

# BACHELOR OF SCIENCE IN APPLIED SCIENCE IN EXERCISE SCIENCE

## Program Director

Garrett Kellar  
ggekellar@ysu.edu

## Overview

The Department of Kinesiology and Sport Science offers a Bachelor of Science in Applied Science degree with a major in exercise science. This program prepares students for certification through the American College of Sports Medicine (ACSM) as a Certified Exercise Physiologist (EP) and the National Strength & Conditioning Association (NSCA) as a Certified Strength and Conditioning Specialist (CSCS).

As such, graduates will be able to design safe and effective exercise prescriptions and conduct individual exercise programs, fitness testing, and health education for low- to moderate-risk individuals, individuals with controlled diseases, and individuals in special populations (e.g. pregnancy, hypertension, and osteoporosis).

Graduates are employed in a wide variety of settings that include:

- medically based wellness programs
- corporate wellness programs
- strength and conditioning
- clinical rehabilitation programs such as cardiac rehabilitation
- public and private fitness clubs

In addition, the program serves as a strong foundation for students wishing to pursue advanced degrees in the field of exercise science or enter professional schools such as:

- Athletic Training
- Physical Therapy
- Occupational Therapy
- Physician Assistant
- Medical school
- Graduate degree in Exercise Science/Physiology

## Admission

Application forms and other information for formal admittance to the Department of Kinesiology and Sport Science may be obtained in the department office, Room 307, Beeghly Center. This program can be completed in eight semesters if students average 16 hours per semester.

For individual semester advisement, including general education, minor, and additional requirements, see assigned departmental advisor.

For more information, visit Exercise Science - B.S. in Applied Science (<http://www.ysu.edu/academics/bitonte-college-health-and-human-services/exercise-science-major/>).

The following are KSS courses required in the major for this degree:

COURSE	TITLE	S.H.
<b>FIRST YEAR REQUIREMENT -STUDENT SUCCESS</b>		
YSU 1500	Success Seminar	1-2
or SS 1500	Strong Start Success Seminar	
or HONR 1500	Intro to Honors	

## General Education Requirements

ENGL 1550	Writing 1	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2	3
CMST 1545	Communication Foundations	3
Mathematics Requirement		5-7
MATH 1513	Algebra and Transcendental Function (5 s.h.)	
or MATH 1511	College Algebra & MATH 1511 and Trigonometry	
BIOL 1551 & 1551L	Anatomy and Physiology 1 and Anatomy and Physiology 1 Laboratory	4
BIOL 1552 & 1552L	Anatomy and Physiology 2 and Anatomy and Physiology 2 Laboratory	4
PSYC 1560	General Psychology	3
Social Science (1 Course)		3
FNUT 1551	Normal Nutrition	3
Social and Personal Awareness (1 Course)		3
Arts and Humanities (2 Courses)		6

## Major Requirements

KSS 1595	Introduction to Kinesiology and Sport Science (FYE course)	2
KSS 1559	Aerobic Conditioning Activities	2
KSS 1560	Resistance Training	2
KSS 1500 Activity Elective		1
KSS 2605	Sports First Aid and Injury Prevention	3
KSS 2625	Pedagogical Aspects of Exercise Science	3
KSS 3700	Exercise Testing and Prescription 1	4
KSS 3705	Statistics Research in Exercise Science	3
KSS 3710	Physiology of Exercise	4
KSS 3710L	Physiology of Exercise Laboratory	1
KSS 3720	Kinesiology and Applied Anatomy	4
KSS 3730	Exercise Testing and Prescription 2	4
KSS 3760	Strength Training and Conditioning	3
KSS 4805	Administration of Exercise Programs	3
KSS 4810	Exercise Testing and Prescription 3	4
KSS 4875	Exercise Counseling and Behavioral Strategies	4
KSS 4880	Internship	8
Additional Courses Needed		7
PHYS 1506	Physics for Health Care	3
CHEM 1515	General Chemistry 1	4
CHEM 1515L	General Chemistry 1 Laboratory	0
Electives		10-14
<b>Total Semester Hours</b>		<b>120-128</b>

## Year 1

Fall		S.H.
YSU 1500	Success Seminar	1
KSS 1559	Aerobic Conditioning Activities	2
MATH 1513	Algebra and Transcendental Function	5
ENGL 1550	Writing 1	3-4
or ENGL 1549	or Writing 1 with Support	
BIOL 1551 & 1551L	Anatomy and Physiology 1 and Anatomy and Physiology 1 Laboratory	4
<b>Semester Hours</b>		<b>15-16</b>
Spring		
KSS 1560	Resistance Training	2
KSS 1595	Introduction to Kinesiology and Sport Science	2
ENGL 1551	Writing 2	3

Arts & Humanities Elective		3
BIOL 1552 & 1552L	Anatomy and Physiology 2 and Anatomy and Physiology 2 Laboratory	4
CMST 1545	Communication Foundations	3
<b>Semester Hours</b>		<b>17</b>
<b>Year 2</b>		
<b>Fall</b>		
KSS 2625	Pedagogical Aspects of Exercise Science	3
KSS 2605	Sports First Aid and Injury Prevention	3
CHEM 1515 & 1515L	General Chemistry 1 and General Chemistry 1 Laboratory	4
PSYC 1560	General Psychology	3
<b>Semester Hours</b>		<b>13</b>
<b>Spring</b>		
KSS Activity Elective		1
KSS 3700	Exercise Testing and Prescription 1	4
KSS 3705	Statistics Research in Exercise Science	3
FNUT 1551	Normal Nutrition	3
PHYS 1506	Physics for Health Care	3
<b>Semester Hours</b>		<b>14</b>
<b>Year 3</b>		
<b>Fall</b>		
KSS 3710	Physiology of Exercise	4
KSS 3710L	Physiology of Exercise Laboratory	1
KSS 3720	Kinesiology and Applied Anatomy	4
KSS 4805	Administration of Exercise Programs	3
Elective		3
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
KSS 3730	Exercise Testing and Prescription 2	4
KSS 3760	Strength Training and Conditioning	3
Arts & Humanities Elective		3
Social Science Elective		3
Social & Personal Awareness Elective		3
<b>Semester Hours</b>		<b>16</b>
<b>Year 4</b>		
<b>Fall</b>		
KSS 4810	Exercise Testing and Prescription 3	4
Elective		3
Elective		3
Elective		3
<b>Semester Hours</b>		<b>13</b>
<b>Spring</b>		
KSS 4880	Internship	8
KSS 4875	Exercise Counseling and Behavioral Strategies	4
Elective		3
Elective		3
<b>Semester Hours</b>		<b>18</b>
<b>Total Semester Hours</b>		<b>121-122</b>

2) Students will demonstrate skills in risk factor and health risk identification and the ability to prescribe and implement exercise safely in healthy individuals, special populations (i.e. older adults) and individuals with controlled cardiovascular, pulmonary, and metabolic diseases and other clinical populations.

3) Students will demonstrate competency in effectively educating, exercise counseling and using behavioral strategies in individuals regarding lifestyle modification.

4) Students will demonstrate competency in the legal and professional tasks related to the field

5) Students will demonstrate knowledge of implementing management policies related to the field

## Learning Outcomes

The student learning outcomes for the BSAS in exercise science are as follows:

1) Students will demonstrate knowledge and skills in health, fitness and performance assessment