

Website (<https://cos.northeastern.edu/biology/>)

**James Monaghan, PhD**

Chair and Professor of Biology

ISEC 308

617.373.6539

Advising website (<http://www.tinyurl.com/bioadv/>)

The Department of Biology offers two majors, the BS in Biology and the BS in Cell and Molecular Biology. Both majors lay the groundwork for strong scientific training with basic coursework in mathematics, chemistry, and physics, relevant to biology. In the biology major, students explore the organization and processes of life, from molecules and cells through organs and organ systems to populations, ecosystems, and evolution. The BS degree in cell and molecular biology offers a more focused program of study emphasizing processes operating at the cellular and molecular levels of biological systems. In both majors, students can select advanced electives to specialize in a subdiscipline of biology such as developmental biology, stem cell biology, microbiology, or physiology.

Our programs provide a wide range of relevant co-op opportunities in the renowned Boston-area biotechnology industry, hospitals, and research institutions, as well as across the country and at international sites.

There are a number of interdisciplinary opportunities involving biology. These include programs in behavioral neuroscience and in biochemistry, as well as combined majors between biology and computer science, data science, mathematics, English, or political science. Due to curricular overlap, combinations of any two of these programs or of any one of these programs with ecology and evolutionary biology, marine biology, or bioengineering are not offered.

Several accelerated graduate degree programs are available for students majoring in biology, cell and molecular biology, and our many combined majors including: MS in Bioinformatics, MS in Biotechnology, MS in Cell and Gene Therapies, and PhD in Biology.

Our degree programs are designed to prepare students to enter the job market directly or to go on to graduate, medical, veterinary, dental, law, or business school. Our graduates are qualified for a wide array of career paths in industrial and clinical research in any of the life sciences, in teaching at all levels, in state or federal government agencies, and in medicine and other health-care-related professions. Premedical, pre dental, and other preprofessional students are urged to consult with the prehealth advising program early in their careers at Northeastern University.

## Programs

### Bachelor of Science (BS)

- Biology (Boston) (<https://catalog.northeastern.edu/undergraduate/science/biology/biology-bs/>)
- Biology (Oakland) (<https://catalog.northeastern.edu/undergraduate/science/biology/biology-bs-oak/>)
- Biology and English (Boston) (<https://catalog.northeastern.edu/undergraduate/science/biology/biology-english-bs/>)
- Biology and Mathematics (Boston) (<https://catalog.northeastern.edu/undergraduate/science/biology/biology-mathematics-bs/>)
- Biology and Political Science (Boston) (<https://catalog.northeastern.edu/undergraduate/science/biology/biology-political-science-bs/>)
- Cell and Molecular Biology (Boston) (<https://catalog.northeastern.edu/undergraduate/science/biology/cell-molecular-biology-bs/>)
- Computer Science and Biology (Boston) (<https://catalog.northeastern.edu/undergraduate/computer-information-science/computer-information-science-combined-majors/computer-science-biology-bs/>)
- Computer Science and Biology (Oakland) (<https://catalog.northeastern.edu/undergraduate/computer-information-science/computer-information-science-combined-majors/computer-science-biology-bs-oak/>)
- Data Science and Biology (Boston) (<https://catalog.northeastern.edu/undergraduate/computer-information-science/computer-information-science-combined-majors/data-science-biology-bs/>)

### Minors

- Bioethics (<https://catalog.northeastern.edu/undergraduate/science/biology/bioethics-minor/>)
- Biology (<https://catalog.northeastern.edu/undergraduate/science/biology/biology-minor/>)
- Cell and Molecular Biology (<https://catalog.northeastern.edu/undergraduate/science/biology/cell-molecular-biology-minor/>)
- Science Writing (<https://catalog.northeastern.edu/undergraduate/science/biology/science-writing-minor/>)

### Accelerated Programs

See Accelerated Bachelor/Graduate Degree Programs (<https://catalog.northeastern.edu/undergraduate/science/accelerated-bachelor-graduate-degree-programs/#programtext>)