

Bachelor of Arts in Human Biology

Human Biology

This interdisciplinary major permits students to understand humans from a variety of academic viewpoints: anthropology, applied behavioral science, biology, psychology, and speech-language-hearing. Each human biology concentration offers major-level courses in topical categories that allow students to focus on areas that interest them most while retaining the interdisciplinary manner of the major. The broad nature of this major can prepare students for a variety of post-undergraduate opportunities.

Undergraduate Admission

Admission to KU

All students applying for admission must send high school and college transcripts to the Office of Admissions. Prospective first-year students should be aware that KU has qualified admission requirements that all new first-year students must meet to be admitted. Consult the Office of Admissions (<http://admissions.ku.edu/>) for application deadlines and specific admission requirements.

Visit the International Support Services (<http://www.iss.ku.edu/>) for information about international admissions.

Students considering transferring to KU may see how their college-level course work will transfer on the Office of Admissions (<http://credittransfer.ku.edu/>) website.

First- and Second-Year Preparation

Because biology study requires preparation in other sciences, students should begin meeting major requirements in the first year. It is particularly important to take CHEM 130 and CHEM 135 in the first year and, for several majors, to take CHEM 330, CHEM 331, CHEM 335, and CHEM 336 in the second year. Ideally, most majors should also take BIOL 150 and BIOL 152 during the first year, as well as BIOL 105.

Majors and Concentrations

Bachelor's degree requirements in biology are modified as necessary. Current requirements are available in the UBP office and online (<http://www.kuub.ku.edu/>). Major programs are offered in biochemistry, biology, human biology, and microbiology. Students may choose to concentrate in a range of specialties in the biological sciences, such as botany, cellular biology, developmental biology, environmental biology, ecology, entomology, genetics, marine biology, molecular biology, neurobiology, paleontology, physiology, systematics, or zoology (invertebrate or vertebrate).

Requirements for the B.A. Major in Human Biology

The curriculum builds from a broad background of general science courses and adds depth in a set of 5 specialized disciplines. Courses in the disciplines emphasize topics related to humans and provide a solid understanding of each field of knowledge.

For general requirements for the B.A. degree, see CLAS General Education Degree Requirements (<https://catalog.ku.edu/liberal->

[arts-sciences/](#)) on the College of Liberal Arts and Sciences Degree Requirements page.

Students must choose 1 concentration from the 5 areas:

- Anthropology
- Applied behavioral science
- Biology
- Psychology
- Speech-language-hearing

Code	Title	Hours
General Science Requirements		
Majors must complete the following 33-hour minimum of general science requirements that serve as foundational courses for this major.		33
Introduction to Human Evolutionary Biology. Satisfied by one of the following:		3-4
ANTH 304	Fundamentals of Biological Anthropology	
ANTH 309	Becoming Human	
ANTH 340	Human Variation and Evolution	
BIOL 412	Evolutionary Biology	
Biology Orientation Seminar. Satisfied by:		
BIOL 105	Biology Orientation Seminar	1
Principles of Molecular & Cellular Biology. Satisfied by one of the following:		3
BIOL 150	Principles of Molecular and Cellular Biology	
BIOL 151	Principles of Molecular and Cellular Biology, Honors	
Principles of Organismal Biology. Satisfied by one of the following:		3
BIOL 152	Principles of Organismal Biology	
BIOL 153	Principles of Organismal Biology, Honors	
Introductory Biology Lab for STEM Majors. Satisfied by:		2
BIOL 154	Introductory Biology Lab for STEM Majors	
Calculus. Satisfied by one of the following:		3-4
MATH 115	Calculus I	
MATH 125	Calculus I	
MATH 145	Calculus I, Honors	
Chemistry I. Satisfied by one of the following:		5
CHEM 130	General Chemistry I	
CHEM 190 & CHEM 191	Foundations of Chemistry I, Honors and Foundations of Chemistry I Laboratory, Honors	
Chemistry II. Satisfied by one of the following:		5
CHEM 135	General Chemistry II	
CHEM 195 & CHEM 196	Foundations of Chemistry II, Honors and Foundations of Chemistry II Laboratory, Honors	
Physics I. Satisfied by one of the following:		4-5
PHSX 114	College Physics I	
PHSX 211 & PHSX 216	General Physics I and General Physics I Laboratory	
Statistics. Satisfied by one of the following:		3-4
BIOL 370	Introduction to Biostatistics (Recommended for the Anthropology and Biology Concentrations)	

PSYC 210	Statistics in Psychological Research (Recommended for the Psychology Concentration)
MATH 365	Elementary Statistics

Anthropology

Code	Title	Hours
Anthropology Concentration		
Majors must complete the following 31 hours. These additional science courses are included in the Human Biology-Anthropology major hours and GPA calculations.		
Organic Chemistry I. Satisfied by the following:		3
CHEM 330	Organic Chemistry I	
Organic Chemistry I Laboratory. Satisfied by:		
CHEM 331	Organic Chemistry I Laboratory	2
Cell Structure & Function. Satisfied by one of the following:		3
BIOL 416	Cell Structure and Function	
BIOL 536	Cell Structure and Function (Honors)	
Principles of Genetics. Satisfied by one of the following:		4
BIOL 350	Principles of Genetics	
BIOL 360	Principles of Genetics, Honors	
Senior Seminar in Human Biology. Satisfied by:		
BIOL 599	Senior Seminar: _____ (Must be taken in senior year)	1
Anthropology Concentration Categories		
Satisfied by completing 2 of the following 4 categories (18-21 hours 18-21 required):		
Category 1: Human Anatomy and Physiology		
Biology of Development. Satisfied by:		
BIOL 417	Biology of Development	
Anatomy and Physiology. Satisfied by completing 9 hours from the following:		
ANTH 648	Human Osteology	
BIOL 240	Fundamentals of Human Anatomy	
BIOL 241	Human Anatomy Observation Laboratory	
BIOL 426	Laboratory in Cell Biology	
BIOL 600	Introductory Biochemistry, Lectures	
BIOL 637	Introductory Biochemistry Laboratory	
BIOL 546	Mammalian Physiology	
BIOL 547	Mammalian Physiology Laboratory	
Category 2: Human Population Biology		
Satisfied by completing 9 hours from the following:		
ANTH 340	Human Variation and Evolution	
ANTH 442	Anthropological Genetics	
ANTH 544	Origins of Native Americans	
ANTH 545	Contemporary Health Issues in Africa	
ANTH 652	Population Dynamics	
Category 3: Human Adaptation and Evolution		
Satisfied by completing 9 hours from the following:		
ANTH 352	Controversies on the Living and the Dead	
ANTH 503	Topics in Biological Anthropology: _____	
BIOL 412	Evolutionary Biology	
Category 4: Human Biology and Behavior		

Satisfied by completing 9 hours from the following:	
ANTH 359	Anthropology of Sex
BIOL 652	Comparative Animal Behavior
BIOL 655	Behavioral Genetics
PSYC 370	Behavioral Neuroscience

Major Hours & Major GPA

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours

Satisfied by 31 hours of major courses.

Major Hours in Residence

Satisfied by a minimum of 15 hours of KU resident credit in the major.

Major Junior/Senior Hours

Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the major.

Major Junior/Senior Graduation GPA

Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (<http://clas.ku.edu/undergrad/tools/gpa/>).

Applied Behavioral Science

Code	Title	Hours
Applied Behavioral Science Concentration		
Majors must complete the following 33 hours. These additional science courses are included in the Human Biology-Applied Behavioral Science major hours and GPA calculations.		
Principles of Genetics. Satisfied by one of the following:		4
BIOL 350	Principles of Genetics	
BIOL 360	Principles of Genetics, Honors	
Introduction to Applied Behavioral Science. Satisfied by:		
ABSC 100	Introduction to Applied Behavioral Science	3
Development. Satisfied by one of the following:		3
ABSC 160	Introduction to Child Behavior and Development	
PSYC 333	Child Development	
Research Methods & Application. Satisfied by:		
ABSC 308	Research Methods and Application	4
Senior Seminar in Human Biology. Satisfied by:		
BIOL 599	Senior Seminar: _____ (Must be taken in senior year.)	1
Applied Behavioral Science Concentration Categories		
Satisfied by completing 2 of the following 4 categories (18-19 hours 18-19 required):		
Category 1: Applied Behavioral Science		
Principles and Procedures of Behavior Modification and Therapy. Satisfied by:		
ABSC 304	Principles and Procedures of Behavioral Interventions	
Applied Behavioral Science. Satisfied by completing 6 hours selected from the following courses:		
ABSC 150	Community Leadership	
ABSC 310	Building Healthy Communities	

or ABSC 311 Building Healthy Communities, Honors	
ABSC 350	The Behavioral Treatment of Children with Autism
ABSC 410	Behavioral Approaches in Working with Adolescents
ABSC 437	Independent Living and People with Disabilities
Category 2: Development: Typical and Atypical	
Child Behavior and Development. Satisfied by:	
ABSC 632	Advanced Child Behavior and Development
Development: Typical and Atypical. Satisfied by completing 6 hours selected from the following:	
ABSC 535	Developmental Psychopathology
BIOL 416	Cell Structure and Function
BIOL 417	Biology of Development
Category 3: Biology of Behavior	
Satisfied by:	
BIOL 544	Comparative Animal Physiology
Biology of Behavior. Satisfied by completing 6 hours selected from the following:	
BIOL 416	Cell Structure and Function
BIOL 435	Introduction to Neurobiology
BIOL 454	Brain Diseases and Neurological Disorders
BIOL 546	Mammalian Physiology
BIOL 547	Mammalian Physiology Laboratory
BIOL 655	Behavioral Genetics
PSYC 370	Behavioral Neuroscience
PSYC 380	Clinical Neuroscience
Category 4: Evolution, Culture, and Behavior	
Evolutionary Biology. Satisfied by:	
BIOL 412	Evolutionary Biology
Evolution, Culture, and Behavior. Satisfied by completing 6 hours selected from the following:	
ANTH 341	Human Evolution
BIOL 428	Introduction to Systematics
BIOL 625	Behavioral Ecology and Sociobiology
BIOL 652	Comparative Animal Behavior

Major Hours & Major GPA

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours

Satisfied by 33 hours of major courses.

Major Hours in Residence

Satisfied by a minimum of 15 hours of KU resident credit in the major.

Major Junior/Senior Hours

Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the major.

Major Junior/Senior Graduation GPA

Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (<http://clas.ku.edu/undergrad/tools/gpa/>).

Biology

Code	Title	Hours
Biology Concentration		
Majors must complete the following 32 hours. These additional science courses are included in the Human Biology-Biology major hours and GPA calculations.		
Organic Chemistry I. Satisfied by the following:		3
CHEM 330	Organic Chemistry I	
Organic Chemistry I Laboratory. Satisfied by:		
CHEM 331	Organic Chemistry I Laboratory	2
Physics II. Satisfied by one of the following:		4
PHSX 115	College Physics II	
PHSX 212	General Physics II	
& PHSX 236	and General Physics II Laboratory	
Principles of Genetics. Satisfied by one of the following:		4
BIOL 350	Principles of Genetics	
BIOL 360	Principles of Genetics, Honors	
Senior Seminar in Human Biology. Satisfied by:		
BIOL 599	Senior Seminar: _____ (Must be taken in senior year.)	1
Biology Laboratory Electives. Course selections from the following categories must include at least 3 hours of laboratory credit, 400 level or above.		
Biology Concentration Categories		
Satisfied by completing 2 of the following 4 categories listed below. 18-20 (18-20 hours required) (Course selections must include at least 3 hours of laboratory credit, 400 level or above.)		
Category 1: Development and Genetics		
Biology of Development. Satisfied by:		
BIOL 417	Biology of Development	
Development and Genetics. Satisfied by completing 6 hours from the following:		
ABSC/PSYC 535	Developmental Psychopathology	
BIOL 405	Laboratory in Genetics	
BIOL 416	Cell Structure and Function	
or BIOL 536	Cell Structure and Function (Honors)	
BIOL 595	Human Genetics	
BIOL 655	Behavioral Genetics	
BIOL 688	The Molecular Biology of Cancer	
PSYC 333	Child Development	
SPLH 566	Language Development	
Anatomy and Physiology		
Mammalian Physiology. Satisfied by:		
BIOL 546	Mammalian Physiology	
Anatomy & Physiology. Satisfied by completing 6 hours from the following:		
BIOL 240	Fundamentals of Human Anatomy	
BIOL 241	Human Anatomy Observation Laboratory	
BIOL 416	Cell Structure and Function	
BIOL 435	Introduction to Neurobiology	
BIOL 600	Introductory Biochemistry, Lectures	
BIOL 637	Introductory Biochemistry Laboratory	

BIOL 547	Mammalian Physiology Laboratory
PSYC 370	Behavioral Neuroscience
PSYC 375	Cognitive Neuroscience
PSYC 380	Clinical Neuroscience
Category 3: Evolution, Ecology, and Adaptation	
Evolutionary Biology. Satisfied by:	
BIOL 412	Evolutionary Biology
Evolution, Ecology, and Adaptation. Satisfied by completing 6 hours selected from the following:	
ANTH 340	Human Variation and Evolution
ANTH 652	Population Dynamics
BIOL 414	Principles of Ecology
BIOL 668	Evolutionary Ecology
Category 4: Human Disease	
Fundamentals of Microbiology. Satisfied by one of the following:	
BIOL 400	Fundamentals of Microbiology
BIOL 401	Fundamentals of Microbiology, Honors
Human Disease. Satisfied by completing 6 hours selected from the following:	
BIOL 402	Fundamentals of Microbiology Laboratory
BIOL 503	Immunology
BIOL 504	Immunology Laboratory
BIOL 506	Bacterial Infectious Diseases
BIOL 507	Bacterial Infectious Diseases Laboratory
BIOL 512	General Virology
BIOL 513	Virology Laboratory
BIOL 518	Bacterial Genetics
BIOL 519	Bacterial Genetics Laboratory
BIOL 595	Human Genetics
BIOL 688	The Molecular Biology of Cancer

Total Hours **32-34**

Major Hours & Major GPA

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours

Satisfied by 32 hours of major courses.

Major Hours in Residence

Satisfied by a minimum of 15 hours of KU resident credit in the major.

Major Junior/Senior Hours

Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the major.

Major Junior/Senior Graduation GPA

Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (<http://clas.ku.edu/undergrad/tools/gpa/>).

Psychology

Code	Title	Hours
Psychology Concentration		
Majors must complete the following 31 hours. These additional science courses are included in the Human Biology-Psychology major hours and GPA calculations.		
Organic Chemistry I. Satisfied by the following:		3
CHEM 330	Organic Chemistry I	
Organic Chemistry I Laboratory. Satisfied by:		
CHEM 331	Organic Chemistry I Laboratory	2
Principles of Genetics. Satisfied by one of the following:		4
BIOL 350	Principles of Genetics	
BIOL 360	Principles of Genetics, Honors	
Research Methods. Satisfied by:		
PSYC 200	Research Methods in Psychology	3
Senior Seminar in Human Biology. Satisfied by:		
BIOL 599	Senior Seminar: _____ (Must be taken in senior year.)	1
Psychology Concentration Categories		
Satisfied by completing 2 of the following 4 categories listed below. (18 hours required)		18
Category 1: Evolution, Adaptation and Health		
Satisfied by completing 9 hours selected from the following:		
PSYC 605	Health Psychology	
ANTH 340	Human Variation and Evolution	
ANTH 341	Human Evolution	
ANTH 442	Anthropological Genetics	
BIOL 412	Evolutionary Biology	
BIOL 595	Human Genetics	
Category 2: Human Development		
Child Development. Satisfied by:		
PSYC 333	Child Development	
PSYC 334	Child Development, Honors	
Human Development. Satisfied by completing 6 hours selected from the following:		
PSYC 430	Cognitive Development	
PSYC/ABSC 632	Advanced Child Behavior and Development	
BIOL 416	Cell Structure and Function	
BIOL 417	Biology of Development	
Category 3: Human Cognition and Language		
Cognitive Psychology. Satisfied by:		
PSYC 318	Cognitive Psychology	
Human Cognition & Language. Satisfied by completing 6 hours selected from the following:		
PSYC 418	Introduction to Cognitive Science	
PSYC 482	Sensation and Perception	
SPLH 466	Language Science	
SPLH 566	Language Development	
Category 4: Neuroscience		
Satisfied by completing 9 hours selected from the following:		
PSYC 370	Behavioral Neuroscience	
PSYC 375	Cognitive Neuroscience	

PSYC 380	Clinical Neuroscience
BIOL 416	Cell Structure and Function
BIOL 435	Introduction to Neurobiology
BIOL 454	Brain Diseases and Neurological Disorders
BIOL 655	Behavioral Genetics

Major Hours & Major GPA

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours

Satisfied by 31 hours of major courses.

Major Hours in Residence

Satisfied by a minimum of 15 hours of KU resident credit in the major.

Major Junior/Senior Hours

Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the major.

Major Junior/Senior Graduation GPA

Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (<http://clas.ku.edu/undergrad/tools/gpa/>).

Speech-Language-Hearing

Code	Title	Hours
Speech-Language-Hearing Concentration		
Majors must complete the following 30 hours. These additional science courses are included in the Human Biology-Speech-Language-Hearing major hours and GPA calculations.		
Physics. Satisfied by one of the following:		4
SPLH 120	The Physics of Speech	
PHSX 115	College Physics II	
Research Methods. Satisfied by:		
SPLH 660	Research Methods in Speech-Language-Hearing	3
Genetics. Satisfied by one of the following:		4
BIOL 350	Principles of Genetics	
BIOL 360	Principles of Genetics, Honors	
Senior Seminar in Human Biology. Satisfied by:		
BIOL 599	Senior Seminar: _____ (Must be taken in senior year.)	1

Speech-Language-Hearing Concentration Categories

Satisfied by completing 2 of the following 4 categories (18-19 hours 18-19 required).

Category 1: Development and Genetics	
Biology of Development. Satisfied by:	
BIOL 417	Biology of Development
Development and Genetics. Satisfied by completing 6 hours selected from the following:	
BIOL 405	Laboratory in Genetics
BIOL 416	Cell Structure and Function
or BIOL 536 Cell Structure and Function (Honors)	
BIOL 595	Human Genetics
BIOL 655	Behavioral Genetics

PSYC 333	Child Development
PSYC 430	Cognitive Development
SPLH 464	Undergraduate Seminar in: _____
or SPLH 764 Seminar in: _____	
SPLH 466	Language Science
SPLH 566	Language Development
Category 2: Anatomy and Physiology	
Mammalian Physiology. Satisfied by:	
BIOL 546	Mammalian Physiology
Anatomy and Physiology. Satisfied by completing 6 hours selected from the following:	
BIOL 240	Fundamentals of Human Anatomy
BIOL 241	Human Anatomy Observation Laboratory
BIOL 547	Mammalian Physiology Laboratory
SPLH 462	Principles of Speech Science
SPLH 463	Principles of Hearing Science
Category 3: Neuroscience	
Physiology of Organisms. Satisfied by:	
BIOL 544	Comparative Animal Physiology
Neuroscience. Satisfied by completing 6 hours selected from the following:	
BIOL 416	Cell Structure and Function
BIOL 435	Introduction to Neurobiology
PSYC 370	Behavioral Neuroscience
PSYC 375	Cognitive Neuroscience
PSYC 380	Clinical Neuroscience
SPLH 464	Undergraduate Seminar in: _____ (Neural Bases of Speech & Voice)
SPLH 464	Undergraduate Seminar in: _____ (Speech Motor Control)
Category 4: Research Practicum	
Satisfied by completing 9 hours selected from the following courses:	
SPLH 464	Undergraduate Seminar in: _____ (Circuit Theory & Bioinstrumentation)
SPLH 449	Laboratory/Field Work in Human Biology (various topics)
SPLH 499	Directed Study in Speech-Language-Hearing

Major Hours & Major GPA

While completing all required courses, majors must also meet each of the following hour and grade-point average minimum standards:

Major Hours

Satisfied by 30 hours of major courses.

Major Hours in Residence

Satisfied by a minimum of 15 hours of KU resident credit in the major.

Major Junior/Senior Hours

Satisfied by a minimum of 12 hours from junior/senior courses (300+) in the major.

Major Junior/Senior Graduation GPA

Satisfied by a minimum of a 2.0 KU GPA in junior/senior courses (300+) in the major. GPA calculations include all junior/senior courses in the field of

study including F's and repeated courses. See the Semester/Cumulative GPA Calculator (<http://clas.ku.edu/undergrad/tools/gpa/>).

Sample 4-year plans for the BA degree in Human Biology with concentrations in the following can be found here: Anthropology (<https://catalog.ku.edu/liberal-arts-sciences/biology/ba-human-biology/anthropology/>), Applied Behavioral Science (<https://catalog.ku.edu/liberal-arts-sciences/biology/ba-human-biology/applied-behavioral-science/>), Biology (<https://catalog.ku.edu/liberal-arts-sciences/biology/ba-human-biology/biology/>), Psychology (<https://catalog.ku.edu/liberal-arts-sciences/biology/ba-human-biology/psychology/>), and Speech-Language-Hearing (<https://catalog.ku.edu/liberal-arts-sciences/biology/ba-human-biology/speech-language-hearing/>), or by using the left-side navigation.

Departmental Honors

Undergraduate majors are eligible to graduate with honors in biology if they fulfill the following requirements:

1. Complete all course work required for the appropriate degree in biology.
2. Achieve a minimum grade-point average of 3.5 in the major.
3. Complete BIOL 499 Introduction to Honors Research with a grade of B or higher.
4. Complete BIOL 699 Biology Honors Research Colloquium with a grade of B or higher.
5. Complete an independent research project under the supervision of a faculty member in an area appropriate to the degree sought.
6. Submit an honors thesis to the honors committee once the research is complete and present the results of the completed research at the honors research symposium.

Students majoring in Human Biology with Anthropology, Applied Behavioral Science, Psychology, or Speech-Language-Hearing concentrations will follow the honors requirements for their respective concentration department.

Specific guidelines and intent forms are available in the Undergraduate Biology Program office and online (<http://www.kuub.ku.edu/>). Candidates must declare their intent to graduate with honors at least 2 semesters before graduation.

Study Abroad

Consult an advisor at least 4 months before undertaking study abroad. Consult the Office of Study Abroad (<http://www.studyabroad.ku.edu/>), 108 Lippincott Hall, for information about study in one of the many countries (e.g., Scotland, Australia, Switzerland) with special arrangements with KU.