Exercise Science: Bachelor of Science (B.S.)

Degree Type
Bachelor of Science

The exercise science major works within the philosophical framework of an exercise and sport sciences model and focuses on the study of human movement as it relates to enhanced motor performance and improved health and fitness. This course of study integrates classroom, laboratory, internship and research experiences that provide students with the necessary disciplinary knowledge and practical skills to develop programs that enhance healthy lifestyles and improved motor performance.

Learning Outcomes

Exercise Science students will:

- Identify the anatomical structures and describe the physiological functions of the human body as well as assess the responses of the body to exercise, training and performance (American College of Sports Medicine ACSM guidelines 2020).
- Explain the psychological factors related to exercise behavior and apply these principles in the design of programs.
- Describe hypokinetic/chronic diseases and the role that physical activity plays in altering risks and symptoms.
- Utilize various assessments for health/fitness evaluations.
- Design exercise and performance programs for healthy populations.
- Explain nutritional principles and body composition as it relates to health and physical activity.
- Explain and apply the mechanical principles related to human movement.
- Instruct individuals on proper exercise techniques.
- Have foundational science knowledge and skills relevant to an understanding of the responses of the body to physical activity.
- Describe principles and concepts of business, management, administration and legal issues as they relate to the field of exercise science

Exercise Science B.S. Progress to Completion Requirements:

Item #	Title	Credits
BIO 205	Human Anatomy and Physiology I (+lab)	4.0
BIO 206	Human Anatomy and Physiology II (+lab)	4.0
CHE 101	Principles of Chemistry I (+lab)	4.0
ESS 100	Personal Health and Wellness	4.0
ESS 211	Nutrition Principles	4.0
ESS 221	Applied Anatomy & Resistance Training	2.0
ESS 225	Introduction to Exercise Science and Health Sciences	4.0
ESS 285	Internship Exercise and Sport Sciences	2.0-4
ESS 313	Fitness Management	4.0
ESS 318	Strength and Conditioning	4.0
ESS 323	Applied Kinesiology and Clinical Technique	4.0
ESS 324	Exercise Physiology (+lab)	4.0
ESS 421	Exercise Prescription (+lab)	4.0
ESS 485	Internship in Exercise and Sport Sciences	5.0-12
ESS 487	Research in ESS: Critical Components	2.0
ESS 488	Research in ESS: Assessment and Analysis	2.0
	MAT 206 or MAT 220	4
PSY 303	Sport and Exercise Psychology	4.0
	ESS Elective Courses	8

Suggested Registration Sequence

First Year - Fall

Item #	Title	Credits
FYE 101	First Year Experience	4.0
WRT 101	Introduction to Academic Writing	4.0
ESS 100	Personal Health and Wellness	4.0
ESS 225	Introduction to Exercise Science and Health Sciences	4.0

First Year - Spring

Item #	Title	Credits
BIO 205	Human Anatomy and Physiology I (+lab)	4.0
ESS 105	First Aid and CPR	1.0
ESS 211	Nutrition Principles	4.0
	MAT 206 or MAT 220	4
	Lib Ed - Liberal Education Core Course	4

Sophomore Year - Fall

Item #	Title	Credits
BIO 206	Human Anatomy and Physiology II (+lab)	4.0
CHE 101	Principles of Chemistry I (+lab)	4.0
ESS 221	Applied Anatomy & Resistance Training	2.0
	Lib Ed - Liberal Education Core Course	4

Sophomore Year - Spring

Item #	Title	Credits
ESS 313	Fitness Management	4.0
PSY 303	Sport and Exercise Psychology	4.0
	Liberal Education Core Course or ESS Elective Course	4

Junior Year - Fall

Item #	Title	Credits
ESS 324	Exercise Physiology (+lab)	4.0
	ESS Elective Course or Free Elective Course	4
	IE - Integrative Experience Course	4
	ESS 285 or Free Elective Course	2-4

Junior Year - Spring

Item #	Title	Credits
ESS 318	Strength and Conditioning	4.0
ESS 323	Applied Kinesiology and Clinical Technique	4.0
ESS 421	Exercise Prescription (+lab)	4.0
	ESS Elective Course	4

Senior Year - Fall

Item #	Title	Credits
ESS 487	Research in ESS: Critical Components	2.0
	ESS Elective Course	4
	Lib Ed - Liberal Education Core Course	4
	ESS 485 or Free Elective Course	2-12

Senior Year - Spring

Item #	Title	Credits
ESS 488	Research in ESS: Assessment and Analysis	2.0
ESS 323	Applied Kinesiology and Clinical Technique	4.0
ESS 421	Exercise Prescription (+lab)	4.0
	ESS Elective Course or ESS 485	4-12