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:

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