

# EXERCISE SCIENCE MAJOR, CLINICAL AND PRE- PROFESSIONAL STUDIES CONCENTRATION (B.S.)

Exercise Science is a multi-disciplinary program that applies scientific knowledge from anatomy, physiology, biology, chemistry, psychology, motor control, and biomechanics to understand how the human body functions during physical activity, and how the body adapts to exercise training. The Exercise Science program prepares students to acquire skills in fitness evaluation, exercise program design, and instructing functional movement patterns. Students who want to enter the undergraduate Exercise Science degree must choose one of two concentrations, Sports Conditioning or Clinical and Pre-Professional Studies.

## About the Concentration in Clinical and Pre-Professional Studies

The objective of the Clinical and Pre-Professional Studies concentration within the Exercise Science major is to prepare students for entry into clinical fields and/or graduate education. The Clinical & Pre-Professional Studies concentration focuses on developing knowledge and skills that are required for allied health professionals and professional degree graduate education.

## Admission Requirements

- Incoming freshman may declare the Clinical and Pre-Professional Studies concentration upon admission.
- Students with an established GPA at Montclair State University or another institution must have a minimum GPA of 2.75 to be admitted into the Clinical and Pre-Professional Studies concentration.

Students with more than 60 credits may be admitted into the Clinical and Pre-Professional Studies concentration by departmental permission

## Program Requirements Overview

Code	Title	Credits
	General Education Requirements	30
	World Languages and Cultures Requirements	3-9
	Major Requirements	67
	Free Electives <sup>1</sup>	20-14
	<b>Total Credits</b>	<b>120</b>

<sup>1</sup> Graduate Swing courses will count toward Free Electives for students in combined degree programs.

## Major Requirements

Code	Title	Credits
<b>Required Theory Courses</b>		
HLTH 101	Personal Health Issues	3
HPEM 150	Principles and Practice of Emergency Care	3
HPEM 199	Freshman Seminar in Health and Physical Education	1
EXSC 255	Research Methods and Data Interpretation	3

EXSC 300	Seminar I in Exercise Science	2
PEMJ 320	Physiology of Exercise	4
PEMJ 321	Kinesiology	3
PEMJ 324	Basic Motor Learning	3
<b>Required Activity Courses</b>		
PEMJ 131	Fitness Activities	3
EXSC 234	Leadership in Anaerobic Exercise	3
EXSC 331	Exercise Assessment and Prescription	4
<b>Theory Specialization Core</b>		
EXSC 430	Exercise for Special Populations	3
EXSC 475	Foundations and Practices in Cardiac Rehabilitation	3
<b>Exercise Science Collateral Courses</b>		
BIOL 112	Principles of Biology I	4
BIOL 244	Anatomy and Physiology I	4
BIOL 245	Anatomy and Physiology II	4
CHEM 120	General Chemistry I	4
NUFD 182	Nutrition: A Socioecological Perspective	3
PHYS 193	College Physics I	4
PSYC 101	Introduction to Psychology	3
STAT 109	Statistics	3
<b>Total Credits</b>		<b>67</b>

All students must also fulfill the university general education requirements and complete 120 credits. Recommended free electives for those interested in PA, PT and OT: General Chemistry II CHEM 121 (4), College Physics II PHYS 194 (4), Principles of Biology II BIOL 113 (4). For AT programs: ATTR 101(3), ATTR 240 (3). Other recommendations for free electives will be advised (e.g. EXSC 476 and EXSC 480). Those who do not pass the math readiness exam and chemistry readiness exam must take MATH 100 as prerequisite for BIOL 112, CHEM 120, and PHYS 193. Those who do not pass the chemistry readiness exam must take CHEM 106 before CHEM 120.

## General Education Requirements

Click here for a list of courses that fulfill General Education categories. (<http://catalog.montclair.edu/undergraduate-graduate-degree-requirements/general-ed-ba-bs/>)

Code	Title	Credits
<b>A. New Student Seminar</b>		
HPEM 199	Freshman Seminar in Health and Physical Education (Fulfilled in the major.)	
<b>C. Communication</b>		
	1. Writing	3
	2. Literature	3
	3. Communication	3
<b>D. Fine and Performing Arts</b>		
	Complete a 3 credit Fine and Performing Arts course.	3
<b>F. Humanities</b>		
	1. Great Works and Their Influences	3
	2. Philosophical and Religious Perspectives	3
<b>G. Computer Science</b>		
	Complete a 3 credit Computer Science course.	3
<b>H. Mathematics</b>		

STAT 109	Statistics (Fulfilled in the major.)	
<b>I. Natural Science Laboratory</b>		
BIOL 244	Anatomy and Physiology I (Fulfilled in the major.)	
<b>J. Physical Education</b>		
Fulfilled by major requirements.		
<b>K. Social Science</b>		
1. American and European History		3
2. Global Cultural Perspectives		3
3. Social Science Perspectives		
PSYC 101	Introduction to Psychology (Fulfilled in the major.)	
<b>L. Interdisciplinary Studies</b>		
Complete a 3 credit Interdisciplinary Studies course.		3
<b>Total Credits</b>		<b>30</b>

## World Languages and Cultures Requirements

Click here for a list of courses that fulfill World Languages and Cultures categories. (<http://catalog.montclair.edu/undergraduate-graduate-degree-requirements/world-languages-cultures-requirement/>)

Code	Title	Credits
<b>World Languages</b>		
Based on language placement exam, complete one or two sequential courses in the same language.		3-6
<b>World Cultures</b>		
Requirement may be fulfilled by course selected in General Education - Social Science: Global Cultural Perspectives.		0-3
<b>Total Credits</b>		<b>3-9</b>

## Recommended Roadmap to Degree Completion

This recommended four-year plan is provided as an outline for students to follow in order to complete their degree requirements within four years. This plan is a recommendation and students should only use it in consultation with their academic advisor.

Course	Title	Credits
<b>First Year</b>		
<b>Fall</b>		
GENERAL EDUCATION: (C1) Writing		3
GENERAL EDUCATION: (C3) Communication		3
BIOL 244	Anatomy and Physiology I	4
HPEM 199	Freshman Seminar in Health and Physical Education	1
PEMJ 131	Fitness Activities	3
<b>Credits</b>		<b>14</b>
<b>Spring</b>		
GENERAL EDUCATION: (C2) Literature		3

BIOL 245	Anatomy and Physiology II	4
HLTH 101	Personal Health Issues	3
HPEM 150	Principles and Practice of Emergency Care	3
MATH 100	Math for Business and Social Sciences (or Free Elective)	3
STAT 109	Statistics	3
<b>Credits</b>		<b>19</b>

<b>Second Year</b>		
<b>Fall</b>		
GENERAL EDUCATION: (F2) Humanities – Philosophical and Religious Perspectives		3
World Language 1		3
EXSC 255	Research Methods and Data Interpretatio	3
PHYS 193	College Physics I	4
PSYC 101	Introduction to Psychology	3
<b>Credits</b>		<b>16</b>
<b>Spring</b>		
World Language 2		3
NUFD 182	Nutrition: A Socioecological Perspective	3
PEMJ 320	Physiology of Exercise	4
CHEM 106	Principles of Chemistry (or Free Elective)	3
Free Elective <sup>1</sup>		3
<b>Credits</b>		<b>16</b>

<b>Third Year</b>		
<b>Fall</b>		
GENERAL EDUCATION: (D) Fine and Performing Arts		3
CHEM 120	General Chemistry I	4
EXSC 331	Exercise Assessment and Prescription	4
PEMJ 321	Kinesiology	3
<b>Credits</b>		<b>14</b>
<b>Spring</b>		
GENERAL EDUCATION: (G) Computer Science		3
GENERAL EDUCATION: (K1) Social Science – American and European History		3
World Cultures		3
PEMJ 324	Basic Motor Learning	3

Free Elective <sup>1</sup>		3
<b>Credits</b>		<b>15</b>
<b>Fourth Year</b>		
<b>Fall</b>		
GENERAL EDUCATION: (K2) Social Science – Global Cultural Perspectives		3
GENERAL EDUCATION: (L) Interdisciplinary Studies		3
BIOL 112	Principles of Biology I	4
EXSC 300	Seminar I in Exercise Science	2
EXSC 234	Leadership in Anaerobic Exercise	3
<b>Credits</b>		<b>15</b>
<b>Spring</b>		
GENERAL EDUCATION: (F1) Humanities – Great Works and Their Influences		3
EXSC 430	Exercise for Special Populations	3
EXSC 475	Foundations and Practices in Cardiac Rehabilitation	3
Free Elective		2-0
Free Elective <sup>1</sup>		3
<b>Credits</b>		<b>14-12</b>
<b>Total Credits</b>		<b>123-121</b>

<sup>1</sup> Recommended free electives for those interested in PA, PT and OT: General Chemistry II CHEM 121 (4), College Physics II PHYS194 (4), Principles of Biology II BIOL 113 (4). For AT programs: ATTR 101(3), ATTR 240 (3). Other recommendations for free electives will be advised (e.g. EXSC 476 and EXSC 480). Those who do not pass the math readiness exam and chemistry readiness exam must take MATH 100 as prerequisite for BIOL 112, CHEM 120, and PHYS 193. Those who do not pass the chemistry readiness exam must take CHEM 106 before CHEM 120.