

BACHELOR OF SCIENCE IN APPLIED SCIENCE IN EXERCISE SCIENCE

Program Director

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Overview

The Department of Health Professions 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

Accreditation

The Bachelor of Science in Applied Science in Exercise Science is accredited by Commission on Accreditation of Allied Health Education Programs (CAAHEP). Accreditation Link (<http://www.coaes.org/>).

Current accreditation standing: Active Good Standing

Date of last campus visit: 2018

Date of next campus visit: 2023

Admission

Application forms and other information about this program can be obtained through the Department of Health Professions or by contacting Dr Garrett Kellar, ggekellar@ysu.edu. This program can be completed in eight semesters if students average 16 hours per semester.

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.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
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
STAT 2625	Statistical Literacy and Critical Reasoning	4
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	1
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
MATH 1513	Algebra and Transcendental Function (5 s.h.)	5-7
or MATH 1510 & MATH 1511	College Algebra and Trigonometry	
KSS 3700	Exercise Evaluation and Testing	4
KSS 3710	Physiology of Exercise	4
KSS 3710L	Physiology of Exercise Laboratory	1
KSS 3720	Kinesiology and Applied Anatomy	4
KSS 3730	Exercise Prescription	4
KSS 3760	Strength Training and Conditioning	3
KSS 4805	Administration of Exercise Programs	3
KSS 4810	Clinical Exercise Testing and Prescription	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	3
CHEM 1515L	General Chemistry 1 Laboratory	1
Electives		10
Total Semester Hours		120-124
Year 1		
Fall		S.H.
YSU 1500	Success Seminar	1-2
or HONR 1500	or Intro to Honors	
or SS 1500	or Strong Start Success Seminar	
KSS 1559	Aerobic Conditioning Activities	1
MATH 1513	Algebra and Transcendental Function	5-7
or MATH 1510	or College Algebra	
or MATH 1511	or Trigonometry	

ENGL 1550 or ENGL 1549	Writing 1 or Writing 1 with Support	3-4
BIOL 1551 & 1551L	Anatomy and Physiology 1 and Anatomy and Physiology 1 Laboratory	4
Semester Hours		14-18
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
Semester Hours		17
Year 2		
Fall		
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
Semester Hours		13
Spring		
KSS Activity Elective		1
KSS 3700	Exercise Evaluation and Testing	4
FNUT 1551	Normal Nutrition	3
STAT 2625	Statistical Literacy and Critical Reasoning	4
PHYS 1506	Physics for Health Care	3
Semester Hours		15
Year 3		
Fall		
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
Semester Hours		15
Spring		
KSS 3730	Exercise Prescription	4
KSS 3760	Strength Training and Conditioning	3
Arts & Humanities Elective		3
Social Science Elective		3
Social & Personal Awareness Elective		3
Semester Hours		16
Year 4		
Fall		
KSS 4810	Clinical Exercise Testing and Prescription	4
Elective		3
Elective		3
Elective		3
Semester Hours		13
Spring		
KSS 4880	Internship	8
KSS 4875	Exercise Counseling and Behavioral Strategies	4
Elective		2

Elective	3
Semester Hours	17
Total Semester Hours	120-124

Student Learning Outcomes**Student Learning Outcome #1:**

- Students will demonstrate knowledge and skills in health, fitness, and performance assessment.

DESIRED LEARNING OUTCOME

- Students will conduct physical fitness assessments for healthy participants and those with controlled disease.
- Students will interpret cardiorespiratory fitness assessments.

Student Learning Outcome #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, youth, and pregnant women), individuals with controlled cardiovascular, pulmonary, and metabolic diseases, and other clinical populations.

DESIRED PERFORMANCE OUTCOME

- Students will prescribe and implement Exercise Rx, using FITT-VP principles, for healthy participants, special populations (i.e. older adults, youth, and pregnant women), participants with controlled cardiovascular, pulmonary, and metabolic diseases, and other clinical populations based on health status and goals.
- Students will establish progression guidelines for resistance, aerobic and flexibility exercises to achieve the goals of the participant.
- Students will determine safe and effective exercise programs to achieve desired outcomes and goals.
- Students will demonstrate knowledge regarding the implementation of a weight management program as indicated by personal goals that are supported by pre-participation health screening, health history, and body composition/anthropometric
- The student will demonstrate skill in modifying exercise prescriptions based on environmental conditions.

Student Learning Outcome #3

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

DESIRED PERFORMANCE OUTCOME

- Optimize adoption and adherence to exercise programs and other healthy behaviors by applying effective communication techniques, behavioral and motivational strategies.
- Students will demonstrate their knowledge by providing educational resources to support clients in the adoption and maintenance of healthy lifestyle behaviors.
- Students will demonstrate their knowledge by providing support within the scope of practice of an ACSM Certified Exercise Physiologist and refer to other health professionals as indicated.

Student Learning Outcome #4:

- Students will demonstrate competency in the legal and professional tasks related to the discipline

DESIRED PERFORMANCE OUTCOME

- Students will create and disseminate risk management guidelines for a health/fitness facility, department or organization to reduce member, employee and business risk
- Students will create an effective injury prevention program and ensure that emergency policies and procedures are in place.
- Students will demonstrate knowledge in establishing policies and procedures for the management of health fitness facilities based on accepted safety and legal guidelines, standards and regulations

Student Learning Outcome #5

- Students will demonstrate knowledge of implementing management policies related to the discipline.

DESIRED PERFORMANCE OUTCOMES

- Students will demonstrate knowledge in developing and executing a marketing plan to promote programs, services and facilities
- Students will demonstrate knowledge in managing human resources in accordance with leadership, organization, and management techniques.
- Students will demonstrate knowledge in managing fiscal resources in accordance with leadership, organization, and management techniques.