

BACHELOR OF SCIENCE DEGREE

HUMAN BIOLOGY

COORDINATE MAJOR

FOR ADDITIONAL INFORMATION, PLEASE CONTACT THE COLLEGE OF NATURAL SCIENCE ADVISING OFFICE

(1) UNIVERSITY REQUIREMENTS

Writing Requirement

Tier I: LB 133 4
 Tier II: Satisfied by completing the Lyman Briggs College History, Philosophy and Sociology of Science and Senior requirements listed below.

Integrative Studies in Arts & Humanities (IAH)

IAH 201-210* 4
 IAH 211-241*†# 4

Integrative Studies in Social, Behavioral & Economic Sciences (ISS)

ISS 200-level course* 4
 ISS 300-level course*‡@ 4

*National, International, & Multicultural Diversity
 Students must include at least one "N" course and one "I" course in their Integrative Studies programs. A "D" course may meet either an "N" or an "I" requirement, but not both.

†Summer 2013 to Summer 2017: LB 331, 333, and 336 will fulfill the IAH "B" university requirement (IAH 211 or higher). Please consult your LBC Academic Advisor for specific details for your program.

‡Summer 2013 to Summer 2017; LB 332, 334, and 335 will fulfill the ISS 300-level university requirement. Please consult your LBC Academic Advisor for specific details for your program.

Beginning Fall 2017; LB 321a, 322a, 323a, 324a, 325a, 326a and 327a will fulfill the IAH university requirement (IAH 211 or higher).

@ Beginning Fall 2017; LB 321b, 322b, 323b, 324b, 325b, 326b and 327b will fulfill the ISS 300-level university requirement.

Please contact your LBC Academic Advisor for specific details for your program. If you fulfilled the LB 331, 332, 333, 334, 335 or 336 requirement you do not need the new Fall 2017 courses.

Mathematics, Biological and Physical Sciences

Satisfied by the Lyman Briggs College requirements in Mathematics, Biological and Physical Sciences (see next section).

(2) LYMAN BRIGGS COLLEGE REQUIREMENTS

Biological Sciences (9 cr.)

Complete ONE of the following groups of courses
 (1) LB 144 & 145 9
 (2) BS 161, 162, 171, & 172 10

Chemistry (9 cr.)

Complete ONE of the following groups of courses
 (1) LB 171, 171L, 172, & 172L 9
 (2) CEM 141, 142, 161, & 162 9
 (3) CEM 151, 152, 161, & 162 9

Physics (8-10 cr.)

Complete ONE of the following groups of courses
 (1) LB 273, 274 8
 (2) PHY 183, 184, 191, & 192 10
 (3) PHY 231, 232, 251, & 252 8

Mathematics (6-8 cr.)

Complete ONE of the following groups of courses
 (1) LB 118 & 119 8
 (2) MTH 132 & 133 7
 (3) LB 118 & STT 231 7
 (4) MTH 132 & STT 231 7

History, Philosophy & Sociology of Science (11-12 cr.)

LB 133 4
 LB 321-327, 330-337, 355, 490E; ENG 473A; HST 425; SOC 368 7-8

Senior Seminar (4 cr.)

LB 492 4

Minimum number of credits required: 120

Minimum cumulative and major grade point average: 2.0

(3) MAJOR REQUIREMENTS

Complete ALL of the following courses (14 cr.)

CEM	251	Organic Chemistry I	3
CEM	252	Organic Chemistry II	3
CEM	255	Organic Chemistry Laboratory	2
NSC	495	Capstone in Human Biology^	2
IBIO	341	Fundamental Genetics	4

^Satisfied by LB 492

Complete ONE of the following courses (3-4 cr.)

ANTR	350	Human Gross Anatomy & Structural Biology	3
IBIO	320	Developmental Biology	4
IBIO	328	Comparative Anatomy & Biology of Vertebrates	4

Complete ONE of the following options (4-8 cr.)

PSL	310	Physiology for Pre-Health Professionals	4
		or	
PSL	431	Human Physiology I	4
PSL	432	Human Physiology II	4

Complete ONE of the following options (4-6 cr.)

BMB	401	Comprehensive Biochemistry	4
		Or	
BMB	461	Advanced Biochemistry I	3
BMB	462	Advanced Biochemistry II	3

Complete ONE of the following courses (3 cr.)

BLD	434	Clinical Immunology	3
MMG	409	Eukaryotic Cell Biology	3
MMG	413	Virology	3
MMG	451	Immunology	3

Complete at least 12 credits from the following courses (12 cr.)~

ANP	441	Osteology & Forensic Anthropology	4
BLD	204	Mechanisms of Disease	3
BLD	324	Fundamentals of Hematology, Hemostasis, & Urinalysis	3
BLD	416	Clinical Chemistry II: Pathophysiology & Body Fluid Analysis	4
BLD	434	Clinical Immunology	3
EPI	390	Disease & Society	4
KIN	310	Physiology Bases of Physical Activity	3
KIN	330	Biomechanics of Physical Activity	3
MMG	301	Introductory Microbiology	3
MMG	302	Introductory Microbiology Laboratory	1
MMG	404	Human Genetics	3
MMG	409	Eukaryotic Cell Biology	3
MMG	413	Virology	3
MMG	431	Microbial Genetics	3
MMG	451	Immunology	3
MMG	461	Molecular Pathogenesis	3
MMG	463	Medical Microbiology	3
NSC	496	Directed Study in Human Biology	1-3
NSC	497	Internship in Human Biology	1-3
NSC	498	Research in Human Biology	1-3
PHM	350	Introductory Human Pharmacology	3
PHM	431	Pharmacology of Drug Addiction	3
PHM	450	Introduction to Chemical Toxicology	3
IBIO	402	Neurobiology	3
IBIO	408	Histology	4
IBIO	425	Cells & Development (W)	4
IBIO	450	Cancer Biology (W)	3
IBIO	483	Environmental Physiology (W)	4

~Courses in this section cannot be double-counted for other requirements. With the approval of the Director of the Human Biology major, credits in research or independent study may be used to satisfy this requirement.

IMPORTANT: This advising guide is presented for planning purposes only. It is the student's responsibility for knowing and following University, college and departmental requirements as stated in the [Academic Programs Catalog](#).

The Academic Advisors will provide information and suggest others based on expressed interests. It is the student's responsibility for enrolling in classes and selecting the number of credits per semester for success. Appointments are made using the [Student Success Dashboard](#).

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Planning Guide

Major Requirements to be completed within Year 1 and 2:

Calculus and Statistics (LB 118 & STT 231 OR LB 119)

Chemistry (LB 171/171L & LB 172/LB 172L)

Biology (LB 144 & 145)

Organic Chemistry (CEM 251, 252, & CEM 255)

Physics (LB 273 & 274)

Major Requirements to be completed within Year 3 and 4:

Anatomy (ANTR 350 OR IBIO 320 OR IBIO 328)

Physiology (PSL 310 OR PSL 431 & 432)

Biochemistry (BMB 401 OR BMB 461 & 462)

Immunology (MMG 451 OR BLD 434 OR MMG 413 OR MMG 409)

Genetics (IBIO 341)

Human Biology Electives (12 credits from “Bio Selective” list)

University/College Requirements to be completed prior to graduation:

Tier I Writing (LB 133)

Integrative Studies in Social Science (ISS 200-level & ISS 300-level OR LB 32XB)

Integrative Studies in Arts & Humanities (IAH 201-210 & IAH 211+ OR LB 32XA)

History, Philosophy, Sociology of Science (2 upper-level HPS courses**)

Senior Seminar/Capstone (LB 492)

**Can double as ISS 3XX and IAH 211+

IMPORTANT: This sample plan is to generate ideas for scheduling your courses and is based on a 15-credit-per-semester model for 4-year graduation. Each student’s plan will be different and based on individual needs, careers goals, math placement, and other factors. The minimum number of credits for graduation is 120.