

Biological Sciences Career Exploration Track

Major Description:

Are planning for a career in Medicine, Dentistry, Optometry, Pharmacy, Physician’s Assistant, Physical Therapy, or Veterinary Medicine? Or maybe your interest is in Forensic Science, Conservation, or Aquatic Ecology? Or do you have a passion for working with plants or animals?

The NKU Biological Sciences Program offers a solid foundational program that will help you reach your goals! Our innovative teaching and research labs are equipped to train you on state-of-the-art equipment. We have experiential learning through internships, practicums, and professional shadowing. You can study anatomy of the human body with our cadaver-based courses or try a unique biology study abroad course to Costa Rica, Belize, or Sweden. You can take courses or conduct experiments at the NKU Research and Educational Field State that includes a variety of woodland and wetland habitats. You can collaborate with faculty on real-world research in the field or in the laboratory. Student researchers present their findings at regional, national, and international conferences.

Course Plan:

Semester	Course
1 st Semester	BIO 150/L, Intro to BIO I with lab/ BIO 155*, Orientation to Biology
2 nd Semester	BIO 151/L, Intro to BIO II with lab
3 rd Semester	CHE 120/L, General Chemistry I with lab
4 th Semester	CHE 121/L, General Chemistry II with lab

*For students planning to major in Biological Sciences or Neuroscience at NKU, it is highly recommended that BIO 155 is taken during the same semester as BIO 150/L

Course Descriptions:

BIO 150: Intro to Biology I (4 credits)

Prerequisite(s): Math ACT of 22 or higher (or equivalent placement), P in [MAT 101](#), or C- or better or higher in [MAT 102](#) or higher.

Co-requisite(s): [BIO 150L](#).

The chemistry of life; cell structure and function; photosynthesis and respiration; cellular reproduction and Mendelian genetics; gene regulation and DNA technology. Suggested only for students majoring or minoring in biological sciences, other natural sciences or other preprofessional programs.

General Education Credit: Natural Science

BIO 150L: Intro to Biology I Lab (0 credits)

Co-requisite(s): [BIO 150](#).

Laboratory to accompany [BIO 150](#).

General Education Credit: Natural Science

BIO 155: Orientation to Biology (1 credit)

Prerequisite OR Co-requisite: BIO 150

Biological issues and applications, methodology, career opportunities, and post-graduate options. Classroom discussions, faculty panels, and written essays.

BIO 151: Intro to Biology II (4 cr)

Prerequisite(s): [BIO 150](#) with a C- or better.

Co-requisite(s): [BIO 151L](#).

Population genetics and evolution; systematic and diversity of life; organismal systems anatomy and physiology; interrelationships among organisms and between organisms and their environment.

BIO 151L: Intro to Biology II Lab (0 credits)

Co-requisite(s): [BIO 151](#).

Laboratory to accompany [BIO 151](#).

Course Descriptions:

CHE 120: General Chemistry I (3 credits)

Prerequisite(s): High school chemistry and Math ACT of 23 (or equivalent placement) or higher or able to enroll in [MAT 103](#) or equivalent; OR a B- or better in [CHE 102](#) .

Co-requisite(s): [CHE 120L](#).

Taught: Fall and spring

Principles of chemistry; physical and chemical properties of elements and compounds.

General Education Credit: Natural Science

CHE 120L: General Chemistry I Lab (1 credit)

Hours: 0 classroom + 3 lab/studio

Co-requisite(s): [CHE 120](#).

Taught: Fall and spring

Experiments describing principles of chemistry as well as those describing physical and chemical properties of elements and compounds.

General Education Credit: Natural Science

CHE 121: General Chemistry II (3 credits)

Prerequisite(s): C- or better in [CHE 120](#) or CHE 120H.

Taught: Spring and summer

Continuation of [CHE 120](#). Enrollment in [CHE 121L](#) is strongly encouraged but is not required.

CHE 121L: General Chemistry II Lab (1 credit)

Prerequisite(s): C- or better in [CHE 120L](#) or CHE 120HL.

Prerequisite OR Co-requisite: [CHE 121](#).

Taught: Spring and summer

Continuation of [CHE 120L](#).

Links:

[Biological Sciences Program Website](#)