KINESIOLOGY, B.S. (HEALTH AND HUMAN DEVELOPMENT)

Begin Campus: Any Penn State Campus
End Campus: University Park

Degree Requirements
For the Bachelor of Science degree in Kinesiology a minimum of 120 credits is required for the Applied Exercise Health option, a minimum of 120 credits is required for the Movement Science option, and a minimum of 122 credits is required for the Exercise Science option:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>General Education</td>
<td>45</td>
</tr>
<tr>
<td>Electives</td>
<td>0-2</td>
</tr>
<tr>
<td>Requirements for the Major</td>
<td>100-108</td>
</tr>
</tbody>
</table>

18-27 of the 45 credits for General Education are included in the Requirements for the Major. This includes: Applied Exercise and Health Option - 9 credits GN, 6 credits GQ, 3 credits of GH, 6 credits of GS and 3 credits of GHW; Movement Science Option - 9 credits of GN courses, 6 credits of GQ courses, 3 credits of GS courses, 3 credits of GHW courses; Exercise Science Option - 9 credits of GN courses, 6 credits of GQ courses, 3 credits of GS courses.

Per Senate Policy 83.80.5, the college dean or campus chancellor and program faculty may require up to 24 credits of course work in the major to be taken at the location or in the college or program where the degree is earned. KINES requires students to complete 24 credits for the major through courses taken at University Park. Courses taken at other Penn State campuses may not be counted toward this 24 credit minimum. For more information, check the Suggested Academic Plan for this major.

Requirements for the Major
A grade of C or better is required for all courses in the major. To graduate, a student enrolled in the major must earn at least a C grade in each course designated by the major as a C-required course, as specified by Senate Policy 82-44 (http://senate.psu.edu/policies-and-rules-for-undergraduate-students/82-00-and-83-00-degree-requirements/#82-44).

Common Requirements for the Major (All Options)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 161</td>
<td>Human Anatomy and Physiology I - Lecture</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 163</td>
<td>Human Anatomy and Physiology II - Lecture</td>
<td>3</td>
</tr>
<tr>
<td>KINES 100</td>
<td>The Cultural and Behavioral Foundations of Kinesiology</td>
<td>3</td>
</tr>
<tr>
<td>KINES 101</td>
<td>The Biophysical Foundations of Kinesiology</td>
<td>3</td>
</tr>
<tr>
<td>KINES 202</td>
<td>Functional Human Anatomy</td>
<td>3</td>
</tr>
<tr>
<td>KINES 295B</td>
<td>Kines Careers &amp; Observation</td>
<td>1</td>
</tr>
<tr>
<td>KINES 321</td>
<td>Psychology of Movement Behavior</td>
<td>3</td>
</tr>
<tr>
<td>KINES 341</td>
<td>The Historical, Cultural, and Social Dynamics of Sport</td>
<td>3</td>
</tr>
<tr>
<td>KINES 345</td>
<td>Meaning, Ethics, and Movement</td>
<td>3</td>
</tr>
<tr>
<td>KINES 350</td>
<td>Exercise Physiology</td>
<td>3</td>
</tr>
</tbody>
</table>

KINES 360 The Neurobiology of Motor Control and Development 3
KINES 384 Biomechanics 3
NUTR 251 Introductory Principles of Nutrition 3

Additional Courses
Additional Courses: Require a grade of C or better
Select 3-4 credits from the following:

- SCM 200 Introduction to Statistics for Business 3
- STAT 200 Elementary Statistics 3
- STAT 250 Introduction to Biostatistics 3

Requirements for the Option
Requirements for the Option: Require a grade of C or better
Select an option 55-67

Requirements for the Option
Applied Exercise and Health Option (60-67 credits)
Available at the following campuses: University Park

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CI 280</td>
<td>Introduction to Teaching English Language Learners 3</td>
<td></td>
</tr>
<tr>
<td>EDPSY 10</td>
<td>Individual Differences and Education 3</td>
<td></td>
</tr>
<tr>
<td>KINES 200</td>
<td>Muscle Training: Physiology, Programs, Techniques 3</td>
<td></td>
</tr>
<tr>
<td>KINES 201</td>
<td>Cardiorespiratory Training for Health and Performance 3</td>
<td></td>
</tr>
<tr>
<td>KINES 267</td>
<td>Fundamental Movement Skills Instruction 1</td>
<td></td>
</tr>
<tr>
<td>KINES 367</td>
<td>Games and Sports Instruction Across the Lifespan 1</td>
<td></td>
</tr>
<tr>
<td>KINES 368</td>
<td>Individual Fitness and Wellness 2</td>
<td></td>
</tr>
<tr>
<td>KINES 401</td>
<td>Applied Group Fitness Exercise Prescription and Program Design 3</td>
<td></td>
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<tr>
<td>KINES 456</td>
<td>Physical Fitness Appraisal 4</td>
<td></td>
</tr>
<tr>
<td>PSYCH 100</td>
<td>Introductory Psychology 3</td>
<td></td>
</tr>
</tbody>
</table>

Additional Courses
Additional Courses: Require a grade of C or better
MATH 26 or Satisfactory performance on the MATH placement examination - i.e., placement beyond the level of MATH 26
Select 3-5 credits from:

- CHEM 101 Introductory Chemistry 3
- CHEM 106 Introductory and General Chemistry 3
- CHEM 110 Chemical Principles I 3
- CHEM 130 Introduction to General, Organic, and Biochemistry 3

Select 3-4 credits from:

- PHYS 150 Technical Physics I 3
- PHYS 250 Introductory Physics I 3

Supporting Courses and Related Areas
Supporting Courses and Related Areas: Require a grade of C or better
Take the following required courses with selected emphasis area: 25-29

HPE Certification Emphasis:

- KINES 366 The Process of Teaching Physical Education 3
- KINES 395A Ldrshp Prac:Tchrs 3
- KINES 400 Adapted Physical Education 3
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>KINES 464</td>
<td>Physical Education Programming and Practicum</td>
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<tr>
<td>KINES 468W</td>
<td>Health Instruction in the School—Content and Method</td>
<td></td>
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<tr>
<td>KINES 495A</td>
<td>Practicum in Student Teaching</td>
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<tr>
<td>SPLED 400</td>
<td>Inclusive Special Ed Foundations: Legal, Characteristics, Collaboration, Assessment, and Management</td>
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</tr>
<tr>
<td>ACSM/NSCA Certification Emphasis:</td>
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<td></td>
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<tr>
<td>KINES 395B</td>
<td>Leadership Practicum: KINES</td>
<td></td>
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<tr>
<td>KINES 421</td>
<td>Exercise Psychology</td>
<td></td>
</tr>
<tr>
<td>KINES 425W</td>
<td>Physical Activity in Diverse Populations or KINES 48:Scientific Basis of Exercise for Older Adults or KINES 49:Programming for Business and Agencies or KINES 49:Principles and Ethics of Coaching</td>
<td></td>
</tr>
<tr>
<td>KINES 457</td>
<td>Exercise Prescription and Case Studies</td>
<td></td>
</tr>
<tr>
<td>KINES 485</td>
<td>Science and Practice of Training Athletes</td>
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<tr>
<td>KINES 495B</td>
<td>Field and/or Research Practicum in Kinesiology</td>
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<tr>
<td>KINES 495E</td>
<td>Advanced Professional Development in Kinesiology</td>
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<tr>
<td></td>
<td>Select 3 credits from approved 400-level KINES courses:</td>
<td></td>
</tr>
<tr>
<td>KINES 410</td>
<td>Physical Growth and Motor Development</td>
<td></td>
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<tr>
<td>KINES 411</td>
<td>Introduction to Musculoskeletal Injury and Rehabilitation</td>
<td></td>
</tr>
<tr>
<td>KINES 422</td>
<td>Physical Activity Interventions</td>
<td></td>
</tr>
<tr>
<td>KINES 424</td>
<td>Women and Sport</td>
<td></td>
</tr>
<tr>
<td>KINES 425W</td>
<td>Physical Activity in Diverse Populations</td>
<td></td>
</tr>
<tr>
<td>KINES 455</td>
<td>Physiological Basis of Exercise as Medicine</td>
<td></td>
</tr>
<tr>
<td>KINES 458</td>
<td>Introduction to Electrocardiogram Interpretation</td>
<td></td>
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<tr>
<td>KINES 459</td>
<td>Community Engagement and Outreach in Kinesiology</td>
<td></td>
</tr>
<tr>
<td>KINES 460</td>
<td>Movement Disorders</td>
<td></td>
</tr>
<tr>
<td>KINES 465</td>
<td>Neurobiology of Sensorimotor Stroke Rehabilitation</td>
<td></td>
</tr>
<tr>
<td>KINES 467</td>
<td>The Science of Performance Enhancement</td>
<td></td>
</tr>
<tr>
<td>KINES 481W</td>
<td>Scientific Basis of Exercise for Older Adults</td>
<td></td>
</tr>
<tr>
<td>KINES 483</td>
<td>Motor Patterns of Children</td>
<td></td>
</tr>
<tr>
<td>KINES 493</td>
<td>Principles and Ethics of Coaching</td>
<td></td>
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</table>

Movement Science Option (56-58 credits)

*Available at the following campuses: Altoona, University Park*

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 110</td>
<td>Biology: Basic Concepts and Biodiversity</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 162</td>
<td>Human Anatomy and Physiology I - Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 164</td>
<td>Human Anatomy and Physiology II - Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 111</td>
<td>Experimental Chemistry I</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 112</td>
<td>Chemical Principles II</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 113</td>
<td>Experimental Chemistry II</td>
<td>1</td>
</tr>
<tr>
<td>KINES 395B</td>
<td>Leadership Practicum: KINES</td>
<td>1</td>
</tr>
<tr>
<td>KINES 495B</td>
<td>Field and/or Research Practicum in Kinesiology</td>
<td>6</td>
</tr>
<tr>
<td>PHYS 250</td>
<td>Introductory Physics I</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 251</td>
<td>Introductory Physics II</td>
<td>4</td>
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</tbody>
</table>

Prescribed Courses

*Prescribed Courses: Require a grade of C or better*

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 106</td>
<td>Introductory and General Chemistry</td>
<td>3-5</td>
</tr>
<tr>
<td>CHEM 110</td>
<td>Chemical Principles I</td>
<td></td>
</tr>
<tr>
<td>MATH 26 or Satisfactory performance on the MATH placement examination -- i.e., placement beyond the level of MATH 26</td>
<td>3</td>
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</tbody>
</table>

Select an additional 12 credits from approved 400-level KINES courses:

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<tr>
<th>Code</th>
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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>KINES 400</td>
<td>Adapted Physical Education</td>
<td></td>
</tr>
<tr>
<td>KINES 410</td>
<td>Physical Growth and Motor Development</td>
<td></td>
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<tr>
<td>KINES 411</td>
<td>Introduction to Musculoskeletal Injury and Rehabilitation</td>
<td></td>
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<tr>
<td>KINES 419</td>
<td>Disability Sport and Recreation</td>
<td></td>
</tr>
<tr>
<td>KINES 420</td>
<td>Psychosocial Dimensions of Physical Activity</td>
<td></td>
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<tr>
<td>KINES 421</td>
<td>Exercise Psychology</td>
<td></td>
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<tr>
<td>KINES 422</td>
<td>Physical Activity Interventions</td>
<td></td>
</tr>
<tr>
<td>KINES 423</td>
<td>Psychology of Sports Injuries</td>
<td></td>
</tr>
<tr>
<td>KINES 424</td>
<td>Women and Sport</td>
<td></td>
</tr>
<tr>
<td>KINES 425W</td>
<td>Physical Activity in Diverse Populations</td>
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<tr>
<td>KINES 426</td>
<td>Physical Activity and Public Health</td>
<td></td>
</tr>
<tr>
<td>KINES 427</td>
<td>Developmental Sport &amp; Exercise Psychology</td>
<td></td>
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<tr>
<td>KINES 428</td>
<td>Motivation and Emotion in Movement</td>
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<tr>
<td>KINES 429</td>
<td>Psychology of Sport Performance</td>
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<tr>
<td>KINES 430W</td>
<td>Groups in Physical Activity</td>
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<tr>
<td>KINES 439W</td>
<td>Ethics in Sport and Sport Management</td>
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<tr>
<td>KINES 440</td>
<td>Philosophy and Sport</td>
<td></td>
</tr>
<tr>
<td>KINES 441</td>
<td>History of Sport in American Society</td>
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<tr>
<td>KINES 442</td>
<td>Sport in Ancient Greece and Rome</td>
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<tr>
<td>KINES 445</td>
<td>Alcohol and Drug Education</td>
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<tr>
<td>KINES 446</td>
<td>History of Sport in the Modern World</td>
<td></td>
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<tr>
<td>KINES 447W</td>
<td>Representing Sport in Popular Film</td>
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<tr>
<td>KINES 452</td>
<td>Applied Cardiovascular Physiology</td>
<td></td>
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<tr>
<td>KINES 453</td>
<td>Environmental Physiology</td>
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<tr>
<td>KINES 454</td>
<td>Women's Health and Exercise Across the Lifespan</td>
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</tr>
<tr>
<td>KINES 455</td>
<td>Physiological Basis of Exercise as Medicine</td>
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<td>Movement Disorders</td>
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<td>KINES 463</td>
<td>Acquisition of Motor Skills</td>
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<tr>
<td>KINES 465</td>
<td>Neurobiology of Sensorimotor Stroke Rehabilitation</td>
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</tr>
<tr>
<td>KINES 467</td>
<td>The Science of Performance Enhancement</td>
<td></td>
</tr>
<tr>
<td>KINES 471</td>
<td>MOTOR CONTROL</td>
<td></td>
</tr>
<tr>
<td>KINES 481W</td>
<td>Scientific Basis of Exercise for Older Adults</td>
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<td>KINES 483</td>
<td>Motor Patterns of Children</td>
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<td>KINES 484</td>
<td>Advanced Biomechanics</td>
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<tr>
<td>KINES 485</td>
<td>Science and Practice of Training Athletes</td>
<td></td>
</tr>
<tr>
<td>KINES 488</td>
<td>Mechanics of Locomotion</td>
<td></td>
</tr>
<tr>
<td>KINES 492W</td>
<td>Programming for Business and Agencies</td>
<td></td>
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</tbody>
</table>
of aesthetic appreciation. These are requirements for all baccalaureate general education programs. Intellectual curiosity, a strengthened ability to think, and a deeper sense of interconnected contexts. General Education aids students in developing the necessary skills to be successful in the future and to thrive while living in interconnected contexts. General Education provides the opportunity for students to acquire transferable skills that are valuable in the workplace and in life.

**General Education**

Connecting career and curiosity, the General Education curriculum provides the opportunity for students to acquire transferable skills necessary to be successful in the future and to thrive while living in interconnected contexts. General Education aids students in developing intellectual curiosity, a strengthened ability to think, and a deeper sense of aesthetic appreciation. These are requirements for all baccalaureate students and are often partially incorporated into the requirements of a program. For additional information, see the General Education Requirements (https://bulletins.psu.edu/undergraduate/general-education/baccalaureate-degree-general-education-program/) section of the Bulletin and consult your academic adviser.

The keystone symbol appears next to the title of any course that is designated as a General Education course. Program requirements may also satisfy General Education requirements and vary for each program.

**Foundations (grade of C or better is required.)**
- Quantification (GQ): 6 credits
- Writing and Speaking (GWS): 9 credits

**Knowledge Domains**
- Arts (GA): 6 credits
- Health and Wellness (GHW): 3 credits
- Humanities (GH): 6 credits
- Social and Behavioral Sciences (GS): 6 credits
- Natural Sciences (GN): 9 credits

**Integrative Studies (may also complete a Knowledge Domain requirement)**
- Inter-Domain or Approved Linked Courses: 6 credits

**University Degree Requirements**

**First Year Engagement**
All students enrolled in a college or the Division of Undergraduate Studies at University Park, and the World Campus are required to take 1 to 3 credits of the First-Year Seminar, as specified by their college First-Year Engagement Plan.

Other Penn State colleges and campuses may require the First-Year Seminar, colleges and campuses that do not require a First-Year Seminar provide students with a first-year engagement experience.

First-year baccalaureate students entering Penn State should consult their academic adviser for these requirements.

**Cultures Requirement**
6 credits are required and may satisfy other requirements
- United States Cultures: 3 credits
- International Cultures: 3 credits

**Writing Across the Curriculum**
3 credits required from the college of graduation and likely prescribed as part of major requirements.

**Total Minimum Credits**
A minimum of 120 degree credits must be earned for a baccalaureate degree. The requirements for some programs may exceed 120 credits. Students should consult with their college or department adviser for information on specific credit requirements.

**Quality of Work**
Candidates must complete the degree requirements for their major and earn at least a 2.00 grade-point average for all courses completed within their degree program.

**Limitations on Source and Time for Credit Acquisition**
The college dean or campus chancellor and program faculty may require up to 24 credits of course work in the major to be taken at the location or in the college or program where the degree is earned. Credit used toward degree programs may need to be earned from a particular source or
within time constraints (see Senate Policy 83-80 (http://senate.psu.edu/policies-and-rules-for-undergraduate-students/82-00-and-83-00-degree-requirements/#83-80)). For more information, check the Suggested Academic Plan for your intended program.