

# Biology Major (BA)

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Biology is the study of life in all of its abundance, variety, and complexity. Students in the biology major gain a broad knowledge of biological fact and theory, from the molecular to the ecosystem level. They develop their abilities to observe, analyze, and solve problems involving living systems.

Both Bachelor of Science and Bachelor of Arts degrees are available in biology. The B.S. degree is designed primarily for students interested in the health professions, a graduate degree, or employment in biology related fields.

## NOTES

\* Students may use BIO 110, CHM 105, CHM 110, MTH 110, PHY 210/211, and PHY 240/241 to satisfy core requirements.

\* CHM 105 is not required for students who enter Lyon College with a score of 25 or better on the ACT mathematics section (or equivalent SAT score) and a grade of "C" or better in high school chemistry.

**NOTE: To graduate with a Bachelor of Arts or Bachelor of Science degree from Lyon College, students must successfully complete a minimum of 120 semester credit hours comprised of our required Core curriculum (44-48 hours), the requirements of at least one major (credit hours vary per major), and a selection of our Liberal Arts electives. They must also earn at least a 2.00 cumulative grade point average for all work taken at Lyon College and a 2.00 cumulative grade point average in their major, minor, and concentration.**

## Summary of Requirements for a Major in Biology (BA)

Item #	Title	Credits
BIO 110	Principles of Biology I	4
BIO 112	Principles of Biology II	4
BIO 250	Cell Biology	4
BIO 252	Genetics	4
	BIO 340 or BIO 370	4
	BIO 300 or MTH 360 or PSY 235	3
BIO 495	Senior Evaluation	0
CHM 105	Introduction to Chemistry *	4
CHM 110	General Chemistry I	4
MTH 110	Elementary Functions	3
	Biology Major Electives	18

## CORE CURRICULUM

<b>Item #</b>	<b>Title</b>	<b>Credits</b>
	Core Curriculum Requirements (In addition to Major hours)	44-48
	<b>Total Credits</b>	<b>96-100</b>

### BIO 340 or BIO 370

<b>Item #</b>	<b>Title</b>	<b>Credits</b>
BIO 340	Ecology	4
BIO 370	Evolution	4

### BIO 300 or MTH 360 or PSY 235

<b>Item #</b>	<b>Title</b>	<b>Credits</b>
BIO 300	Biostatistics	3
MTH 360	Probability and Statistics	3
PSY 235	Statistics for the Behavioral Sciences	3

### Biology Major Electives

**\*All science electives must be at least 200-level.**

**At least 12 credits must be 300-level or higher; at least 3 courses must have labs.**

## Biology Electives

<b>Item #</b>	<b>Title</b>	<b>Credits</b>
BIO 205	Biomedical Terminology	1
BIO 220	General Botany	4
BIO 222	General Zoology	4
BIO 260	Human Anatomy and Physiology I	4
BIO 262	Human Anatomy and Physiology II	4
BIO 282	Special Topics	1-4
BIO 290	Introduction to Biological Research	1-4
BIO 310	Health Coaching	1
BIO 311	Health Coaching Practicum	1
BIO 320	Teaching in the Biology Laboratory	1
BIO 330	Medical Cell Biology	4
BIO 340	Ecology	4
BIO 345	Speleology	4
BIO 350	Microbiology	4
BIO 352	Molecular Biology	4
BIO 356	Biochemistry	4
BIO 360	Comparative Physiology	4
BIO 364	Developmental Biology	4
BIO 366	Histology	4
BIO 370	Evolution	4
BIO 375	Exercise Physiology	4
BIO 382	Special Topics in Biology	3-4
BIO 470	Directed Study	1-4
BIO 480	Directed Research	1-4

## Chemistry Electives

<b>Item #</b>	<b>Title</b>	<b>Credits</b>
CHM 210	Organic Chemistry I	4
CHM 220	Organic Chemistry II	4
CHM 356	Biochemistry	4

## Exercise Science Electives

<b>Item #</b>	<b>Title</b>	<b>Credits</b>
EXS 375	Exercise Physiology	4

## Physics Electives

<b>Item #</b>	<b>Title</b>	<b>Credits</b>
	PHY 210/211 or PHY 240/241	4
	PHY 220/221 or PHY 250/251	4

## Psychology Electives

<b>Item #</b>	<b>Title</b>	<b>Credits</b>
PSY 318	Biological Psychology	3
PSY 353	Introduction to Evolutionary Psychology	3

## Science Electives

<b>Item #</b>	<b>Title</b>	<b>Credits</b>
SCI 282	Special Topics in Science	1-4
SCI 382	Special Topics in Science	1-4