

# B.S. IN EXERCISE PHYSIOLOGY

## Program Overview

The Undergraduate program in Exercise Physiology at the University of Miami, is designed for students to acquire a sound knowledge base in the sciences followed by the application of that knowledge base to human movement, exercise and sports performance. Clinical laboratory experiences supplement applied scientific theory in a rigorous academic setting.

- Students may pursue a pre-med track concurrent with the Exercise Physiology major and should inform their advisor if selecting this track.
- Students are required to complete a minimum of 8 credits in chemistry. The academic advisor will advise on the correct sequence of chemistry based on the individual student's career goals.
- Exercise Physiology requires that students maintain a major GPA of 2.75. Students with a major GPA below 2.75 will have one semester to raise their GPA to meet the requirement. Failure to do so may lead to dismissal from the major.
- Students transferring from another college or university must have a cumulative GPA of 3.0 or above in order to be considered for admission to the major.
- Students who meet the above requirements and select Exercise Physiology as their major, must transfer into the School of Education and Human Development and set Exercise Physiology as the first major.
- A grade of "C" or better is required for each course applied toward the major. Students are allowed to retake a course one time.
- All 100 level courses and KIN 202, KIN 212 are open to non-majors. All other courses are open to majors and minors only. KIN 202 is only open to science majors.
- Students **MAY NOT** take KIN 150 and KIN 202 as course material overlaps.
- All 300- and 400-level courses except those in a STEM cognate, are restricted to declared Exercise Physiology majors only.
- KIN 399 should be taken in the Spring semester of the junior year.
- Seniors are required to participate in the General Education Assessment prior to graduation as part of the SACSCOC accreditation review process.

## Honors Program in Exercise Physiology (HPEP)

KIN 458 will be available for honors credit for Exercise Physiology students provided the following stipulations are met:

1. The course is under the direction of a full-time faculty member in Exercise Physiology.
2. The student completes an honors project permission form and submits this form to the instructor within the first three weeks of the semester.
3. The student completes assigned writing credit work by the end of the semester.
4. Assignments completed for honors credit hour are sent to the University of Miami Writing Center for review.

The University of Miami currently offers an accelerated programs for undergraduate Exercise Physiology majors who want to obtain a Master's Degree in Exercise Physiology, Strength & Conditioning/Fitness Entrepreneurship, or Nutrition for Health & Human Performance. This can be done by taking one additional year of graduate courses. These students must take two graduate courses in Exercise Physiology in their senior undergraduate year in order to earn an M.S.Ed. degree in one additional year. Please visit our website (<http://www.education.miami.edu>) for additional information on the accelerated master's programs. To be eligible students must apply for admission to the accelerated master's program no later than the end of the Fall semester of their senior year.

## Curriculum Requirements

Code	Title	Credit Hours
<b>Major Requirements 48 Credits</b>		
KIN 202	Applied Nutrition for Health and Performance	3
KIN 212	Elements of Sports Psychology	3
KIN 221	Exercise Physiology: Biochemistry and Skeletal Muscle	3
KIN 222	Neuromuscular Physiology Laboratory	3
KIN 232	Basic Human Physiology	3
KIN 233	Basic Anatomy Lab	2
KIN 321	Introduction to Systemic Exercise Physiology	3
KIN 322	Cardiorespiratory and Metabolic Laboratory	3
KIN 344	Gross Anatomy for Kinesiology and Sport Sciences	3
KIN 345	Kinesiology	3
KIN 365	Exercise Programming	3
KIN 366	Exercise Physiology Laboratory: Assessment	3
KIN 399	Neuromuscular Basis for Training	3

KIN 421	Advanced Systemic Exercise Physiology	3
KIN 457	Practicum in Kinesiology and Sport Sciences	3
KIN 477	Advanced Nutrition for Health and Fitness	3
<b>Chemistry Requirement <sup>1</sup></b>		
Choose one of the following combinations:		8
Combination 1		
CHM 111 & CHM 113	Principles of Chemistry I and Chemistry Laboratory I	
CHM 112 & CHM 114	Principles of Chemistry II and Chemistry Laboratory II	
Combination 2		
CHM 103	Chemistry for the Health Sciences I	
CHM 104 & CHM 105	Chemistry for the Health Sciences II and Chemistry for the Health Sciences I (Laboratory)	
Combination 3		
CHM 111 & CHM 113	Principles of Chemistry I and Chemistry Laboratory I	
CHM 104 & CHM 106	Chemistry for the Health Sciences II and Chemistry for the Health Sciences II (Laboratory)	
<b>Calculus</b>		
MTH 161	Calculus I	4
<b>Statistics and Research Methods</b>		
EPS 351	Introduction to Statistics and Research Design	3
KIN 415		3
<b>General Education Requirements</b>		
Written Communication Skills:		
WRS 105	First-Year Writing I	3
WRS 106 or WRS 107 or ENG 106	First-Year Writing II First-Year Writing II: STEM Writing About Literature and Culture	3
Quantitative Skills:		
MTH 161	Calculus I (fulfilled through the Calculus requirement)	
Areas of Knowledge:		
Arts & Humanities Cognate		9
People & Society Cognate		9
STEM Cognate (9 credits) (fulfilled through the major)		
<b>Additional Required Courses</b>		
UMX 100	The University of Miami Experience	0
Electives/Pre-Med		16
Minor/Pre-Med		15
<b>Total Credit Hours</b>		<b>120</b>

<sup>1</sup> All students who are majoring in Exercise Physiology must earn 8 credit hours TOTAL in chemistry. The chemistry requirement may be fulfilled by any 8 credit hours in chemistry, provided that the courses are not repeated or considered an equivalent of one another. Please see an advisor for proper chemistry course placement.

## Suggested Plan of Study

Year One		Credit Hours
<b>Fall</b>		
KIN 202	Applied Nutrition for Health and Performance	3
KIN 232	Basic Human Physiology	3
KIN 233	Basic Anatomy Lab	2
Choose one of the following:		4

CHM 111 & CHM 113	Principles of Chemistry I and Chemistry Laboratory I	
CHM 103 & CHM 105	Chemistry for the Health Sciences I and Chemistry for the Health Sciences I (Laboratory)	
WRS 105	First-Year Writing I	3
UMX 100	The University of Miami Experience	0
<b>Credit Hours</b>		<b>15</b>
<b>Spring</b>		
KIN 212	Elements of Sports Psychology	3
KIN 221	Exercise Physiology: Biochemistry and Skeletal Muscle	3
KIN 222	Neuromuscular Physiology Laboratory	3
Choose one of the following:		4
CHM 112 & CHM 114	Principles of Chemistry II and Chemistry Laboratory II	
CHM 104 & CHM 106	Chemistry for the Health Sciences II and Chemistry for the Health Sciences II (Laboratory)	
WRS 106, 107, or ENG 106	First-Year Writing II or First-Year Writing II: STEM or Writing About Literature and Culture	3
<b>Credit Hours</b>		<b>16</b>
<b>Year Two</b>		
<b>Fall</b>		
KIN 321	Introduction to Systemic Exercise Physiology	3
KIN 322	Cardiorespiratory and Metabolic Laboratory	3
MTH Per Placement OR Elective		3
Cognate Course		3
Minor/Pre-Med Course		3
<b>Credit Hours</b>		<b>15</b>
<b>Spring</b>		
KIN 344	Gross Anatomy for Kinesiology and Sport Sciences	3
KIN 345	Kinesiology	3
MTH Per Placement OR Elective		3
Cognate Course		3
Minor/Pre-Med Course		3
<b>Credit Hours</b>		<b>15</b>
<b>Year Three</b>		
<b>Fall</b>		
KIN 366	Exercise Physiology Laboratory: Assessment	3
MTH 161	Calculus I	4
Cognate Course		3
Minor/Pre-Med Course		3
Elective/Pre-Med Course		3
<b>Credit Hours</b>		<b>16</b>
<b>Spring</b>		
KIN 365	Exercise Programming	3
EPS 351	Introduction to Statistics and Research Design	3
Cognate Course		3
Minor/Pre-Med Course		3
KIN 399	Neuromuscular Basis for Training	3
<b>Credit Hours</b>		<b>15</b>
<b>Year Four</b>		
<b>Fall</b>		
KIN 416	Research Methods in Exercise Physiology	3

KIN 421	Advanced Systemic Exercise Physiology	3
Cognate Course		3
Minor/Pre-Med Course		4
<b>Credit Hours</b>		<b>13</b>
<b>Spring</b>		
KIN 457	Practicum in Kinesiology and Sport Sciences	3
Cognate Course		3
Minor/Pre-Med Course		3
Minor/Pre-Med Course		3
KIN 477	Advanced Nutrition for Health and Fitness	3
<b>Credit Hours</b>		<b>15</b>
<b>Total Credit Hours</b>		<b>120</b>

## Mission

The mission of the Exercise Physiology, B.S., is to provide a fundamental working knowledge of the field in order to obtain a career in outside employment, work in professional services and/or enter higher institutions of learning in this or other health-related fields.

## Student Learning Outcomes

- Students will demonstrate the ability to critique research evidence in key areas of human physiology, which pertain to optimal health and the etiology of common disease.
- Students will be able to explain the physiological bases for a test accurately describe test administration procedures, interpret data collected during each laboratory session and explain these results as they relate to their own performance and in comparison to specific clinical populations and discuss the importance of each test as an acute and chronic measure of performance.