

Human Physiology, BS

Requirements

The Bachelor of Science with a major in human physiology requires a minimum of 120 s.h., including 62 s.h. of work for the major. Students must maintain a grade-point average of at least 2.00 in all courses for the major and in all UI courses for the major. They must also complete the College of Liberal Arts and Sciences GE CLAS Core. Transfer students must complete a minimum of 16 s.h. in health and human physiology courses (prefix HHP) at the University of Iowa, including HHP:3115 Anatomy for Human Physiology With Lab and HHP:3550 Human Physiology With Laboratory.

In planning coursework, students should be guided by the College of Liberal Arts and Sciences maximum hours rule: students earning a BS may apply a maximum of 56 s.h. earned in one department to the minimum 120 s.h. required for graduation, whether or not the coursework is accepted toward requirements for the major; students who earn more than 56 s.h. from one department may use the additional semester hours to satisfy requirements for the major (if the department accepts them), and the grades they earn become part of their grade-point average, but they cannot apply the additional semester hours to the minimum 120 s.h. required for graduation.

The major in human physiology is designed primarily for individuals who intend to continue their education beyond the BS in the health professions, including medicine, physician assistant, physical therapy, dentistry, occupational therapy, chiropractic, and optometry, and for those who intend to pursue graduate degrees in basic life sciences.

Students may complete the BS with a major in human physiology without an emphasis area or with one of three optional emphasis areas: clinical physiology, neuromuscular physiology and metabolism, or research.

Students may earn a BS in human physiology, health promotion, or exercise science, but not more than one of these.

Students who earn a BS in human physiology may not earn the minor in human physiology.

For policies concerning transfer credit, credit by examination, cumulative grade-point average, general rules relating to regression and duplication, and so forth, see For Undergraduate Students on the College of Liberal Arts and Sciences website.

The BS with a major in human physiology requires the following coursework.

Requirements	Hours
Core Courses	10
Elective Courses	21
Cognate Area Courses	31

Core Courses

Course #	Title	Hours
Both of these:		
HHP:3115	Anatomy for Human Physiology With Lab	5

HHP:3550	Human Physiology With Laboratory	5
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Elective Courses

At least 21 s.h. from these with at least 15 s.h. in health, sport, and human physiology courses (prefix HHP).

Course #	Title	Hours
At least 6 s.h. from these (organ system-based courses):		
HHP:3450	Immunology in Health and Disease	3
HHP:4110	Advanced Human Anatomy Laboratory	4
HHP:4130	Skeletal Muscle Physiology	3
HHP:4230	Motor Control Theory	3
HHP:4260	Respiratory Pathophysiology	3
HHP:4300	Neurophysiology	3
HHP:4460	Cardiovascular Physiology	3
At least 6 s.h. from these (integrative physiology courses):		
HHP:4150	Clinical Exercise Physiology	3
HHP:4220	Biomechanics of Human Motion	3
HHP:4250	Human Pathophysiology	3
HHP:4410	Integrative Physiology of Exercise	3
HHP:4470/ASP:4470	Physiology of Aging	3
HHP:4510	Energetics in Health and Disease	3
HHP:4520	Clinical Pharmacology	3
May include up to 9 s.h. from the following:		
HHP:1050	Exploring Health and Human Physiology	1
HHP:3250	Motor Learning	3
HHP:3300	Human Growth and Motor Development	3
HHP:3490	Biomedical Ethics	3
HHP:3700	Health Care Communications	1
HHP:4290	Exercise Oncology	3
HHP:4450	Human Genetics and Disease	3-4
HHP:4800	Research Methods	3
Any research/experiential learning course from these:		
HHP:3994	Undergraduate Research (may be repeated; up to 3 s.h. may be applied toward the degree)	1-3
HHP:4197/ DST:4198/TR:4197	Therapeutic Recreation: Experiences in Adaptive and Inclusive Sports (may be repeated; only one attempt may be applied toward the degree)	3
HHP:4490	International Health: Experiential Learning (may be repeated; only one attempt may be applied toward the degree)	3

HHP:4500	Undergraduate Independent Project (may be repeated; up to 3 s.h. may be applied toward the degree)	arr.
HHP:4700	Health and Human Physiology Teaching Internship (may be repeated; up to 3 s.h. may be applied toward the degree)	1-3
HHP:4900	Honors Research	3
HHP:4910	Honors Research II	3
HHP:4930	Health and Human Physiology Internship (may be repeated; up to 3 s.h. may be applied toward the degree)	arr.
ABRD:3712	Child Life Experiential Learning Program	3
May include one of these:		
HHP:2200	Physical Activity and Health	3
HHP:2310	Nutrition and Health	3
HHP:4240	Exercise Testing and Prescription With Lab	4
HHP:4280	Applied Cultural Safety and Healthcare	3
May include one of these:		
BIOL:2254	Endocrinology	3
BIOL:2723	Cell Biology	3
BMB:3110	Biochemistry	3
MICR:2157	General Microbiology	3
MICR:2158	General Microbiology Laboratory	2
May include one of these:		
PSY:2130	Advanced Psychology for Pre-Medical Track	3
PSY:2930	Abnormal Psychology: Health Professions	3
SOC:3510	Medical Sociology	3

Cognate Area Courses

Students must earn a minimum of 31 s.h. in cognate areas—subjects outside of human physiology—by completing courses from the following lists.

Course #	Title	Hours
Biology		
This sequence:		
BIOL:1411 & BIOL:1412	Foundations of Biology and Diversity of Form and Function	8
Chemistry		
This sequence:		
CHEM:1110 & CHEM:1120	Principles of Chemistry I and Principles of Chemistry II	8
Mathematics		
One of these:		
MATH:1460	Calculus for the Biological Sciences	4
MATH:1550	Engineering Calculus I	4

MATH:1850	Calculus I	4
Physics		
This sequence:		
PHYS:1511 & PHYS:1512	College Physics I and College Physics II	8
Statistics		
One of these:		
STAT:2010	Statistical Methods and Computing	3
STAT:3510/IGPI:3510	Biostatistics	3
STAT:4143/PSQF:4143	Introduction to Statistical Methods	3

Areas of Emphasis

Students majoring in human physiology may declare an emphasis area but are not required to do so to satisfy major requirements. Declaring an emphasis area does not require completion of elective coursework beyond that already required for the major. Major elective requirements can be met through emphasis area courses.

Clinical Physiology Area

Course #	Title	Hours
Four of these:		
HHP:3450	Immunology in Health and Disease	3
HHP:3700	Health Care Communications	1
HHP:4150	Clinical Exercise Physiology	3
HHP:4240	Exercise Testing and Prescription With Lab	4
HHP:4250	Human Pathophysiology	3
HHP:4260	Respiratory Pathophysiology	3
HHP:4460	Cardiovascular Physiology	3
HHP:4520	Clinical Pharmacology	3

Neuromuscular Physiology and Metabolism Area

Course #	Title	Hours
Four of these:		
HHP:4110	Advanced Human Anatomy Laboratory	4
HHP:4130	Skeletal Muscle Physiology	3
HHP:4220	Biomechanics of Human Motion	3
HHP:4230	Motor Control Theory	3
HHP:4300	Neurophysiology	3
HHP:4410	Integrative Physiology of Exercise	3
HHP:4510	Energetics in Health and Disease	3

Research Area

Course #	Title	Hours
At least 9 s.h. from these:		
HHP:3994	Undergraduate Research (may be repeated; up to 3 s.h. may be applied toward the degree)	1-3

HHP:4500	Undergraduate Independent Project (may be repeated; up to 3 s.h. may be applied toward the degree)	arr.
HHP:4800	Research Methods	3
HHP:4900	Honors Research	3
HHP:4910	Honors Research II	3