

B.A. IN BIOLOGY



GENERAL EDUCATION- UK CORE REQUIREMENTS

- 1 Intellectual Inquiry in Arts and Creativity Course - 3 Credit Hours
- 1 Intellectual Inquiry in the Humanities Course - 3 Credit Hours
- 1 Intellectual Inquiry in the Social Sciences Course - 3 Credit Hours
- 1 Intellectual Inquiry in the Natural, Physical, and Mathematical Sciences Course (*satisfied by major*)
- 1 Composition and Communication I Course - 3 Credit Hours
- 1 Composition and Communication II Course - 3 Credit Hours
- 1 Quantitative Foundations Course - satisfied by major
- 1 Statistical Inferential Reasoning Course - satisfied by major
- 1 Community, Culture, and Citizenship in the USA Course - 3 Credit Hours
- 1 Global Dynamics Course - 3 Credit Hours

Total: 21 Credit Hours

GRADUATION COMPOSITION AND COMMUNICATION REQUIREMENT (GCCR)

*Oral Component - BIO 425 (*satisfied by major*)

*Written Component (choose one):

- BIO 398: Research and Writing in Biology - 1-3 Credit Hours
- BIO 404: Advanced Genetics - 3 Credit Hours
- BIO 405: Human Genetics - 3 Credit Hours
- BIO 418: Ecological Genetics - 3 Credit Hours
- BIO 430G: Plant Physiology - 4 Credit Hours
- BIO 445: The Biology of Sex - 3 Credit Hours
- WRD 305: Writing Public Science - 3 Credit Hours
- WRD 310: Writing in the Natural Sciences - 3 Credit Hours

These courses can also count towards the 15 hours of Biology Major Electives and 12 hours of Tracks.

Total: 1-4 Credit Hours

COLLEGE REQUIREMENTS

6 credit hours Natural Sciences Courses (*satisfied by major*)

6 credit hours Social Sciences Courses

6 credit hours Humanities Courses

3 credit hours Race & Ethnicity course

6 credit hours A&S Electives

Foreign Language: Complete 202 course of one language OR 2 semesters of one language and 3 semesters of a different language - 0-15 Credit Hours

Total: 21 Credit Hours + Foreign Language Hours

PRE-MAJOR REQUIREMENTS

BIO 148: Introductory Biology I - 3 Credit Hours

BIO 152: Principles of Biology II - 3 Credit Hours

BIO 155: Introductory Biology Lab I OR BIO 198: Scholars Biology Research - 1-2 Credit Hours

CHE 105: General College Chemistry I AND CHE 111: General Chemistry Lab I - 5 Credit Hours (4+1 hours)



CHE 107: General College Chemistry II AND CHE 113: General Chemistry Lab II - 5 Credit Hours (3+2 hours)

MA 137: Calculus I OR MA 113: Calculus I OR MA 123: Elem Calculus and its Applications - 4 Credit Hours

*The CHE 105 requirement can be satisfied with CHE 109 and CHE 110 (8 Credit Hours).

Total: 21-26 Credit Hours

MAJOR REQUIREMENTS

Minimum major requirement for graduation is 54 credit hours in courses as detailed below. The overall GPA and Major GPA must be at least 2.0.

CORE COURSES

1st Tier Core

BIO 303: Intro to Evolution - 4 Credit Hours

BIO 304: Principles of Genetics - 4 Credit Hours

The above two courses have an embedded laboratory component

2nd Tier Core (To be taken after completion of 1st Tier Core)

Choose two of the following three courses:

- BIO 315: Intro to Cell Biology - 4 Credit Hours

- BIO 325: Ecology - 4 Credit Hours

- BIO 350: Animal Physiology OR BIO 430G: Plant Physiology - 4 Credit Hours

* The above three courses have an embedded laboratory component*

BIO 425: Biology Seminar - 1 Credit Hour

STA 296: Statistical Methods and Motivations - 3 Credit Hours

Core Total: 20 Credit Hours

COURSES OUTSIDE THE MAJOR

CHE 230: Organic Chemistry I OR CHE 236: Survey of Organic Chemistry - 3 Credit Hours

CHE 231: Organic Chemistry Lab I - 1 Credit Hour

PHY 211: General Physics OR PHY 151*: Intro to Physics - 3-5 Credit Hours

*PHY 151 is not accepted for admission into Medical, Dental, or Pharmacy School. Check with your advisor before choosing a physics course.

Outside Major Total: 7-9 Credit Hours

OPTIONS FOR BA ELECTIVES

Complete ONE of the following options. Students cannot mix and match requirements from the two options.

OPTION A – MINOR OPTION

➤ MINOR

Complete the requirements for any minor other than the Biology Minor - 18-21 Credit Hours

➤ **BIOLOGY ELECTIVES** 13-15 HOURS

4-9 Credit Hours to be chosen from 300+ level BIO courses or the full list of acceptable electives. A maximum of only three credits of Independent Research (BIO 395) may be used as electives in this section. Note: ANA 209, BIO 208 and PGY 206 CANNOT be used for this requirement.

For the B.A. with Minor option, a minimum of 6 of the 4-9 upper-level elective credit hours be BIO courses. If fewer than 6 hours are required to complete the requirements, all hours must be BIO courses
Biology Electives. ***

If students double-dip major and minor requirements, additional biology electives must be taken to meet the graduation requirement of 54 hours for the BA in Biology.

14 OF THESE HOURS MUST BE AT THE 300-LEVEL OR ABOVE*

Option A Total: 25-27 Credit Hours

OPTION B – TOPICAL FOCUS OPTION

➤ **TOPICAL FOCUS** 12 HOURS

Students who have multiple interests or interests that do not fall into the requirements for a minor offered at the University of Kentucky may select a 12-credit hour sequence of courses with a topical focus. Courses in several disciplines and in the various interdisciplinary programs may be combined to pursue the topical focus. Students interested in pursuing Option B MUST have the 12-credit hour sequence of courses APPROVED IN ADVANCE by the Director of Undergraduate Studies, Dept. of Biology. Students must submit an APPROVAL OF TOPICAL FOCUS FORM to the DUS.

Complete a 12-credit hour sequence of courses with a topical focus. At least 6 of these hours must be at the 300-level or above.

➤ **BIOLOGY ELECTIVES** 13-15 HOURS

13-15 Credit Hours to be chosen from 300+ level BIO courses or the full list of acceptable electives. A maximum of only six credits of Independent Research (BIO 395) may be used as electives in this section. Note: ANA 209, BIO 208 and PGY 206 CANNOT be used for this requirement.

For the B.A. with Topical Focus, a minimum of 9 of the 13-15 upper-level electives must be BIO courses

➤➤**TRACK** 12 HOURS

From among the 15 credits of Electives, 12 credits must be from a specific Track (or Specialization) that must be declared in the Junior year. Only 3 credits of BIO 395 may count towards the Track. Students may choose a track from the following:

- Cellular, Molecular, and Developmental Biology Track
- Ecology and Evolutionary Biology Track
- Genetics, Genomics, and Bioinformatics Track
- Physiology and Behavior Track



- Plant Biology Track, B.S.
- Pre-Professional Track
- General Biology Track

14 OF THE HOURS WITHIN THE OPTION B COURSES MUST BE AT THE 300-LEVEL OR ABOVE*

Option B Total: 25-27 Credit Hours

Total Credit Hours for Major = 54 Credit Hours

Total Credit Hours for Graduation = 120 Credit Hours

*Note: Students earning a BA in Biology must take at least 39 hours of 300-level or above course work.