

# EXERCISE SCIENCE - PRE-PROFESSIONAL, INTEGRATIVE PHYSIOLOGY B.S.

## Bachelor of Science - Integrative Physiology; Exercise Science - Pre-Professional Concentration

### General Education Requirements

Information regarding these requirements can be found in the General Education Section (<http://catalog.umn.edu/academics/general-education-requirements/>) of the catalog.

#### Summary

Code	Title	Hours
Lower-Division Departmental Required Courses		9
Outside Major Lower-Division Required Courses		38-45
Upper-Division Departmental Required Courses		22
Outside Major Upper-Division Required Courses		8
Elective Courses		18
<b>Total Hours</b>		<b>95-102</b>

Degree Specific Credits: 95-102

Required Cumulative GPA: 2.0

#### Lower-Division Departmental Required Courses

Code	Title	Hours
<b>Complete all of the following courses:</b>		
KIN 201	Basic Exercise Prescription	3
KIN 205	Foundations of HHP	3
NUTR 221N	Basic Human Nutrition	3
<b>Total Hours</b>		<b>9</b>

Minimum Required Grade: C-

#### Outside Major Lower-Division Required Courses

**Notes:** Students interested in medical or dental school should replace CHMY 121N, CHMY 123 and CHMY 124 with CHMY 141N/CHMY 142N and CHMY 223/CHMY 224. Students interested in physical therapy or other graduate medical professions generally take CHMY 121N, CHMY 123 and CHMY 124. Students should talk to the IPAT advisors prior to starting a chemistry series.

Code	Title	Hours
<b>Complete one of the following courses:</b>		
BIOH 112	Human Form and Function I	3
BIOH 113	Human Form and Function II	
BIOB 160N	Principles of Living Systems	

**Complete all of the following courses:**

BIOB 170N	Principles of Biological Diversity	3
BIOB 171N	Principles of Biological Diversity Lab	2
<b>General Chemistry - Complete one of the following:</b>		<b>3-5</b>
CHMY 121N	Introduction to General Chemistry	
CHMY 141N & CHMY 142N	College Chemistry I and College Chemistry I Lab	
CHMY 143N & CHMY 144N	College Chemistry II and College Chemistry II Lab	
<b>Organic and Biochemistry - Complete one of the following series:</b>		
CHMY 123 & CHMY 124	Introduction to Organic and Biochemistry and Introduction to Organic and Biochemistry Lab	<b>4-6</b>
CHMY 221 & CHMY 222	Organic Chemistry I and Organic Chemistry I Lab	
CHMY 223 & CHMY 224	Organic Chemistry II and Organic Chemistry II Lab	
<b>Mathematics - Complete one of the following:</b>		
M 121 & M 122	College Algebra and College Trigonometry	<b>4-6</b>
M 151	Precalculus	
M 162	Applied Calculus	
M 171	Calculus I	
<b>Complete one of the following physics sequences:</b>		<b>10</b>
<b>Algebra- and Trigonometry-based:</b>		
PHSX 205N & PHSX 206N	College Physics I and College Physics I Laboratory	
PHSX 207N & PHSX 208N	College Physics II and College Physics II Laboratory	
<b>Calculus-based:</b>		
PHSX 215N & PHSX 216N	Fundamentals of Physics with Calculus I and Physics Laboratory I with Calculus	
PHSX 217N & PHSX 218N	Fundamentals of Physics with Calculus II and Physics Laboratory II with Calculus	
<b>Complete one of the following courses:</b>		<b>3-4</b>
STAT 216	Introduction to Statistics (must be pre- approved by advisor)	
PSYX 222	Psychological Statistics (must be pre- approved by advisor)	
SOCI 202	Social Statistics (must be pre-approved by advisor)	
EDU 421	Statistical Procedures in Education (must be pre-approved by advisor)	
<b>Complete all of the following courses:</b>		
COMX 111A	Introduction to Public Speaking	3
PSYX 100S	Intro to Psychology	3
<b>Total Hours</b>		<b>38-45</b>

Minimum Required Grade: C-

## Upper-Division Departmental Required Courses

Code	Title	Hours
<b>Complete all of the following courses:</b>		
HTH 475E	Legal and Ethical Issues Health and Exercise Professions	3
KIN 320	Exercise Physiology	3
KIN 321	Exercise Physiology Lab	1
KIN 330	Motor Learning and Control	3
KIN 447 or AHAT 342	Analytical & Communicative Techniques Therapeutic Interventions	3
KIN 460	ECG Assessment	2
KIN 483	Exercise Disease & Aging	3
KIN 484	Exercise Disease & Aging Lab	1
KIN 498 or KIN 499	Internship Capstone	3-6
<b>Total Hours</b>		<b>22-25</b>

Minimum Required Grade: C-

## Outside Major Upper-Division Required Courses

**Notes:** Students are required to take either BIOH 112 OR BIOH 113 OR BIOB 160N prior to taking Anatomy and Physiology. Students who take the BIOH 201N and BIOH 211N Anatomy and Physiology series may need to take additional upper division credits beyond the courses required in this concentration to meet the university of Montana requirement of 39 upper-division credits for graduation.

Code	Title	Hours
<b>Complete one of the following Anatomy and Physiology sequences:</b>		<b>8</b>
<b>University of Montana - Mountain Campus</b>		
BIOH 365 & BIOH 366	Human Anatomy and Physiology for Health Professions I and Human Anatomy and Physiology for Health Professions I Laboratory	
BIOH 370 & BIOH 371	Human Anatomy and Physiology for Health Professions II and Human Anatomy and Physiology for Health Professions II Laboratory	
<b>Missoula College</b>		
BIOH 201N & BIOH 211N	Human Anatomy & Physiology I and Human Anatomy and Physiology II	
<b>Total Hours</b>		<b>8</b>

Minimum Required Grade: C-

## Elective Courses

Code	Title	Hours
<b>Complete the following elective credits:</b>		<b>18</b>
Electives require adviser consent. Students should take an appropriate number of upper-division electives to achieve 39 upper-division credits, per UM graduation requirements. Students should use elective courses to meet the additional prerequisite course requirements of graduate programs they are interested in attending.		

Minimum Required Grade: C-