Exercise Science  (KYEXSBS)
B.S. in Kinesiology degree (120 minimum credit hours)
Department of Kinesiology
2.5 GPA required for admission, 2.0 GPA req. for graduation
No Pass/Fail except for free electives
Effective for students matriculating summer 2013

General Education (20 – 39 credits)
(General Education Bulletin at: www.indiana.edu/~bulletin/iub)

English Composition (0 to 3 credits, C- minimum required)
Complete one of the following options:
___ 3 CMLT-C 110 Writing the World
___ 3 ENG-W 131 Elementary Composition
___ 3 ENG-W 170 Projects in Reading and Writing
____ 0 ENG-W 131 EX Elementary Composition Exemption

Mathematical Modeling (3 to 4 credits)
Complete one of the following options:
___ 3 MATH-A 118 Finite Mathematics for the Soc and Behavior Sci
___ 4 MATH-D 116 AND MATH-D 117 Intro to Finite Mathematics I-II
___ 3 MATH-J 113 Introduction to Calculus with Applications
___ 3 MATH-M 118 Finite Mathematics
___ 3 MATH-M 119 Brief Survey of Calculus I
___ 4 MATH-M 211 Calculus I
___ 4 MATH-M 213 Accelerated Calculus
___ 3 MATH-S 118 Honors Finite Mathematics
___ 3 MATH-V 118 Finite and Consumer Mathematics:
___ 3 MATH-V 118 Finite Math for Social and Biological Sciences

Natural and Mathematical Sciences (5 credits)
Complete 5 credits from the list of approved N&M courses in the IUB General Education Bulletin. At least one course must be a natural science (as indicated by an asterisk in the GENED bulletin).

Arts and Humanities (6 credits)
Complete 6 credits from the list of approved A&H courses in the IUB General Education Bulletin.

Social and Historical Studies (6 credits)
Complete 6 credits from the list of approved S&H courses in the IUB General Education Bulletin.

World Languages and Cultures (0 to 14 credits)
Choose one of the following three options:
Complete 6 credits of world culture courses from the list of approved WC courses in the IUB General Education Bulletin.

OR
Achieve competency in a single foreign language equal to successful completion of the four semester sequence in a world language.

OR
Complete a 6-credit International experience in an approved study abroad.
A list of approved course choices may be found in the IUB General Education Bulletin.

Major (81 – 90 credits)

Complete the following Exercise Science courses (42-45 cr.):
___ 2 SPH-I 119 Personal Fitness
___ 3-5 SPH-K 205 Structural Kines
   OR ANAT-A 215 Basic Human Anatomy N&M
___ 3 SPH-K 212 Introduction to Exercise Science
___ 3 SPH-K 391 Biomechanics
___ 3 SPH-K 405 Introduction to Sport Psychology
___ 3 SPH-K 409 Basic Physiology of Exercise (P:ANAT-A 215
   or SPH-K 205 & PHLS-P 215)
___ 3 SPH-K 450 Topics: Introduction to Exercise Science & Public Health
___ 3 SPH-K 452 Motor Learning
___ 3 SPH-N 231 Human Nutrition (P:CHEM-C 101 or C 117) N&M
___ 5 PHSL-P 215 Basic Human Physiology N&M
___ 5 PHYS-P 201 General Physics 1 N&M
___ 3-4 PSY-K 300 Stats Technq OR STAT-S 303 OR STAT-S 300
___ 3 PSY-P 101 Introductory Psychology OR PSY-P 155 N&M

Complete a minimum of 19 credits from the following
Exercise Science electives (19 cr.):
___ 3 SPH-B 354 Multidisciplinary Perspectives in Gerontology
___ 3 SPH-F 150 S&H or EDUC-P 314 Life Span Development
___ 3 SPH-H 160 First Aid & Emergency Care
___ 3 SPH-M 211 Introduction to Sport Management
___ 3 SPH-K 217 Methods of Group Exercise Instruction
___ 2 SPH-K 280 Basic Prevention and Care of Athletic Injuries
___ 2 SPH-K 283 Group Fitness Practicum
___ 1 SPH-K 301 Job Search Strategies for Kines Students
___ 2 SPH-K 317 Theory and Practice of Resistance Training
___ 3 SPH-M 333 Sport in America: Historical Perspective
___ 3 SPH-K 335 Theories of Conditioning for Coaching *
___ 3 SPH-M 382 Sport in American Society **
___ 3 SPH-K 398 Adapted Physical Education
___ 1-2 SPH-K 385 Practicum in Adapted Phys. Ed. 
___ 3 SPH-K 412 Exercise in Health and Disease** (P: SPH-K 409)
___ 3 SPH-K 416 Fitness Management
___ 3 SPH-K 417 Physical Activity and Disease (P: K 409) *
___ 3 SPH-K 435 Philosophical Foundations of Coaching **
___ 1-3 SPH-K 497 Internship in Exercise Science
___ 3 SPH-K 490 Motor Development and Learning *
___ 3 SPH-K 492 Research in Kinesiology
___ 1-3 SPH-K 496 Lab Assisting or Field Exp. in Kinesiology

Additional Elective choices continued on reverse side.
Additional Elective choices:

- 3 ANTH-A 105 Human Origins S&B
- 4 ANAT-A 464 Human Tissue Biology **
- 3 ANTH-A 303 Evolution and Prehistory
- 3 ANTH-B 200 Bioanthropology N&M
- 3 ANTH-B 301 Bioanthropology Laboratory
- 3 ANTH-B 480 Human Growth and Development
- 3-5 BOL-L 100 Humans & the Biological World * N&M
  or BOL-L 104 Introductory Biology Lectures N&M
  or BOL-L 112 Intro to Biology: Biological Mech N&M
- 3 BOL-L 113 Laboratory Biology (P: BOL-L 112)
- 3 BOL-L 211 Molecular Biology (P: L112)
- 3 BOL-L 302 Topics in Human Biology
- 3 BOL-L 311 Genetics & Development
- 3 BOL-L 312 Cell Biology
- 3 BOL-L 313 Cell Biology Laboratory
- 3 BOL-L 330 Biology of the Cell
- 3 BOL-M 200 Microorganisms in Nature and Disease**
- 1 BOL-M 215 Microorganism Laboratory**
- 4 BOL-P 451 Integrative Human Physiology (prev. PHSL 431)
- 5 CHEM-C 103 Introduction to Chemical Principles N&M
  or CHEM-N 330 Intermediate Inorganic Chem (P: C341, C342)
- 3 CHEM-C 341 Organic Chemistry I
  3 CHEM-C 342 Organic Chemistry II (P: CHEM-C 341)
- 2 CHEM-C 343 Organic Chemistry Laboratory I
  2 CHEM-C 344 Organic Chemistry Laboratory II
- 3 CHEM-C 360 Elementary Physical Chemistry
- 3 CHEM-C 483 Biological Chemistry (P:C-341 & C 342)
- 3 CHEM-C 485 Biochemistry & Physiology
- 3 CHEM-R 340 Survey of Organic Chemistry
- 2 CLAS-C 209 Medical Terms from Greek & Latin
- 2 CSCI-A 202 Intro to Programming II N&M
  2 CSCI-A 304 Introduction to C++ Programming
  2 CSCI-C 212 Introduction to Software Systems
  2 CSCI-C 241 Discrete Structures for Comp Science
  2 CSCI-C 311 Programming Languages
  2 CSCI-C 335 Computer Structures
  2 CSCI-C 343 Data Structures
  3 HPSC X200 Introduction to Scientific Reasoning N&M
  3 MATH-M 301 Applied Linear Algebra and Appl
  3 MATH-M 303 Linear Algebra for Undergraduates
  4 MATH-M 311 Calculus III
  3 MATH-M 312 Calculus IV
  3 MSCI-I 131 Disease and the Human Body
  3 MSCI-M 216 Medical Science of Psychoactive Drugs N&M
- 3 PHIL-P 105 Thinking and Reasoning A&H
- 3 PHIL-P 140 Introduction to Ethics
- 3 PHIL-P 150 Elementary Logic A&H
- 3 PHIL-P 250 Introduction to Symbolic Logic N&M
- 3 PHIL-P 251 Intermediate Symbolic Logic N&M
- 5 PHYS-P 202 General Physics 2 N&M
- 2 PHYS-P 302 Elementary Electronics
- 3 PSY-P Any Psy courses other than P 101 and K 300

Complete one of the following MATH courses which was not used to satisfy the Mathematical Modeling requirement in the General Education portion of this degree requirement tab sheet (3-4 cr.):

- 3 MATH-M 118 Finite Math OR AV118 OR D116 & D117 (4 cr.)
- 3 MATH-M 119 Brief Surv Calc I OR MATH-M 211 Calc 1 (4 cr.)

Complete one of the following CHEM options (5-10 cr.):

- 3 CHEM-C 117 Principles of Chemistry & Biochemistry I N&M OR all of the following:
  2 CHEM-C 127 Chemistry & Biochemistry Lab I N&M
- 3 CHEM-C 101 Elementary Chemistry 1 N&M
- 2 CHEM-C 121 Elementary Chemistry Laboratory 1 N&M
- 3 CHEM-C 102 Elementary Chemistry 2 ** N&M
- 2 CHEM-C 122 Elementary Chemistry Laboratory 2 ** N&M

Complete one of the following computer courses (3 cr.):

- 3 BUS-K 201 The Computer in Business
- 3 CSCI-A 110 Intro to Computers & Computing N&M
- 3 SPH-K 200 Microcomputer Applications in Physical Ed
- 3 SPH-R 212 Computers in Park Recreation Tourism Mgmt.

Complete the following communications course (3 cr.):

- 3 CMCL-C 121 Public Speaking A&H (not C122)

Complete 6 credits from the following writing courses (6 cr.):

- 3 BUS-X 204 Business Communications
- 3 CMCL-C 323 Speech Composition
- 3 ENG-W 103 Introduction to Creative Writing A&H
- 1 ENG-W 202 English Grammar Review
- 3 ENG-W 203 Creative Writing (P: ENG-W 103)
- 3 ENG-W 231 Professional Writing Skills
- 3 ENG-W 240 Community Service Writing*
- 3 ENG-W 270 Argumentative Writing
- 3 ENG-W 280 Literary Editing & Publishing
- 3 ENG-W 350 Advanced Expository Writing
- 3 TEL-T 211 Writing for Electronic Media

Students must present evidence of current CPR certification to the recorder’s office in SPH Room 115 at the time the student applies for graduation. The document submitted must display a date which indicates that the student is currently certified in CPR. Certification in CPR is only acceptable from the American Red Cross, the American Heart Association, or the National Safety Council. Note that an elective course choice, SPH-H 160 First Aid & Emergency Care includes CPR certification.

GENERAL EDUCATION 20-39
MAJOR 81-90
COMPLETE A MINIMUM OF 120 CREDITS FOR THIS DEGREE.

* Generally fall only  ** Generally spring only

With advisor approval, other science courses may be counted as Exercise Science Electives.
---Freshman year---

Complete courses listed in the right column.

- Preprofessional students (premedical, dental, physical therapy, physician assistant, etc) should take CHEM-C 117/127 instead of CHEM-C 101/121. Students who take CHEM-C 117/127 may need to take additional chemistry which will count in the exercise science elective area.
- @ See TAB sheet
- * A grade of C- or higher is required

--- Sophomore year ---

Complete courses listed in the right column.

- See TAB sheet. Preprofessional students usually need to take ANAT-A 215 (5 cr.) rather than SPH-K 205 (3 cr.). Students who take K 205 (3 cr.) will add additional credit hours in the fall semester.
- @ See TAB sheet for options.

--- Junior year ---

Complete courses listed in the right column.

- @ See TAB sheet for options.
- ~ Some courses in the Exercise Science Electives section are offered only fall or spring semester. See the list.

--- Senior year ---

Complete courses listed in the right column.

- Students must provide evidence of current CPR certification at time of application for graduation. Some PT programs require American Heart Association Health Care Provider certification.
- @ See TAB sheet for options.
- ~ Some courses in the Ex Sci major section are offered only fall or spring semester

--- Suggested sequencing ---

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<tr>
<td>CHEM prep or A&amp;H and/or WLC</td>
<td>CHEM-C 101-121# or CHEM-C 117/127</td>
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<td>ENG-W 131 or W 170*</td>
<td>CMCL-C 121</td>
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<td>MATH-M 118 or M 119</td>
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<td>SPH-K 212</td>
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<td>SPH-K 450 (Topic: Intro to Kinesiology &amp; Public Health)</td>
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--- SCHOL OF PUBLIC HEALTH-BLOOMINGTON DEPARTMENT OF KINESIOLOGY—EXERCISE SCIENCE ---

The suggested plan below shows how you may sequence courses to allow for completion of the degree in a four-year period. There is usually some flexibility within this plan as long as general elective course credit hours are not exceeded. Preprofessional students should see their advisor about the use of free electives. Most electives will be additional science courses. Students should meet with an advisor at least once each semester to plan their curriculum.

**Advising Plan**

--- Freshman year ---

- 30 credit hours (or complete a total of 30 credit hours by the beginning of the third semester).

--- Sophomore year ---

- 30 credit hours (or complete a total of 60 credit hours by the beginning of the fifth semester).

--- Junior year ---

- 30 credit hours (or complete a total of 90 credit hours by the beginning of the seventh semester).

--- Senior year ---

- 30 credit hours (or complete a minimum of 120 credit hours).

Students may need to take the Graduate Record Exam (GRE) or other professional school admission exam (i.e. MCAT, DAT) if planning to attend graduate school or enter a specific professional program (i.e. medical school, dental school)
Exercise Science

Description of Program

The major in exercise science has a science-based curriculum that provides a broad background for students planning to further their education at the graduate level. The program emphasizes these primary disciplines: anatomy, biomechanics, exercise physiology, sport psychology, and motor learning/control. Students complete a rigorous curriculum in major course work as well as in areas such as anatomy, chemistry, mathematics, physics, physiology, and psychology. The major provides an excellent preparation for graduate work in adapted physical education, ergonomics, biomechanics, exercise physiology, motor control, sport psychology, and sports medicine. In addition, students with this major prepare for admission to graduate programs in physical and occupational therapy, medicine, physician assistant, dentistry, podiatry, optometry, chiropractic, osteopathy, and other allied health fields.

Special Opportunities

Majors have the opportunity to work with faculty research specialists in areas specific to kinesiology. Students planning to pursue graduate kinesiology programs are encouraged to gain laboratory research experience offered by departmental faculty. Internship opportunities outside of the department in a wide variety of medical and allied health areas are coordinated by the Kinesiology Career office. Throughout the year, the very active Kinesiology Club invites speakers from a number of health profession areas to share their expertise and professional perspective with majors. Through these experiences, students learn firsthand about the graduate programs/professions of interest to them. Expert and in-depth advising services help students tailor their major program to meet their eventual goals.

Careers

Many students with this major are preparing to enter graduate programs in their career area of interest, most often a health profession, such as: physical therapist, occupational therapist, physician’s assistant, medical doctor, dentist, optometrist, or other allied health profession. Other students go on to pursue graduate degrees in exercise physiology, biomechanics, motor learning and control, and ergonomics. Others may seek positions in fitness instruction, personal training, coaching, cardiac rehabilitation, health screening and education, pharmaceutical sales, or sales and marketing of medical, fitness, or sports-related equipment. This major can be combined with a minor or professional certification to tailor the student’s background to a specific area, such as health care, coaching, fitness, or business.