

EXERCISE SCIENCE (BS)

Contacts

Program Director: Stephen J. Thomas, PhD, ATC

Email: Stephen.Thomas@jefferson.edu

215-951-2657

Campus: East Falls

Program Website (<https://www.jefferson.edu/academics/colleges-schools-institutes/rehabilitation-sciences/departments/exercise-science/degrees-programs/bs-exercise-science.html>)

Program Description

Designed for high school graduates that are interested in pursuing a career in the health and fitness field. This program provides a high-quality educational experience that couples both classroom and hands-on educational experiences necessary to obtain employment in a variety of health and fitness settings including:

- Personal training
- Strength coach
- Corporate wellness
- Exercise physiologist
- Cardiac rehabilitation
- Clinical exercise specialist
- Human performance
- Sport scientist

Learning Goals/Outcomes

- Demonstrate foundational knowledge in biology, chemistry, mathematics, physics, and psychology.
- Demonstrate practical knowledge in human anatomy/physiology, biomechanics, exercise science, and nutrition for a variety of populations and disease states.
- Conduct pre-participation health screenings and fitness assessments; analyze, interpret, and communicate results; and develop, implement, and instruct individualized training programs for a variety of populations and disease states.
- Develop and implement behavioral and motivational strategies, that incorporate effective communication and educational resources, to optimize participants' adoption and adherence to exercise, fitness, and nutritional programs and other healthy behaviors.
- Create emergency procedures, injury prevention programs and risk assessments for clients, staff, facilities, and business entities.
- Demonstrate knowledge in business management, marketing, and leadership to effectively operate a fitness facility while following safety and legal guidelines, standards and regulations.
- Qualify for national certification exams such as the American College of Sports Medicine's (ACSM) Certified Exercise Physiologist and/or National Strength and Conditioning Association's (NSCA)
- Integrate and apply evidence-based decision-making and critical thinking skills to improve the outcomes of the client.

Curriculum: 4 Years, 135 Credits

Course	Title	Credits
First Year		
Fall		
FYS 100	Pathways Seminar	1
CHEM 103	Chemistry I	3
AVIS 101	American Visions	3
CHEM 103L	Chemistry I Lab	1
MATH 102 or MATH 110	Pre-Calculus or Pre-Calculus for Sci & Engrs	3-4
PSYC 101	Intro to Psychology	3
BIO 103	Biology I Laboratory	1
BIOL 103	Biology I	3
Credits		18-19
Spring		
EXSC 110	Intro to Exercise Science	1
WRIT 101AC	Writing Seminar I: Written Com	3
PSYC 253	Developmental Psych	3
CHEM 104	Chemistry II	3
CHEM 104L	Chemistry II Lab	1
BIO 104	Biology II Laboratory	1
General Elective		3
BIOL 104	Biology II	3
Credits		18
Second Year		
Fall		
General Elective		3
GDIV 2XX	Global Diversity (Incl world languages)	3
PHY 101	Physics I	3
PHY 103	Physics I Laboratory	1
STAT 220 or BIOL 312	Stats for the Behavioral Sci or Biostatistics	3
WRIT 201	Writing Seminar II: Multi Comm	3
Credits		16
Spring		
General Elective		3
GCIT 2XX	Global Citizenship (Incl world languages)	3
ETHIC 2XX	Ethics	3
EXSC XXX	American Diversity	3
EXSC 210	Developing the Interprof Team	1
PHY 102	Physics II	3
PHY 104	Physics II Laboratory	1
Credits		17
Third Year		
Fall		
Integrative Seminar		3
BIO 201	Anatomy&Physiology I	3
BIO 202	Anatomy&Physiology I Lab	1
CGIS 300	Contemporary Global Issues	3
EXSC 312	Psych Theory of Hlth & Exerc	3
EXSC 311	Sports Nutrition	3
EXSC 313	Safety, First Aid & Inj Preven	3
Credits		19
Spring		
BIO 203	Anatomy & Physiology II	3
BIO 204	Anatomy & Physiology II Lab	1
EXSC 330	Internship I	3
EXSC 310	Exercise Physiology	3
General Elective		3
PHIL 499	Philosophies of the Good Life	3

2 Exercise Science (BS)

Course	Title	Credits
BIOL 201L	Human Anat & Physiology I Lab	1
Credits		17
Fourth Year		
Fall		
EXSC 301	Biomechanics	3
EXSC 402	Coaching: Strength Training	3
EXSC 430	Internship II	6
EXSC 405	Fitness Assessment	3
Credits		15
Spring		
EXSC 410	Exercise for Spec Populations	3
EXSC 412	Found of Strength & Condition	3
EXSC 414	Bus & Leadership in Ex Sci	3
EXSC 401	Exercise Prescription	3
EXSC 416	Research Methods	3
Credits		15
Total Credits		135-136