

EXERCISE SCIENCE - B.S.

College of Public Health and Health Sciences
www.kent.edu/phhs

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 will 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

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- 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

- 9.5% much faster than the average
- 23,900 number of jobs
- \$58,160 potential earnings

Physical therapists

- 10.9% much faster than the average
- 267,200 number of jobs
- \$101,020 potential earnings

Additional careers

- Strength and conditioning coaches
- Exercise specialists

Careers requiring additional education

- Pre-physical/occupational
- Therapy/podiatric medicine
- Exercise physiologists
- Physical therapists

Accreditation

The B.S. degree in Exercise Science is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), Committee on Accreditation for the Exercise Sciences; the National Strength and Conditioning Association (NSCA) Education Recognition Program; and the Council on Education for Public Health (CEPH).

* 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 proficiency of the English language (unless they meet specific exceptions) through the submission of an English language proficiency test score or by completing English language classes at Kent State's English as a Second Language Center before entering their program. For more information, visit the admissions website for international 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.

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.

Transfer students visit the admissions website for transfer students for more information.

Admission policies for undergraduate students may be found in the University Catalog's Academic Policies.

Students may be required to meet certain criteria to progress in their program. Any progression requirements will be listed on the program's Coursework tab

Program Requirements

Major Requirements

Code	Title	Credit Hours
Major Requirements (courses count in major GPA)		
ATTR 15003 or EXSC 15003 or IHS 15003	CAREERS IN HEALTH AND MEDICAL SCIENCES	2
ATTR 25057 or EXSC 25057	HUMAN ANATOMY AND PHYSIOLOGY I (KBS) (KLAB) ¹	4
ATTR 25058 or EXSC 25058	HUMAN ANATOMY AND PHYSIOLOGY II (KBS) (KLAB) ¹	4
ATTR 35054 or EXSC 35054	BIOMECHANICS	3
EXSC 35068	STATISTICS FOR THE EXERCISE SCIENTIST ²	3
EXSC 35080	PHYSIOLOGY OF EXERCISE	4
EXSC 45065 or EXSC 45070	EXERCISE TESTING ³ ELECTROCARDIOGRAPHY FOR THE EXERCISE PHYSIOLOGIST	3
EXSC 45081	ADVANCED PHYSIOLOGY OF EXERCISE (WIC) ⁴	3
EXSC 45481	SEMINAR IN EXERCISE PHYSIOLOGY	1
GERO 14029	INTRODUCTION TO GERONTOLOGY (KSS)	3
NURS 20950 or PEHS 25033	HUMAN GROWTH AND DEVELOPMENT FOR HEALTH PROFESSIONALS LIFESPAN MOTOR DEVELOPMENT	3
NUTR 23511	SCIENCE OF HUMAN NUTRITION (KBS)	3
PH 10004	FOUNDATIONS OF PUBLIC HEALTH	3
PH 30015 or SPAD 35025	UNITED STATES HEALTH CARE SYSTEM FACILITY MANAGEMENT	3
SEPP 20026	PSYCHOLOGICAL FOUNDATIONS OF SPORT AND EXERCISE	3
Additional Requirements (courses do not count in major GPA)		
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 (KSS)	3
UC 10001	FLASHES 101	1
American Civic Literacy Requirement ⁵		3
Kent Core Composition		6
Kent Core Humanities and Fine Arts (minimum one course from each) ⁵		6-9
General Electives (total credit hours depends on earning 120 credit hours, including 39 upper-division credit hours) ^{5,6}		6
Concentrations		
Choose from the following:		40
Exercise Physiology		
Exercise Specialist		
Pre-Physical/Occupational Therapy/Podiatric Medicine		
Strength and Conditioning Concentration		
Minimum Total Credit Hours:		120

- ¹ 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.
- ² Students who have successfully completed MATH 12022 or PSYC 21621 may use those courses in place of EXSC 35068.
- ³ 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.
- ⁴ A minimum C grade must be earned to fulfill the writing-intensive requirement.
- ⁵ If students complete the American Civic Literacy requirement by taking HIST 12061, the course will apply to the Kent Core Humanities category. If they complete it with POL 10101, the course will apply toward general electives.
- ⁶ Students are strongly encouraged to meet with faculty advisor when selecting electives. For students in the Pre-Physical/Occupational Therapy/Podiatric Medicine concentration, a maximum 6 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
Concentration Requirements (courses count in major GPA)		
ATTR 25036	RESPONDING TO EMERGENCIES	3
CHEM 20481 or CHEM 30481	BASIC ORGANIC CHEMISTRY I ORGANIC CHEMISTRY I	4
EXSC 35040	PRACTICAL AND APPLIED CONCEPTS OF STRENGTH AND CONDITIONING	3
EXSC 45022 or EXSC 45023	EXERCISE LEADERSHIP ¹ PROFESSIONAL CERTIFICATE PREPARATION	2
EXSC 45096	INDIVIDUAL INVESTIGATION IN EXERCISE SCIENCE (ELR) ²	3
NUTR 33512	INTERMEDIATE NUTRITION SCIENCE	3
Additional Requirements (courses do not count in major GPA)		
MATH 11009 or MATH 11010	MODELING ALGEBRA (KMCR) ALGEBRA FOR CALCULUS (KMCR)	3-4
General Electives ³		19
Minimum Total Credit Hours:		40

- ¹ In EXSC 45022, the final exam is the American College of Sports Medicine Certified Exercise Physiologist (ACSM-EP) certification. This certification requires students to be in their last semester of their last year of the program. In EXSC 45023, the final exam is the National Strength and Conditioning Association's Certified Strength and Conditioning Specialist (CSCS). This certification requires students to be in their last year of the program.
- ² EXSC 45096 can be taken for 1 to 3 credit hours and is repeatable for maximum 6 credit hours toward the major (45 contact hours per credit hour).
- ³ Students are strongly encouraged to meet with faculty advisor when selecting electives.

Exercise Specialist Concentration Requirements

Code	Title	Credit Hours
Concentration Requirements (courses count in major GPA)		
ATTR 25036	RESPONDING TO EMERGENCIES	3
ATTR 45040	PATHOLOGY AND PHARMACOLOGY FOR HEALTH CARE PROVIDERS	3
or EXSC 34000	EXERCISE SCIENCE FOR ESPORTS	
EXSC 35040	PRACTICAL AND APPLIED CONCEPTS OF STRENGTH AND CONDITIONING	3
EXSC 35075	EXERCISE PROGRAMMING	3
EXSC 40612	EXERCISE LEADERSHIP FOR THE OLDER ADULT	3
EXSC 45022	EXERCISE LEADERSHIP ¹	2
or EXSC 45023	PROFESSIONAL CERTIFICATE PREPARATION	
EXSC 45040	ADVANCED STRENGTH AND CONDITIONING	3
EXSC 45065	EXERCISE TESTING ²	3
or EXSC 45070	ELECTROCARDIOGRAPHY FOR THE EXERCISE PHYSIOLOGIST	
EXSC 45492	INTERNSHIP IN PHYSICAL FITNESS AND CARDIAC REHABILITATION (ELR) ³	3
Additional Requirements (courses do not count in major GPA)		
MATH 11009	MODELING ALGEBRA (KMCR)	3-4
or MATH 11010	ALGEBRA FOR CALCULUS (KMCR)	
General Electives ⁴		11
Minimum Total Credit Hours:		40

¹ In EXSC 45022, the final exam is the American College of Sports Medicine Certified Exercise Physiologist (ACSM-EP) certification. This certification requires students to be in their last semester of their last year of the program. In EXSC 45023, the final exam is the National Strength and Conditioning Association's Certified Strength and Conditioning Specialist (CSCS). This certification requires students to be in their last year of the program.

² EXSC 45065 and EXSC 45070 are both required for students in the Exercise Specialist concentration; one will fulfill major requirements and the other will fulfill concentration requirements.

³ State or federal background checks may be required for practicum/internship experiences. EXSC 45492 can be taken for 1 to 8 credit hours and is repeatable for maximum 8 credit hours toward the major (45 contact hours per credit hour).

⁴ Students are strongly encouraged to meet with faculty advisor when selecting electives.

Pre-Physical/Occupational Therapy/Podiatric Medicine Concentration Requirements

Code	Title	Credit Hours
Concentration Requirements (courses count in major GPA)		
BSCI 10110	BIOLOGICAL DIVERSITY (ELR) (KBS) (KLAB)	4
BSCI 10120	BIOLOGICAL FOUNDATIONS (ELR) (KBS) (KLAB)	4
EXSC 43098	RESEARCH IN EXERCISE SCIENCE (ELR) ¹	3
or EXSC 45492	INTERNSHIP IN PHYSICAL FITNESS AND CARDIAC REHABILITATION (ELR)	
IHS 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):		4-10
CHEM 20481	BASIC ORGANIC CHEMISTRY I	
CHEM 30475	ORGANIC CHEMISTRY LABORATORY I (ELR)	
& CHEM 30476	and ORGANIC CHEMISTRY LABORATORY II	
& CHEM 30481	and ORGANIC CHEMISTRY I	
& CHEM 30482	and ORGANIC CHEMISTRY II ²	
Additional Requirements (courses do not count in major GPA)		
MATH 11010	ALGEBRA FOR CALCULUS (KMCR)	3
MATH 11022	TRIGONOMETRY (KMCR)	3
Minimum Total Credit Hours:		40

¹ EXSC 43098 can be taken for 1 to 3 credit hours and is repeatable for maximum 12 credit hours toward the major (45 contact hours per credit hour). EXSC 45492 can be taken for 1 to 8 credit hours and is repeatable for maximum 8 credit hours toward the major (45 contact hours per credit hour). State or federal background checks may be required for practicum/internship experiences.

² CHEM 30475, CHEM 30476, CHEM 30481 and CHEM 30482 are recommended for students planning to apply to the Doctor of Podiatric Medicine degree.

Strength and Conditioning Concentration Requirements

Code	Title	Credit Hours
Concentration Requirements (courses count in major GPA)		
ATTR 25036	RESPONDING TO EMERGENCIES	3
EXSC 35040	PRACTICAL AND APPLIED CONCEPTS OF STRENGTH AND CONDITIONING	3
EXSC 35075	EXERCISE PROGRAMMING	3
EXSC 45023	PROFESSIONAL CERTIFICATE PREPARATION ¹	2
EXSC 45040	ADVANCED STRENGTH AND CONDITIONING	3
EXSC 45492	INTERNSHIP IN PHYSICAL FITNESS AND CARDIAC REHABILITATION (ELR) ²	6
NUTR 23520	SPORTS NUTRITION	3
SEPP 40020	HIGH PERFORMANCE ATHLETES IN SPORT	3
Additional Requirements (courses do not count in major GPA)		
MATH 11009	MODELING ALGEBRA (KMCR)	3-4
or MATH 11010	ALGEBRA FOR CALCULUS (KMCR)	
General Electives ³		11
Minimum Total Credit Hours:		40

¹ The final exam is the National Strength and Conditioning Association's Certified Strength and Conditioning Specialist (CSCS). This certification requires students to be in their last year of the program.

² State or federal background checks may be required for practicum/internship experiences. EXSC 45492 can be taken for 1 to 8 credit hours and is repeatable for maximum 8 credit hours toward the major (45 contact hours per credit hour).

³ 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 program. Students will work with their advisor to develop a sequence based on their academic goals and history. Courses designated as critical (!) must be completed in the semester listed to ensure a timely graduation.

Semester One		Credits
ATTR 15003	CAREERS IN HEALTH AND MEDICAL SCIENCES	2
or	or CAREERS IN HEALTH AND MEDICAL SCIENCES	
EXSC 15003	SCIENCE	
or	or CAREERS IN HEALTH AND MEDICAL SCIENCES	
IHS 15003	SCIENCE	
MATH 11009	MODELING ALGEBRA (KMCR)	3-4
or	or ALGEBRA FOR CALCULUS (KMCR)	
MATH 11010		
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
PH 10004	FOUNDATIONS OF PUBLIC HEALTH	3
PSYC 11762	GENERAL PSYCHOLOGY (KSS)	3
Kent Core Requirement		3
Credit Hours		14
Semester Three		Credits
ATTR 25057	HUMAN ANATOMY AND PHYSIOLOGY I (KBS) (KLAB)	4
or	or HUMAN ANATOMY AND PHYSIOLOGY I (KBS) (KLAB)	
EXSC 25057		
CHEM 10061	GENERAL CHEMISTRY II (KBS)	4
CHEM 10063	GENERAL CHEMISTRY II LABORATORY (KBS) (KLAB)	1
EXSC 45481	SEMINAR IN EXERCISE PHYSIOLOGY	1
NURS 20950	HUMAN GROWTH AND DEVELOPMENT FOR HEALTH PROFESSIONALS	3
or	or LIFESPAN MOTOR DEVELOPMENT	
PEHS 25033		
NUTR 23511	SCIENCE OF HUMAN NUTRITION (KBS)	3
Credit Hours		16
Semester Four		Credits
ATTR 25058	HUMAN ANATOMY AND PHYSIOLOGY II (KBS) (KLAB)	4
or	or HUMAN ANATOMY AND PHYSIOLOGY II (KBS) (KLAB)	
EXSC 25058		
EXSC 35068	STATISTICS FOR THE EXERCISE SCIENTIST	3
GERO 14029	INTRODUCTION TO GERONTOLOGY (KSS)	3

SEPP 20026	PSYCHOLOGICAL FOUNDATIONS OF SPORT AND EXERCISE	3
American Civic Literacy Requirement		3
Credit Hours		16
Semester Five		Credits
ATTR 25036	RESPONDING TO EMERGENCIES	3
ATTR 35054	BIOMECHANICS	3
or	or BIOMECHANICS	
EXSC 35054		
CHEM 20481	BASIC ORGANIC CHEMISTRY I	4
or	or ORGANIC CHEMISTRY I	
CHEM 30481		
EXSC 35080	PHYSIOLOGY OF EXERCISE	4
Kent Core Requirement or General Elective		3
Credit Hours		17
Semester Six		Credits
EXSC 35040	PRACTICAL AND APPLIED CONCEPTS OF STRENGTH AND CONDITIONING	3
EXSC 45065	EXERCISE TESTING	3
or	or ELECTROCARDIOGRAPHY FOR THE EXERCISE PHYSIOLOGIST	
EXSC 45070		
General Electives		9
Credit Hours		15
Semester Seven		Credits
EXSC 45081	ADVANCED PHYSIOLOGY OF EXERCISE (WIC)	3
NUTR 33512	INTERMEDIATE NUTRITION SCIENCE	3
PH 30015	UNITED STATES HEALTH CARE SYSTEM	3
or	or FACILITY MANAGEMENT	
SPAD 35025		
General Electives		6
Credit Hours		15
Semester Eight		Credits
EXSC 45022	EXERCISE LEADERSHIP	2
or	or PROFESSIONAL CERTIFICATE PREPARATION	
EXSC 45023		
EXSC 45096	INDIVIDUAL INVESTIGATION IN EXERCISE SCIENCE (ELR)	3
General Electives		7
Credit Hours		12
Minimum Total Credit Hours:		120

Exercise Specialist Concentration

This roadmap is a recommended semester-by-semester plan of study for this program. Students will work with their advisor to develop a sequence based on their academic goals and history. Courses designated as critical (!) must be completed in the semester listed to ensure a timely graduation.

Semester One		Credits
ATTR 15003	CAREERS IN HEALTH AND MEDICAL SCIENCES	2
or	or CAREERS IN HEALTH AND MEDICAL SCIENCES	
EXSC 15003	SCIENCES	
or	or CAREERS IN HEALTH AND MEDICAL SCIENCES	
IHS 15003	SCIENCES	
MATH 11009	MODELING ALGEBRA (KMCR)	3-4
or	or ALGEBRA FOR CALCULUS (KMCR)	
MATH 11010		
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 (KSS)	3
American Civic Literacy Requirement		3
Kent Core Requirement		3
Credit Hours		14
Semester Three		
ATTR 25057	HUMAN ANATOMY AND PHYSIOLOGY I (KBS) (KLAB)	4
or	or HUMAN ANATOMY AND PHYSIOLOGY I (KBS) (KLAB)	
EXSC 25057		
CHEM 10061	GENERAL CHEMISTRY II (KBS)	4
CHEM 10063	GENERAL CHEMISTRY II LABORATORY (KBS) (KLAB)	1
NURS 20950	HUMAN GROWTH AND DEVELOPMENT FOR HEALTH PROFESSIONALS	3
or	or LIFESPAN MOTOR DEVELOPMENT	
PEHS 25033		
SEPP 20026	PSYCHOLOGICAL FOUNDATIONS OF SPORT AND EXERCISE	3
Credit Hours		15
Semester Four		
ATTR 25058	HUMAN ANATOMY AND PHYSIOLOGY II (KBS) (KLAB)	4
or	or HUMAN ANATOMY AND PHYSIOLOGY II (KBS) (KLAB)	
EXSC 25058		
EXSC 35068	STATISTICS FOR THE EXERCISE SCIENTIST	3
GERO 14029	INTRODUCTION TO GERONTOLOGY (KSS)	3
NUTR 23511	SCIENCE OF HUMAN NUTRITION (KBS)	3
PH 10004	FOUNDATIONS OF PUBLIC HEALTH	3
Credit Hours		16
Semester Five		
ATTR 25036	RESPONDING TO EMERGENCIES	3
ATTR 35054	BIOMECHANICS	3
or	or BIOMECHANICS	
EXSC 35054		
EXSC 35080	PHYSIOLOGY OF EXERCISE	4
Kent Core Requirement or General Elective		3

General Elective		3
Credit Hours		16
Semester Six		
EXSC 35040	PRACTICAL AND APPLIED CONCEPTS OF STRENGTH AND CONDITIONING	3
EXSC 45065	EXERCISE TESTING	3
EXSC 45070	ELECTROCARDIOGRAPHY FOR THE EXERCISE PHYSIOLOGIST	3
EXSC 45481	SEMINAR IN EXERCISE PHYSIOLOGY	1
PH 30015	UNITED STATES HEALTH CARE SYSTEM	3
or	or FACILITY MANAGEMENT	
SPAD 35025		
Credit Hours		13
Semester Seven		
ATTR 45040	PATHOLOGY AND PHARMACOLOGY FOR HEALTH CARE PROVIDERS	3
or	or EXERCISE SCIENCE FOR ESPORTS	
EXSC 34000		
EXSC 40612	EXERCISE LEADERSHIP FOR THE OLDER ADULT	3
EXSC 45081	ADVANCED PHYSIOLOGY OF EXERCISE (WIC)	3
General Electives		7
Credit Hours		16
Semester Eight		
EXSC 35075	EXERCISE PROGRAMMING	3
EXSC 45022	EXERCISE LEADERSHIP	2
or	or PROFESSIONAL CERTIFICATE PREPARATION	
EXSC 45023		
EXSC 45040	ADVANCED STRENGTH AND CONDITIONING	3
EXSC 45492	INTERNSHIP IN PHYSICAL FITNESS AND CARDIAC REHABILITATION (ELR)	3
General Electives		4
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 program. Students will work with their advisor to develop a sequence based on their academic goals and history. Courses designated as critical (!) must be completed in the semester listed to ensure a timely graduation.

Semester One		Credits
ATTR 15003	CAREERS IN HEALTH AND MEDICAL SCIENCES	2
or	or CAREERS IN HEALTH AND MEDICAL SCIENCES	
EXSC 15003	SCIENCE	
or	or CAREERS IN HEALTH AND MEDICAL SCIENCES	
IHS 15003	SCIENCE	
BSCI 10120	BIOLOGICAL FOUNDATIONS (ELR) (KBS) (KLAB)	4
CHEM 10060	GENERAL CHEMISTRY I (KBS)	4
CHEM 10062	GENERAL CHEMISTRY I LABORATORY (KBS) (KLAB)	1
MATH 11010	ALGEBRA FOR CALCULUS (KMCR)	3
UC 10001	FLASHES 101	1
Credit Hours		15
Semester Two		
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
Credit Hours		15
Semester Three		
ATTR 25057	HUMAN ANATOMY AND PHYSIOLOGY I (KBS) (KLAB)	4
or	or HUMAN ANATOMY AND PHYSIOLOGY I (KBS) (KLAB)	
EXSC 25057	or HUMAN ANATOMY AND PHYSIOLOGY I (KBS) (KLAB)	
IHS 14020	MEDICAL TERMINOLOGY	3
PSYC 11762	GENERAL PSYCHOLOGY (KSS)	3
Chemistry Elective		4-10
Credit Hours		14
Semester Four		
ATTR 25058	HUMAN ANATOMY AND PHYSIOLOGY II (KBS) (KLAB)	4
or	or HUMAN ANATOMY AND PHYSIOLOGY II (KBS) (KLAB)	
EXSC 25058	or HUMAN ANATOMY AND PHYSIOLOGY II (KBS) (KLAB)	
GERO 14029	INTRODUCTION TO GERONTOLOGY (KSS)	3
PH 10004	FOUNDATIONS OF PUBLIC HEALTH	3
Kent Core Requirement		3
Kent Core Requirement or General Elective (may be used to fulfill Organic Chemistry series)		3
Credit Hours		16
Semester Five		
ATTR 35054	BIOMECHANICS	3
or	or BIOMECHANICS	
EXSC 35054		
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		
EXSC 35080	PHYSIOLOGY OF EXERCISE	4
NUTR 33512	INTERMEDIATE NUTRITION SCIENCE	3
PHY 13002	GENERAL COLLEGE PHYSICS II (KBS)	4
PHY 13022	GENERAL COLLEGE PHYSICS LABORATORY II (KBS) (KLAB)	1
American Civic Literacy Requirement		3
Kent Core Requirement		3
Credit Hours		18
Semester Seven		
EXSC 45081	ADVANCED PHYSIOLOGY OF EXERCISE (WIC)	3
NURS 20950	HUMAN GROWTH AND DEVELOPMENT FOR HEALTH PROFESSIONALS	3
or	or LIFESPAN MOTOR DEVELOPMENT	
PEHS 25033	or LIFESPAN MOTOR DEVELOPMENT	
PH 30015	UNITED STATES HEALTH CARE SYSTEM	3
or	or FACILITY MANAGEMENT	
SPAD 35025		
PSYC 40111	PSYCHOPATHOLOGY	3
Kent Core Requirement		3
Credit Hours		15
Semester Eight		
EXSC 43098	RESEARCH IN EXERCISE SCIENCE (ELR)	3
or	or INTERNSHIP IN PHYSICAL FITNESS AND CARDIAC REHABILITATION (ELR)	
EXSC 45492		
EXSC 45065	EXERCISE TESTING	3
or	or ELECTROCARDIOGRAPHY FOR THE EXERCISE PHYSIOLOGIST	
EXSC 45070		
Kent Core Requirement		3
General Elective (may be used to fulfill Organic Chemistry series)		3
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 program. Students will work with their advisor to develop a sequence based on their academic goals and history. Courses designated as critical (!) must be completed in the semester listed to ensure a timely graduation.

Semester One		Credits
ATTR 15003	CAREERS IN HEALTH AND MEDICAL SCIENCES	2
or	or CAREERS IN HEALTH AND MEDICAL SCIENCES	
EXSC 15003	SCIENCE	
or	or CAREERS IN HEALTH AND MEDICAL SCIENCES	
IHS 15003	SCIENCE	
MATH 11009	MODELING ALGEBRA (KMCR)	3-4
or	or ALGEBRA FOR CALCULUS (KMCR)	
MATH 11010		
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 (KSS)	3
American Civic Literacy Requirement		3
Kent Core Requirement		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
CHEM 10061	GENERAL CHEMISTRY II (KBS)	4
CHEM 10063	GENERAL CHEMISTRY II LABORATORY (KBS) (KLAB)	1
NURS 20950 or PEHS 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 (KSS)	3
NUTR 23511	SCIENCE OF HUMAN NUTRITION (KBS)	3
PH 10004	FOUNDATIONS OF PUBLIC HEALTH	3

Credit Hours 16

Semester Five

ATTR 25036	RESPONDING TO EMERGENCIES	3
ATTR 35054 or EXSC 35054	BIOMECHANICS or BIOMECHANICS	3
EXSC 35040	PRACTICAL AND APPLIED CONCEPTS OF STRENGTH AND CONDITIONING	3
EXSC 35080	PHYSIOLOGY OF EXERCISE	4
NUTR 23520	SPORTS NUTRITION	3

Credit Hours 16

Semester Six

EXSC 45065 or EXSC 45070	EXERCISE TESTING or ELECTROCARDIOGRAPHY FOR THE EXERCISE PHYSIOLOGIST	3
EXSC 45481	SEMINAR IN EXERCISE PHYSIOLOGY	1
PH 30015 or SPAD 35025	UNITED STATES HEALTH CARE SYSTEM or FACILITY MANAGEMENT	3

Kent Core Requirement or General Elective 3

General Electives 6

Credit Hours 16

Semester Seven

EXSC 45081	ADVANCED PHYSIOLOGY OF EXERCISE (WIC)	3
EXSC 45492	INTERNSHIP IN PHYSICAL FITNESS AND CARDIAC REHABILITATION (ELR)	3
SEPP 40020	HIGH PERFORMANCE ATHLETES IN SPORT	3

General Electives 4

Credit Hours 13

Semester Eight

EXSC 35075	EXERCISE PROGRAMMING	3
EXSC 45023	PROFESSIONAL CERTIFICATE PREPARATION	2

EXSC 45040	ADVANCED STRENGTH AND CONDITIONING	3
EXSC 45492	INTERNSHIP IN PHYSICAL FITNESS AND CARDIAC REHABILITATION (ELR)	3

General Electives 4

Credit Hours 15

Minimum Total Credit Hours: 120

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.	
American Civic Literacy	3 credit hours
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 (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
Total Credit Hours:	36-37

Program Learning Outcomes

Graduates of this program will be able to:

1. Master the scientific and theoretical concepts of physiology critical to an entry-level exercise scientist.
2. Apply the knowledge, skills and abilities needed to assess, motivate and prescribe exercise or strength and conditioning as appropriate for an entry-level exercise scientist.
3. Utilize statistical methods to analyze and interpret data applicable to the exercise science 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. However, successful completion of this program does not guarantee acceptance into the Doctor of Podiatric Medicine degree. Please see the Podiatric Medicine doctoral program in the University Catalog for more information about the application process and acceptance criteria.
- The **Strength and Conditioning** concentration is designed to assist those who 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.