

Biology, B.S.

Program Description

The program of study in Biology leading to a Bachelor of Science degree provides students with the opportunity to pursue biology with the necessary specialization to succeed in a wide array of post-baccalaureate opportunities. Biology is a steppingstone for success in local biotechnology industries, in helping the state navigate biological interactions with people, in helping students into research careers. We are a diverse and inclusive program that can help you get where you want to be.

Human Health Concentration:

Our concentration in Human Health can support students interested in careers in health care with a meaningful focus in their educational opportunities. Whether you are interested in giving back as a medical doctor, a dentist, an ophthalmologist, or a myriad other individuals helping people feel better, the courses in this concentration can give you a strong foundation for your further education.



This program is a part of the College of Science and Mathematics.

Admission, Enrollment, and Graduation Policies

Admission Requirements

This program does not have specific admission requirements and only admission to Kennesaw State University is required. For more information, please visit the Admissions section of the Catalog.

Graduation Requirements

Each student is expected to meet the requirements outlined in Academic Policies 5.0 PROGRAM REQUIREMENTS & GRADUATION.

Program Course Requirements

Core IMPACTS Curriculum (42 Credit Hours)

General Education Core IMPACTS Curriculum

Core IMPACTS Curriculum Requirements Specific to This Major

Science Majors: Must take MATH 1113 or higher in Mathematics & Quantitative Skills and MATH 1179 or higher in Applied Math.

Science and Engineering Majors: Must take two four-hour laboratory sciences in Natural Sciences. Students must choose from CHEM 1211 / 1211L, CHEM 1212 / 1211L, PHYS 1111 / 1111L*, PHYS 1112 / 1112L, PHYS 2211 / 2211L*, PHYS 2212 / 2212L, BIOL 1107 / 1107L, or BIOL 1108 / 1108L.

*Students cannot take both PHYS 1111/L and PHYS 2211/L nor PHYS 1112/L and PHYS 2212/L.

Core Field of Study (18 Credit Hours)

Students must earn a grade of "C" or better in these courses.

- BIOL 1107: Principles of Biology I
- BIOL 1107L: Principles of Biology I Laboratory
- BIOL 1108: Principles of Biology II
- BIOL 1108L: Principles of Biology II Laboratory
- CHEM 1211: Principles of Chemistry I
- CHEM 1211L: Principles of Chemistry Laboratory I
- CHEM 1212: Principles of Chemistry II
- CHEM 1212L: Principles of Chemistry Laboratory II

Two (2) credit hours carried over from Technology, Mathematics and Sciences.

Major Requirements (22 Credit Hours)

Students must earn a grade of "C" or better in these courses.

Biology Required Courses (16 Credit Hours)

- BIOL 3300: Genetics
- BIOL 3300L: Genetics Laboratory
- BIOL 3370: Ecology
- BIOL 3370L: Ecology Laboratory
- BIOL 3410: Cell Biology
- BIOL 4399: Seminar * may only be taken once for credit.
- CHEM 3361: Modern Organic Chemistry I
- CHEM 3361L: Modern Organic Chemistry Lab I

Science and Mathematics Required Course (3 Credit Hours)

- SCM 2000: Culture and Success in Science and Mathematics

Statistics Required Course (3 Credit Hours)

Select 3 credit hours from the following list of courses:

- IET 2227: Probability and Statistics I
- PSYC 3000: Statistical Applications in Psychological Science
- STAT 1401: Elementary Statistics
- STAT 3125: Biostatistics

Major Concentrations (29 Credit Hours)

Students must earn a grade of "C" or better in these courses.

General Biology Concentration

Elective Courses (29 Credit Hours)

Select 29 credit hours of 3000–4000 level coursework from the University Catalog. At least 20 credit hours must be BIOL coursework.

- Elective choices may include a maximum of 8 research credit hours (BIOL 3110L, BIOL 4400, BIOL 4402, BIOL 4450, CHEM 4100, CHEM 4120L, CHEM 4400, RES 4000, RES 4100).
- Elective choices may include a maximum of 4 internship credit hours (BIOL 3398).

Human Health Concentration

Human Health Courses (15 Credit Hours)

Choose 15 credit hours from the following list of courses. Students must select at least one additional laboratory course (K or L courses).

- BIOL 3317: Pathophysiology
- BIOL 3327: Medical Genetics
- BIOL 3338K: Histology
- BIOL 3340: Microbiology
- BIOL 3340L: Microbiology Laboratory
- BIOL 3375K: Behavioral Biology
- BIOL 4115: Parasitology
- BIOL 4350K: Comparative Vertebrate Anatomy
- BIOL 4390K: Developmental Biology
- BIOL 4431: Human Physiology

- BIOL 4431L: Human Physiology Laboratory
- BIOL 4440: Toxicology
- BIOL 4460K: Medical Microbiology
- BIOL 4465: Immunology
- BIOL 4475: Virology
- BIOL 4486: Bioethics
- BIOL 4550: Cancer Biology
- BIOL 4610: Advanced Topics in Anatomy & Physiology
- CHEM 3010: Medicinal Chemistry
- CHEM 3030: Pharmaceutical Analytical Chemistry
- CHEM 3362: Modern Organic Chemistry II
- CHEM 3362L: Modern Organic Chemistry Lab II
- CHEM 3500: Biochemistry
- CHEM 3501L: Biochemistry I Laboratory
- STAT 4025: Clinical Trial Design
- STAT 4125: Analysis of Human Studies

Elective Courses (14 Credit Hours)

Select 14 credit hours of 3000–4000 level coursework from the University Catalog. At least 5 credit hours must be BIOL coursework.

- Elective choices may include a maximum of 8 research credit hours (BIOL 3110L, BIOL 4400, BIOL 4402, BIOL 4450, CHEM 4100, CHEM 4120L, CHEM 4400, RES 4000, RES 4100).
- Elective choices may include a maximum of 4 internship credit hours (BIOL 3398).

University Electives (9 Credit Hours)

In accordance with KSU Graduation Policy, students must earn a grade of "D" or better in these courses while maintaining a minimum 2.00 cumulative GPA.

Free Electives (9 Credit Hours)

Select 9 credit hours of 1000–4000 level coursework from the University Catalog.

Program Total (120 Credit Hours)