Health and Human Performance Major

The undergraduate major in Health and Human Performance (HHP) at Montana State University is a general pre-health professional curriculum that prepares students for health-related graduate programs (e.g., physical therapy, occupational therapy, medical school, etc.), exercise science graduate programs (e.g., exercise physiology, health promotion, biomechanics), as well as entry-level occupations within the health and wellness industry. HHP majors can choose to focus their course work within one of the following curriculum options: exercise science or kinesiology. Students within the exercise science option intend to pursue a health-related graduate degree to meet their career aspirations, whereas students within the kinesiology option will pursue careers within the health and wellness industry that do not require a graduate degree.

Exercise Science Option

The exercise science option within the Health and Human Performance (HHP) major focuses on both clinical and performance-based understandings of human movement. The exercise science option emphasizes a cross-disciplinary understanding of human movement through non-departmental courses in biology, anatomy and physiology, chemistry, physics, math, and statistics. These courses then serve as the foundation for mechanical (e.g., biomechanics), physiological, and nutritional perspectives within the departmental courses. The exercise science option specifically allows students to customize their junior and senior year course work as needed for later application to health-related graduate programs in physical therapy, occupational therapy, medical physician assistant, sports medicine, exercise science graduate programs (exercise physiology, health promotion, biomechanics), as well as medical school. Additional careers for exercise science students can include those within the health and fitness industry (e.g., those requiring ACSM Certified Health Fitness Specialist and/or Certified Clinical Exercise Specialist certifications, or the NCSA Certified Strength and Conditioning Specialist), corporate wellness programs, exercise rehabilitation programs (cardiac rehabilitation, gait laboratories, sport medicine facilities, older adult programs, etc.), as well as careers in the sport and rehabilitative medicine equipment industries. Regardless of a student's career goals, each student's course work will culminate in one of the following "capstone experience" courses: KIN 415 Advanced Exercise Testing and Prescription; KIN 430 Physical Fitness Program Design and Delivery; or a pre-approved internship (KIN 498).

Students must receive a grade of "C" or higher in all required courses as outlined in the major.

<table>
<thead>
<tr>
<th>Freshman Year</th>
<th>Fall Credits</th>
<th>Spring Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHMY 141 - College Chemistry I</td>
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<tr>
<td>M 161Q - Survey of Calculus</td>
<td>4</td>
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<td>Choose one of the following:</td>
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<tr>
<td>PSYX 100IS - Intro to Psychology</td>
<td></td>
<td></td>
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<tr>
<td>or KIN 105 - Foundations of Exercise Science</td>
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<td></td>
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<tr>
<td>or University Core</td>
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<tr>
<td>CHMY 143 - College Chemistry II</td>
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<td>COMX 111US - Introduction to Public Speaking</td>
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<tr>
<td>Choose one of the following:</td>
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<tr>
<td>KIN 105 - Foundations of Exercise Science</td>
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<tr>
<td>or PSYX 100IS - Intro to Psychology</td>
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Choose one of the following:

- University Core
- or WRIT 101W

Year Total: 14-15

<table>
<thead>
<tr>
<th>Sophomore Year</th>
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<tr>
<td>BIOB 160 - Principles of Living Systems</td>
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<td>PHSX 205 - College Physics I</td>
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<td>STAT 216Q - Introduction to Statistics</td>
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<tr>
<td>BIOH 201 - Human Anatomy and Physiology I</td>
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<tr>
<td>PHSX 207 - College Physics II</td>
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<td>STAT 217Q - Intermediate Statistical Concepts</td>
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Year Total: 17

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<tbody>
<tr>
<td>BIOH 211 - Human Anatomy and Physiology II</td>
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<td>HDFS 371 - Research Methods in HHD</td>
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<td>Choose one of the following:</td>
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<tr>
<td>KIN 320 - Exercise Physiology</td>
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<tr>
<td>or KIN 322 - Kinesiology</td>
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<td>Choose one of the following:</td>
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<tr>
<td>KIN 322 - Kinesiology</td>
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<td>or KIN 320 - Exercise Physiology</td>
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<tr>
<td>KIN 410 - Adv Strength Training and Cond</td>
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<tr>
<td>or KIN 335 - Tissue Injury and Adaptation</td>
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<tr>
<td>or KIN 490R - Undergraduate Research</td>
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<tr>
<td>or NUTR 411 - Nutrition for Sports/Exercise</td>
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<td>NUTR 221CS - Basic Human Nutrition</td>
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Total Program Credits: 120

Departmental Electives

Choose 15 credits from the list below:

- NUTR 411 - Nutrition for Sports/Exercise
- or KIN 335 - Tissue Injury and Adaptation
- or KIN 410 - Adv Strength Training and Cond
- or KIN 490R - Undergraduate Research

Directed Electives: 12

Choose one of the following:

- KIN 325R - Biomechanics

Year Total: 16-17
Kinesiology Option
The kinesiology option within the Health and Human Performance (HHP) major prepares graduates for careers requiring leadership in organizing, directing, and managing fitness and wellness programs in corporate and commercial settings. The overall goal of the kinesiology option is to develop basic knowledge, comprehension, and appreciation of a) historical and cultural perspectives of human movement, b) social and psychological influences of human movement, and c) physiological and biomechanical correlates of human performance. From this broad knowledge base, the program’s inherent flexibility allows students to pursue a variety of areas related to physical activity and sport. This option also prepares students for professional certifications in fitness and conditioning through professional organizations such as the American College of Sports Medicine (ACSM) and the National Strength and Conditioning Association (NSCA). Finally, each student’s course work will culminate in one of the following “capstone experience” courses: KIN 415 - Advanced Exercise Testing and Prescription; KIN 430 Physical Fitness Program Design and Delivery; or a pre-approved internship (KIN 498).

Students must receive a grade of “C” or higher in all required and approved elective courses as outlined in the major.

Freshman Year

<table>
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<tr>
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<tbody>
<tr>
<td>CHMY 141 - College Chemistry I</td>
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<td>COA 205 - Introduction to Coaching</td>
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<td>M 151Q - Precalculus</td>
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<td>15-16</td>
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Sophomore Year

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<tr>
<td>HDFS 371 - Research Methods in HHD</td>
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Junior Year

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</table>
### Health and Human Performance Major

**CHTH 317 - Health Behavior Theories**
or **KIN 335 - Tissue Injury and Adaptation**
or **KIN 410 - Adv Strength Training and Cond**
or **KIN 490R - Undergraduate Research**
or **NUTR 411 - Nutrition for Sports/Exercise**

Choose one of the following:
- **KIN 320 - Exercise Physiology**
or **KIN 322 - Kinesiology**

Directed Electives: 3

<table>
<thead>
<tr>
<th>Senior Year</th>
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<tbody>
<tr>
<td>Fall</td>
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<td>Year Total</td>
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<tr>
<td>Electives</td>
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**Social Science Electives**

Choose 3 credits from the list below:

- **PHL 312**  
  Contemporary Moral Problems  
  3
- **PHL 321**  
  Philosophy & Biomedical Ethics  
  3
- **PHL 345**  
  Philosophy of Science  
  3
- **PHL 353**  
  Philosophy and Technology  
  3
- **PSYX 333**  
  Psychology of Aging  
  3
- **PSYX 340**  
  Abnormal Psychology  
  3
- **PSYX 350**  
  Physiological Psychology  
  3
- **PSYX 375**  
  Behavior Modification  
  3
- **PSYX 380**  
  Memory & Cognition  
  3
- **PSYX 383**  
  Health Psychology  
  3
- **SOCI 380**  
  Sociology of Health & Medicine  
  3

**Total Program Credits:** 120

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**Departmental and Science Electives**

Choose 15 credits from the list below:

- **BCH 380**  
  Biochemistry  
  5
- **BIOB 375**  
  General Genetics  
  3
- **BIOB 425**  
  Adv Cell & Molecular Biology  
  3
- **BIOH 313**  
  Neurophysiology  
  3
- **BIOH 411**  
  Advanced Human Anatomy  
  4
- **BIOO 310**  
  Comparative Vertebrate Anatomy  
  4
- **BIOO 412**  
  Animal Physiology  
  3
- **CHMY 211**  
  Elements of Organic Chemistry  
  5
- **CHMY 321**  
  Organic Chemistry I  
  4
- **CHMY 323**  
  Organic Chemistry II  
  4
- **CHTH 317**  
  Health Behavior Theories  
  3
- **CHTH 435**  
  Human Response To Stress  
  3
- **CHTH 440**  
  Principles Of Epidemiology  
  3
- **COA 395**  
  Practicum:Coaching Application  
  1-2
- **COA 405**  
  Advanced Concepts in Coaching  
  3
- **HADM 445**  
  Managing Healthcare Organizations  
  3
- **HTH 455**  
  The Ethic of Care  
  3
- **KIN 330**  
  Motor Control and Learning  
  4
- **KIN 335**  
  Tissue Injury and Adaptation  
  3
- **KIN 410**  
  Adv Strength Training and Cond  
  3
- **KIN 415**  
  Adv Exercise Test and Prescrip  
  4
- **KIN 440R**  
  Sport Psychology  
  3
- **NUTR 321**  
  Nutrition in the Life Cycle  
  3
- **NUTR 351**  
  Nutrition and Society  
  3
- **NUTR 411**  
  Nutrition for Sports/Exercise  
  3
- **NUTR 421**  
  Macronutrient Metabolism  
  3
- **NUTR 422**  
  Micronutrient Metabolism  
  3
- **NUTR 425**  
  Medical Nutrition Therapy I  
  3

---

**Choose 15 credits from the list below:**

- **BCH 380**  
  Biochemistry  
  5
- **BIOB 375**  
  General Genetics  
  3
- **BIOB 425**  
  Adv Cell & Molecular Biology  
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- **BIOH 313**  
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  Elements of Organic Chemistry  
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- **CHTH 317**  
  Health Behavior Theories  
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  Human Response To Stress  
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- **COA 395**  
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  Managing Healthcare Organizations  
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- **HTH 455**  
  The Ethic of Care  
  3
- **KIN 330**  
  Motor Control and Learning  
  4
- **KIN 335**  
  Tissue Injury and Adaptation  
  3
Font Notice

This document should contain certain fonts with restrictive licenses. For this draft, substitutions were made using less legally restrictive fonts. Specifically:

Times was used instead of Adobe Garamond Pro.

The editor may contact Leepfrog for a draft with the correct fonts in place.