

# Exercise Science

## Exercise Science Major

The Exercise Science major is accredited by the Commission on Accreditation of Allied Health Education Programs and endorsed by the American College of Sports Medicine. This curriculum covers the knowledge, skills, and abilities expected of an ACSM Certified Exercise Physiologist.

The Exercise Science major is designed to prepare students for entry-level positions in any of four health fitness settings: commercial, community, corporate, and clinical. Completion of the major will also act as a stepping stone to prepare the exceptional student for graduate education in exercise physiology/science, cardiac rehabilitation, physical therapy, sports nutrition, sports medicine, biomechanics, and other allied health professions.

The Exercise Science program includes a wide range of content from the study of physical activity and the associated acute and chronic physiological adaptations and responses to it, to health-fitness business management principles found in facilities worldwide. Majors are encouraged to select a minor in business, psychology, or other areas depending on their interests. Field experiences and a semester-long internship experience completed at the end of the Exercise Science major afford the student an opportunity to select an area of specialization in the field from sites available throughout the country.

Students are encouraged to pursue appropriate professional certification from the American College of Sports Medicine, The National Strength and Conditioning Association, or The American Council on Exercise.

## Pre-Professional/Professional Emphasis

Students are admitted to the Pre-Professional emphasis in Exercise Science when declaring the major. The Pre-Professional emphasis encompasses the freshman year and fall semester of the sophomore year; transfer students are also placed in the Pre-Professional emphasis upon acceptance to the university. Entrance into the Professional Emphasis occurs during the third semester of attendance for students who entered as freshmen; for transfer students, entrance occurs after the first semester of attendance.

Application guidelines are provided during HNES 170 Introduction to Exercise Science and during advising sessions with freshmen, as well as on the Exercise Science ([https://www.ndsu.edu/hnes/exercise\\_science](https://www.ndsu.edu/hnes/exercise_science)) web site. The following requirements must be met before beginning the professional course (sophomore, junior and senior level courses with prefix HNES) of study:

1. Successful completion of HNES 170 Introduction to Exercise Science with a grade of 'B' or better
2. Successful completion of BIOL 220 Human Anatomy and Physiology I/BIOL 220L Human Anatomy and Physiology I Laboratory with a grade of 'B' or better
3. Successful completion of MATH 103 College Algebra or MATH 104 Finite Mathematics or higher with a grade of 'B' or better
4. Successful completion of CHEM 121 General Chemistry I/CHEM 121L General Chemistry I Laboratory with a grade of 'B' or better
5. Minimum NDSU cumulative GPA of 3.00 or higher

## Retention Standards

Students must meet the following retention standards (per semester) in order to maintain their status in the Exercise Science professional phase.

1. No more than two 'C' and no 'D' or 'F' grades may be earned in Exercise Science major classes.
2. Maintain a NDSU cumulative GPA of 3.00 on a 4.00 scale.

## Exercise Science Major/Master of Athletic Training Program

Students who wish to attend NDSU for athletic training are advised to pursue this five-year program. The students will major in Exercise Science for their undergraduate degree and apply to the Master of Athletic Training (MATrg) graduate program to complete this program. Upon completion, the graduates will be able to take the Board of Certification (BOC) exam, earn the ATC credential and pursue employment as an athletic trainer.

## Major Requirements

### Major: Exercise Science

**Degree Type:** B.S.

**Required Degree Credits to Graduate:** 122

### General Education Requirements

#### First Year Experience (F):

HD&E 189	Skills for Academic Success (Students transferring in 24 or more credits do not need to take HD&E 189.)	1
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#### Communication (C):

ENGL 110	College Composition I	3
ENGL 120	College Composition II	3

One Course Upper Level Writing. Select from current general education list.		3
COMM 110	Fundamentals of Public Speaking	3
<b>Quantitative Reasoning (R):</b>		
STAT 330	Introductory Statistics	3
<b>Science &amp; Technology (S):</b>		
BIOL 220 & 220L	Human Anatomy and Physiology I and Human Anatomy and Physiology I Laboratory *	4
CHEM 121	General Chemistry I *	3
CSCI 114 or CSCI 116	Microcomputer Packages Business Use of Computers	3-4
<b>Humanities &amp; Fine Arts (A): Select from current general education list</b>		6
<b>Social &amp; Behavioral Sciences (B):</b>		
PSYC 111	Introduction to Psychology	3
PSYC 211	Introduction To Behavior Modification	3
<b>Wellness (W):</b>		
HNES 250	Nutrition Science	3
<b>Cultural Diversity (D): Select from current general education list</b>		
<b>Global Perspectives (G): Select from current general education list</b>		
<b>Total Credits</b>		<b>41-42</b>

## Major Requirements

<b>General Education Requirements</b>		40
<b>Exercise Science Requirements</b>		
BIOL 221 & 221L	Human Anatomy and Physiology II and Human Anatomy and Physiology II Laboratory	4
CHEM 121L	General Chemistry I Laboratory *	1
CHEM 122 & 122L	General Chemistry II and General Chemistry II Laboratory	4
HNES 170	Introduction to Exercise Science *	2
HNES 210	Professional Rescuer CPR/AED and First Aid	1
HNES 365	Kinesiology	3
HNES 368	Biomechanics of Exercise	3
HNES 370	Exercise and Disease	3
HNES 371	Worksite Health Promotion	3
HNES 374	Methods in Resistance Training and Cardiovascular Conditioning	3
HNES 375	Research Methods and Design in Exercise Science	3
HNES 465	Physiology Of Exercise	3
HNES 466	Physiology Exercise Laboratory	1
HNES 472	Exercise Assessment and Prescription	3
HNES 475	Exercise Science Internship	12
HNES 476	Exercise Testing Laboratory	2
HNES 491	Seminar	1
HNES 496	Field Experience	1
HNES 496	Field Experience	1
PHYS 211	College Physics I	3
PHYS 211L	College Physics I Laboratory	1
<b>Degree Requirements: Potential of 23 credits to reach 122</b>		<b>23</b>
<b>Total Credits</b>		<b>122</b>

\* Requires a grade of 'B' or better.

## Degree Requirements and Notes

- A cumulative GPA of 3.00 is required for graduation. No more than two grades of 'C' and no 'D' or 'F' grades may be received in Exercise Science major courses.
- With the exception of field experiences, seminar, and internship, courses under the Exercise Science requirements may not be taken Pass/Fail.
- Department Requirements:BIOL 220 Human Anatomy and Physiology I, BIOL 220L Human Anatomy and Physiology I Laboratory, CHEM 121 General Chemistry I, PSYC 111 Introduction to Psychology and PSYC 211 Introduction To Behavior Modification, and HNES 250 Nutrition Science are listed within the General Education categories of Science & Technology, Social & Behavioral Sciences, and Wellness.

The following combinations of courses are suggested semester schedules that allow the student to complete his/her major/option degree program in a four year span. The arrangement of courses is based on which semesters the course is offered, the classification and the prerequisites or co-requisites required for successful completion of the course. The Plan of Study should be used with the curriculum guide. Remember, this is only a guide and circumstances may change the plan.

<b>Freshman</b>			
<b>Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
ENGL 110 or 120 (ENGL 110 includes ENGL 100 lab for 1 credit or placement)	3	COMM 110	3
HD&E 189	1	CSCI 114 or 116	3-4
HNES 170	2	Humanities/Global	3
PSYC 111	3	Electives	6
Electives	6		
	<b>15</b>		<b>15-16</b>
<b>Sophomore</b>			
<b>Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
** See note below		BIOL 221	3
BIOL 220	3	BIOL 221L	1
BIOL 220L	1	CHEM 122	3
CHEM 121 (pre or co-requisite: MATH 103)	3	CHEM 122L	1
CHEM 121L	1	HNES 365	3
PHYS 211 (pre-requisite: MATH 105)	3	STAT 330	3
PHYS 211L	1	Electives	3
HNES 250	3		
	<b>15</b>		<b>17</b>
<b>Junior</b>			
<b>Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
HNES 210	1	HNES 368	3
PSYC 211	3	HNES 370	3
HNES 374	3	HNES 371	3
HNES 375	3	HNES 465	3
HNES 496	1	HNES 466	1
Humanities/Diversity	3	HNES 491	1
		Electives	3
	<b>14</b>		<b>17</b>
<b>Senior</b>			
<b>Fall</b>	<b>Credits</b>	<b>Spring</b>	<b>Credits</b>
Upper Division Writing	3	HNES 475	12

HNES 472	3	
HNES 476	2	
HNES 496	1	
Electives	8	
	<b>17</b>	<b>12</b>

**Total Credits: 122-123**

\*\* Students apply for Exercise Science Professional Status during fall semester of sophomore year.

† Consult your advisor for suggested electives for certain Graduate and Professional programs.