Additional Requirements (courses do not count in major GPA)</i>		
MATH 11009 or MATH 11010	MODELING ALGEBRA (KMCR) ALGEBRA FOR CALCULUS (KMCR)	3-4
General Electives (total credit hours depends on earning 120 credits hour, including 39 upper-division credit hours) <sup>3</sup>		25
<b>Minimum Total Credit Hours:</b>		<b>53</b>

<sup>1</sup> The final exam is the National Strength and Conditioning Association's Certified Strength and Conditioning Specialist. This certification requires that you are in the last year of the program.

<sup>2</sup> State or Federal background checks may be required for practicum/ internship experiences. This course can be taken for 1-8 credits and is repeatable up to 8 credits (45 contact hours per credit).

<sup>3</sup> Students are strongly encouraged to meet with faculty advisor when selecting electives.

## Graduation Requirements

Minimum Major GPA	Minimum Overall GPA
2.250	2.000

• Admission into physical therapy or occupational therapy graduate programs is competitive by GPA.

## Roadmaps

### 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.

Semester One		Credits
EXSC 15010	INTRODUCTION TO EXERCISE SCIENCE	2
MATH 11009 or MATH 11010	MODELING ALGEBRA (KMCR) or ALGEBRA FOR CALCULUS (KMCR)	3-4
UC 10001	FLASHES 101	1
Kent Core Requirement		3
Kent Core Requirement		3
Kent Core Requirement		3
<b>Credit Hours</b>		<b>15</b>
Semester Two		
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**

#### Semester Three

ATTR 25057 or EXSC 25057	HUMAN ANATOMY AND PHYSIOLOGY I (KBS) (KLAB) or HUMAN ANATOMY AND PHYSIOLOGY I (KBS) (KLAB)	4
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 or PESP 25033	HUMAN GROWTH AND DEVELOPMENT FOR HEALTH PROFESSIONALS or LIFESPAN MOTOR DEVELOPMENT	3

**Credit Hours 16**

#### Semester Four

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 THE EXERCISE SCIENTIST	3
GERO 14029	INTRODUCTION TO GERONTOLOGY (DIVD) (KSS)	3
SEPP 20026	PSYCHOLOGICAL FOUNDATIONS OF SPORT AND EXERCISE	3
Kent Core Requirement		3

**Credit Hours 16**

#### Semester Five

ATTR 25036	RESPONDING TO EMERGENCIES	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
CHEM 20481 or CHEM 30481	BASIC ORGANIC CHEMISTRY I or ORGANIC CHEMISTRY I	4
General Elective		3

**Credit Hours 15**

#### Semester Six

EXSC 45080	PHYSIOLOGY OF EXERCISE (WIC)	3
EXSC 45065 or EXSC 45070	EXERCISE TESTING or ELECTROCARDIOGRAPHY FOR THE EXERCISE PHYSIOLOGIST	3
General Electives		9

**Credit Hours 15**

#### Semester Seven

NUTR 33512	INTERMEDIATE NUTRITION SCIENCE	3
SPAD 35025 or PH 30015	FACILITY MANAGEMENT or UNITED STATES HEALTH CARE SYSTEM	3
General Electives		9

**Credit Hours 15**

#### Semester Eight

EXSC 45022 or EXSC 45023	EXERCISE LEADERSHIP or PROFESSIONAL CERTIFICATE PREPARATION	2
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EXSC 45096	INDIVIDUAL INVESTIGATION IN EXERCISE SCIENCE (ELR)	3
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General Electives 9

**Credit Hours 14**

**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.

Semester One		Credits
EXSC 15010	INTRODUCTION TO EXERCISE SCIENCE	2
MATH 11009 or MATH 11010	MODELING ALGEBRA (KMCR) or ALGEBRA FOR CALCULUS (KMCR)	3-4
UC 10001	FLASHES 101	1
Kent Core Requirement		3
Kent Core Requirement		3
Kent Core Requirement		3
Credit Hours		15
Semester Two		
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
Semester Three		
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 PESP 25033	HUMAN GROWTH AND DEVELOPMENT FOR HEALTH PROFESSIONALS or LIFESPAN MOTOR DEVELOPMENT	3
SEPP 20026	PSYCHOLOGICAL FOUNDATIONS OF SPORT AND EXERCISE	3
Credit Hours		15
Semester Four		
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 THE EXERCISE SCIENTIST	3
GERO 14029	INTRODUCTION TO GERONTOLOGY (DIVD) (KSS)	3
NUTR 23511	SCIENCE OF HUMAN NUTRITION (KBS)	3
General Elective		3
Credit Hours		16
Semester Five		
ATTR 25036	RESPONDING TO EMERGENCIES	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
Semester Six		
EXSC 35075	EXERCISE PROGRAMMING	3

EXSC 45070	ELECTROCARDIOGRAPHY FOR THE EXERCISE PHYSIOLOGIST	3
EXSC 45080	PHYSIOLOGY OF EXERCISE (WIC)	3
EXSC 45481	SEMINAR IN EXERCISE PHYSIOLOGY	1
PH 30015 or SPAD 35025	UNITED STATES HEALTH CARE SYSTEM or FACILITY MANAGEMENT	3
Credit Hours		13
Semester Seven		
EXSC 45065	EXERCISE TESTING	3
ATTR 45040 or EXSC 41000	PATHOLOGY AND PHARMACOLOGY FOR ALLIED HEALTH CARE PROVIDERS or EXERCISE IMPLEMENTATION: AN EXERCISE INTERVENTION PROGRAM	3
General Electives		10
Credit Hours		16
Semester Eight		
EXSC 45022 or EXSC 45023	EXERCISE LEADERSHIP or PROFESSIONAL CERTIFICATE PREPARATION	2
EXSC 45492	INTERNSHIP IN PHYSICAL FITNESS AND CARDIAC REHABILITATION (ELR)	3
EXSC 40612	EXERCISE LEADERSHIP FOR THE OLDER ADULT	3
General Electives		9
Credit Hours		17
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 (ELR) (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 10001	FLASHES 101	1
Credit Hours		15
Semester Two		Credits
BSCI 10110	BIOLOGICAL DIVERSITY (ELR) (KBS) (KLAB)	4
CHEM 10061	GENERAL CHEMISTRY II (KBS)	4
CHEM 10063	GENERAL CHEMISTRY II LABORATORY (KBS) (KLAB)	1
MATH 11022	TRIGONOMETRY (KMCR)	3
SEPP 20026	PSYCHOLOGICAL FOUNDATIONS OF SPORT AND EXERCISE	3
Kent Core Requirement		3
Credit Hours		18
Semester Three		Credits
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		Credits
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
General Electives (may be used to fulfill Organic Chemistry series)		4
Kent Core Requirement		3
Credit Hours		16
Semester Five		Credits
ATTR 35054 or EXSC 35054	BIOMECHANICS or BIOMECHANICS	3
EXSC 35068	STATISTICS FOR THE 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		Credits
EXSC 35075 or EXSC 43098	EXERCISE PROGRAMMING or RESEARCH IN EXERCISE SCIENCE (ELR)	1-3
EXSC 45080	PHYSIOLOGY OF EXERCISE (WIC)	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
Kent Core Requirement		3
Credit Hours		15
Semester Seven		Credits
NURS 20950 or PESP 25033	HUMAN GROWTH AND DEVELOPMENT FOR HEALTH PROFESSIONALS or LIFESPAN MOTOR DEVELOPMENT	3
SPAD 35025 or PH 30015	FACILITY MANAGEMENT or UNITED STATES HEALTH CARE SYSTEM	3
PSYC 40111	PSYCHOPATHOLOGY	3
Kent Core Requirement		3
Credit Hours		12
Semester Eight		Credits
EXSC 45492	INTERNSHIP IN PHYSICAL FITNESS AND CARDIAC REHABILITATION (ELR)	3
EXSC 45065 or EXSC 45070	EXERCISE TESTING or ELECTROCARDIOGRAPHY FOR THE EXERCISE PHYSIOLOGIST	3
General Electives		6
Credit Hours		12
Minimum Total Credit Hours:		120

## Strength and Conditioning 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
EXSC 15010	INTRODUCTION TO EXERCISE SCIENCE	2
MATH 11009 or MATH 11010	MODELING ALGEBRA (KMCR) or ALGEBRA FOR CALCULUS (KMCR)	3-4
UC 10001	FLASHES 101	1
Kent Core Requirement		3
Kent Core Requirement		3
Kent Core Requirement		3
Credit Hours		15
Semester Two		Credits
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
Semester Three		Credits
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
SEPP 20026	PSYCHOLOGICAL FOUNDATIONS OF SPORT AND EXERCISE	3
NURS 20950 or PESP 25033	HUMAN GROWTH AND DEVELOPMENT FOR HEALTH PROFESSIONALS or LIFESPAN MOTOR DEVELOPMENT	3
<b>Credit Hours</b>		<b>15</b>
<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 THE EXERCISE SCIENTIST	3
GERO 14029	INTRODUCTION TO GERONTOLOGY (DIVD) (KSS)	3
NUTR 23511	SCIENCE OF HUMAN NUTRITION (KBS)	3
General Elective		3
<b>Credit Hours</b>		<b>16</b>
<b>Semester Five</b>		
ATTR 25036	RESPONDING TO EMERGENCIES	3
ATTR 35040	STRENGTH AND CONDITIONING	2
ATTR 35054	BIOMECHANICS	3
NUTR 23520	SPORTS NUTRITION	3
EXSC 45080	PHYSIOLOGY OF EXERCISE (WIC)	3
<b>Credit Hours</b>		<b>14</b>
<b>Semester Six</b>		
EXSC 45065 or EXSC 45070	EXERCISE TESTING or ELECTROCARDIOGRAPHY FOR THE EXERCISE PHYSIOLOGIST	3
EXSC 45481	SEMINAR IN EXERCISE PHYSIOLOGY	1
SPAD 35025 or PH 30015	FACILITY MANAGEMENT or UNITED STATES HEALTH CARE SYSTEM	3
General Elective		9
<b>Credit Hours</b>		<b>16</b>
<b>Semester Seven</b>		
EXSC 45040	ADVANCED STRENGTH AND CONDITIONING	3
EXSC 45492	INTERNSHIP IN PHYSICAL FITNESS AND CARDIAC REHABILITATION (ELR)	3
SEPP 40020	HIGH PERFORMANCE ATHLETES IN SPORT	3
EXSC 35075	EXERCISE PROGRAMMING	3
General Elective		3
<b>Credit Hours</b>		<b>15</b>
<b>Semester Eight</b>		
EXSC 45023	PROFESSIONAL CERTIFICATE PREPARATION	2
EXSC 45492	INTERNSHIP IN PHYSICAL FITNESS AND CARDIAC REHABILITATION (ELR)	3
General Elective		10
<b>Credit Hours</b>		<b>15</b>
<b>Minimum Total Credit Hours:</b>		<b>120</b>

## 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.

Flashes 101 (UC 10001)	1 credit hour
Course is not required for students with 30+ 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 credit hours
Writing-Intensive Course (WIC)	1 course
Students must earn a minimum C grade in the course.	
Upper-Division Requirement	39 credit hours
Students must successfully complete 39 upper-division (numbered 30000 to 49999) credit hours to graduate.	
Total Credit Hour Requirement	120 credit hours

## Kent Core Requirements

Kent Core Composition (KCOMP)	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 Learning Outcomes

Graduates of this program will be able to:

1. Explain the physiology of human movement.
2. Outline the anatomy and physiology of exercise.
3. Identify the pathophysiology of chronic diseases and risk factors.
4. Apply the knowledge, skills and abilities needed to assess, motivate and prescribe exercise for healthy individuals and those with chronic diseases.
5. Demonstrate understanding of scientific and theoretical concepts of physiology critical to acting as an Exercise Scientist [Knowledge].
6. Demonstrate practical skills including the ability to conduct a comprehensive fitness assessment [Assessment Skills].
7. Pass a National Certification (either the American College of Sports Medicine (ACSM) Certified Exercise Physiologist (EP) or the National Strength and Conditioning (NSCA) Certified Strength and Conditioning Coach (CSCS)) [Foundational Knowledge of the Field].

## Full Description

The Bachelor of Science degree in Exercise Science comprises four 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.
- The **Strength and Conditioning** concentration is designed to assist those that wish to pursue a career in the field of strength and conditioning. This may include working with all levels of athletes in a strength and conditioning facility.

The goal of the program is to prepare competent entry-level Exercise Science professionals in the cognitive (knowledge), psychomotor (skills), and affective (abilities) learning domains. Individual course content, objectives, and assessments are structured to achieve this larger goal.

## Professional Licensure Disclosure

This program is designed to prepare students to sit for applicable licensure or certification in Ohio. If you plan to pursue licensure or certification in a state other than Ohio, please review state educational requirements for licensure or certification and contact information for state licensing boards at Kent State's website for professional licensure disclosure.