

THE BIOLOGY MAJOR (BA OR BS)

Professor: David Thomas

Associate Professor: Cassia C. Oliveira

Assistant Professors: Alexander Beeser, Maryline Jones, and Eric South

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.

Program: Biology

SUMMARY OF REQUIREMENTS FOR A MAJOR IN BIOLOGY LEADING TO A BACHELOR OF SCIENCE DEGREE

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	Ecology	4
	Biology Electives (11-12 Credits)	11 - 12
BIO 495	Senior Evaluation	0
CHM 105	Introduction to Chemistry	4
CHM 110	General Chemistry I	4
CHM 120	General Chemistry II	4
CHM 210	Organic Chemistry I	4
CHM 220	Organic Chemistry II	4
MTH 110	Elementary Functions	3

Physics Electives (8 credits)	8
Core Curriculum Requirements	44 - 48
Sub-Total Credits	102-106

SUMMARY OF REQUIREMENTS FOR A MAJOR IN BIOLOGY LEADING TO A BACHELOR OF ARTS DEGREE

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	Ecology	4
	Biology Electives (11-12 Credits)	11 - 12
BIO 495	Senior Evaluation	0
CHM 105	Introduction to Chemistry	4
CHM 110	General Chemistry I	4
CHM 120	General Chemistry II	4
MTH 110	Elementary Functions	3
	Physics Electives (8 credits)	8
	Core Curriculum Requirements	44 - 48
	Sub-Total Credits	94-98

CATEGORY DESCRIPTIONS

Biology Electives (11-12 Credits)

Choose 3 upper division biology courses in the 300-400 level. At least 2 chosen electives must be 4-credit courses; one may be a 3-credit course. BIO 480 may not be used.

Physics Electives (8 credits)

Choose either Group A or Group B to fulfill the Physics requirement.

Students may use General Physics I or Fundamentals of Physics I to satisfy core requirements.

GROUP A

Item #	Title	Credits
PHY 210	General Physics I	3
PHY 211	General Physics I Laboratory	1
PHY 220	General Physics II	3
PHY 221	General Physics II Laboratory	1

GROUP B

Item #	Title	Credits
PHY 240	Fundamentals of Physics I	3
PHY 241	Fundamentals of Physics I Laboratory	1
PHY 250	Fundamentals of Physics II	3
PHY 251	Fundamentals of Physics II Laboratory	1

Core Curriculum Requirements

Developmental requirements (up to 6 credits):

Taken in the first semester, if placed into it:

- ENG 001 College English

Taken in the first year, if placed into it:

- MTH 001 Intermediate Algebra

Proficiency requirements (15 credits):

Taken in the first two years, if not placed out of it:

- MTH 101 College Algebra or
- MTH 103 College Algebra w/Lab or
- MTH 105 Mathematics for Liberal Arts

Taken in the first year (depending on placement):

- ENG 101 English Composition I (taken immediately if placed into it or immediately following completion of ENG 001 with a grade of 'C' or better)
- ENG 102 English Composition II (taken immediately following successful completion of ENG 101 with a grade of 'C' or better)

Recommended but not required in the first year:

- First-year of a foreign language

Common Core requirements (13-14 credits):

Taken in the first year (or within one year of completing any pre-requisite coursework):

- COR 100 Year One
- COR 101 Year One OH ONE

Taken anytime in the first TWO years:

- ENG 105 World Literature
- POL 105 The American Experience

Taken anytime prior to graduation:

- HIS 110 World Civilization
- HIS 112 World Civilization II

Distribution requirements:

One fine arts course (3 credits)

Select from the following:

- ART 101 Introduction to Visual Arts
- ART 201, 202 World Art I and II
- MUS 105 Language of Music
- MUS 110 Music Theory
- THE 101 Introduction to Theatre

One social science course (3 credits)

Select from the following:

- ANT 101 Introduction to Cultural Anthropology
- ECO 101 Principles of Economics I
- PSY 101 Introduction to Psychology

One mathematics course (3-4 credits)

Select from the following:

- MTH 105 Mathematics for Liberal Arts
- MTH 110 Elementary Functions
- MTH 115 Discrete Mathematics or MTH 290 Foundations of Modern Mathematics
- ECO 208 Quantitative Methods in Business, Economics, and Decision Science

- MTH 210 Calculus I
- BUS 323 Statistical Applications to Business Decision Making
- PSY 235 Statistics for the Behavioral Sciences

One lab science course (4 credits)

Select from the following:

- BIO 100, 100L Biology in Context
- BIO 110, 110L Principles of Biology I
- CHM 105, 105L Introduction to Chemistry
- CHM 110, 110L General Chemistry I
- PHY 210, 211 General Physics
- PHY 240, 241 Fundamentals of Physics
- SCI 100, 100L Physical Science for Liberal Arts

One religion/philosophy course (3 credits)

Select from the following:

- RPH 110 Old Testament
- RPH 120 New Testament
- RPH 130 Introduction to Christian Theology
- RPH 140 Introduction to World Philosophies
- RPH 150 World Religions
- RPH 205 Introduction to Ethics

Two physical education courses (0–2 credits)

Select from the following:

- PED courses with designations from 101 to 130
- OLP courses with designations from 120 to 130

NOTE: Only one activity (specified PED/OLP) course can be taken per semester. Additionally, only seven activity credits can be counted toward the graduation requirement.