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## EXERCISE SCIENCE BS

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### Exercise Science

College of Allied Health & Nursing

Department of Human Performance  
1400 Highland Center • 507-389-6313  
Website: [www.mnsu.edu/dept/colahn/hp.html](http://www.mnsu.edu/dept/colahn/hp.html)

Chair: Lynnette M. Engeswick

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The Exercise Science major is recognized by the National Strength and Conditioning Association for successfully meeting established educational criteria in strength and conditioning. It is a broad-based, science-oriented major that prepares students to create effective exercise prescriptions and to oversee exercise programs for normally healthy individuals. An Exercise Science major also prepares students for admission to graduate programs in Exercise Physiology, Cardiac Rehabilitation, Sports Psychology, and related areas. Students who have also completed the pre-physical or pre-occupational therapy concentrations in addition to this major have successfully gained admission to graduate programs in those areas.

Exercise science students are not required to complete a minor but may choose to obtain one to gain additional training or expertise.

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#### Academic Map/Degree Plan at [www.mnsu.edu/programs/#All](http://www.mnsu.edu/programs/#All)

#### POLICIES/INFORMATION

**Admission to Program.** Admission to the Exercise Science major is selective and not all students who apply will be accepted. Minimum requirements for application are as follows:

1. Minimum overall grade point average to 2.75
2. Completion of BIOL 330 with a grade of "C" or better
3. Successful completion of at least 32 semester credits

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#### EXERCISE SCIENCE BS

Degree completion = 120 credits

#### Required General Education

ENG 101 Composition (4)  
IT 100 Introduction to Computing and Applications (4)

#### Major Common Core

Students may take HP 466W instead of HP 466.

BIOL 220 Human Anatomy (4)  
BIOL 330 Principles of Human Physiology (4)  
HP 348 Structural Kinesiology and Biomechanics (3)  
HP 414 Physiology of Exercise (3)  
HP 439 Nutrition for Physical Activity and Sport (3)  
HP 456 Athletic Testing and Conditioning (2)  
HP 465 Legal Aspects of Physical Education and Sport (3)  
HP 466 Graded Exercise Testing and Exercise Prescription (3)

#### Major Restricted Electives

(Please select 2 credits from these activity classes)

HP 103 Fitness for Living (1)  
HP 104 Adult Fitness (1)  
HP 105 Beginner and Advanced Beginner Swimming (1)  
HP 107 Orienteering (1)  
HP 114 Billiards and Bowling (1)  
HP 117 Aerobic Conditioning (1)  
HP 130 Self-Defense for Women (1)  
HP 138 Beginning Horsemanship (1)  
HP 139 Winter Survival (1)  
HP 143 Aqua Exercise (1)  
HP 145 Aquatic Conditioning and Water Polo (1)  
HP 146 Intercollegiate Bowling (1)

HP 147 Intercollegiate Cross Country (1)  
HP 148 Intercollegiate Softball (1)  
HP 149 Intercollegiate Volleyball (1)  
HP 150 Intercollegiate Wrestling (1)  
HP 152 Intercollegiate Track and Field (1)  
HP 153 Intercollegiate Swimming (1)  
HP 154 Intercollegiate Football (1)  
HP 155 Intercollegiate Basketball (1)  
HP 156 Intercollegiate Baseball (1)  
HP 157 Intercollegiate Golf (1)  
HP 158 Intercollegiate Tennis (1)  
HP 159 Intercollegiate Hockey (1)  
HP 160 Introduction to Human Performance Studies (2)  
HP 161 Intercollegiate Soccer (1)  
HP 166 Team Game Skills (1)  
HP 174 Individual-Dual Activities (1)  
HP 175 Fitness Activities (1)  
HP 176 Lifetime Activities I (1)  
HP 177 Lifetime Activities II (1)  
HP 178 Social, Folk and Square Dance Techniques (1)  
HP 179 Winter Activities (1)  
HP 180 Introduction to Handball (1)  
HP 181 Advanced Handball (1)  
HP 182 Aquatic Skills (1)  
HP 190 Sport Activities (1)

#### Major Unrestricted Electives

Elective courses (choose 3-6 credits)

Pre-Physical Therapy emphasis requires 3 credits. The General Exercise Science emphasis requires 6 credits. Electives may not be double counted for courses required in the emphases.

BIOL 320 Cell Biology (4)  
BIOL 324 Neurobiology (3)  
BIOL 380 Blood Banking/Urinalysis (3)  
BIOL 417 Biology of Aging and Chronic Diseases (3)  
BIOL 433 Cardiovascular Physiology (3)  
BIOL 466 Principles of Pharmacology (3)  
BIOL 474 Immunology (4)  
CHEM 360 Principles of Biochemistry (4)  
FCS 440 Nutrition II (3)  
FCS 446 Lifespan Nutrition (3)  
HLTH 210 First Aid & CPR (3)  
HLTH 321 Medical Terminology (3)  
HLTH 451 Emotional Health and Stress (3)  
HLTH 455 Health and Aging (3)  
HP 340 Prevention and Care (2)  
HP 341 Athletic Training Techniques (3)  
HP 413 Lifespan Motor Development (2)  
HP 415 Advanced Sports Medicine (2)  
HP 418 Intercultural Competence for Allied Health Professionals (3)  
HP 421 Teaching Sport to Individuals with Disabilities (2)  
HP 440 Medical Aspects of Athletic Training (3)  
HP 441 Organize & Administer (2)  
HP 451 Principles of Coaching (3)  
HP 467 Worksite Wellness Program Development (3)  
HP 470 Psychology of Coaching (3)  
HP 472 Psychology of Sport and Athletic Injury (3)  
PSYC 433 Child Psychology (4)  
PSYC 436 Adolescent Psychology (4)  
PSYC 455 Abnormal Psychology (4)  
PSYC 460 Psychology of Women (3)  
PSYC 466 Psychology of Aging (3)

Required Minor: None.

#### Major Emphasis: General Exercise Science

The General Exercise Science emphases requires a minimum of 3 credits of HP 496 which can be split across semesters. One credit = 50 hours. Students commonly use physical therapy observation hours to fulfill the internship requirement.

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**Required General Education**

CHEM	111	Chemistry of Life Process Part II (Organic & Biochemistry) (5)
FCS	140	Introduction to Nutrition (3)
HLTH	210	First Aid & CPR (3)
MATH	112	College Algebra (4)

**General Exercise Science Core**

HP	160	Introduction to Human Performance Studies (2)
HP	290	Psycho-Social Aspects of Sport (3)
HP	291	Concepts of Fitness (2)
HP	392	Group Exercise Instruction (3)
HP	403	Research Methods & Statistics in Exercise Science (3)
HP	477	Behavior Change Strategies and Foundations (3)
HP	486	Small Group Personal Training (3)
HP	487	Applied Exercise Science (3)

**General Exercise Science Capstone** (choose 3-10 credits)

The General Exercise Science emphasis requires a minimum of 3 credits of HP 496 which can be split across semesters. One credit = 50 hours.

HP	496	Internship (1-10)
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**Major Emphasis: Pre-Physical Therapy**

The Pre-Physical Therapy emphases requires a minimum of 3 credits of HP 496 which can be split across semesters. One credit = 50 hours. Students commonly use physical therapy observation hours to fulfill the internship requirement.

**Required General Education**

BIOL	105	General Biology I (4)
CHEM	201	General Chemistry I (5)
MATH	115	Precalculus Mathematics (4)
PHYS	211	Principles of Physics I (4)
PSYC	101	Introduction to Psychological Science (4)
STAT	154	Elementary Statistics (3)

**Pre-PT Core**

BIOL	106	General Biology II (4)
CHEM	202	General Chemistry II (5)
HLTH	321	Medical Terminology (3)
HP	265	Orientation to Occupational and Physical Therapy (2)
PHYS	212	Principles of Physics II (4)
PSYC	433	Child Psychology (4)
PSYC	436	Adolescent Psychology (4)
PSYC	455	Abnormal Psychology (4)
PSYC	466	Psychology of Aging (4)

**Pre-PT Capstone** (choose 3-10 credits)

The Pre-Physical Therapy emphases requires a minimum of 3 credits of HP 496 which can be split across semesters. One credit = 50 hours. Students commonly use physical therapy observation hours to fulfill the internship requirement.

HP	496	Internship (1-10)
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**COURSE DESCRIPTIONS**  
**LOCATED UNDER HUMAN PERFORMANCE (HP) COURSE DESCRIPTIONS**