Biology

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

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The PhD program in biology emphasizes close interaction between graduate students and faculty in developing the intellectual and experimental skills required for creative independent research. Rigorous courses in a core biology curriculum, as well as advanced courses in particular research interests, are complemented by intensive research culminating in completion of a dissertation under faculty supervision. Students have an opportunity to declare a concentration in either cell and molecular biology or molecular microbiology.

The Department of Biology oversees the bioinformatics Master of Science program. The interdisciplinary program provides cross-disciplinary training in biology, computer science, and informational technology, preparing students for cutting-edge jobs in the biotechnology and pharmaceutical industries. The program consists of four parts: fundamental courses, core courses, co-op and experiential learning, and electives.

The Graduate Certificate in Bioinformatics offers professionals working in the research, healthcare, and pharmaceutical industries the ability to employ bioinformatics algorithms and techniques to biological problems in their current practice. It also gives people looking to switch careers the data and genomic analysis skills needed to be more competitive in the biological and pharmaceutical industries.

The Graduate Certificate in Omics provides students the opportunity to explore in detail the key genomic technologies and computational approaches that are driving advances in prognostics, diagnostics, and treatment, learning how scientists sequence, assemble, and analyze the function and structure of genomes. The certificate explores methods for determining traits and diseases by studying the larger population as well as how gene identification can help identify targets for therapeutic intervention. Students that are already in the field or have an interest will significantly benefit from a certificate like this.

Programs

Doctor of Philosophy (PhD)

- Biology (https://catalog.northeastern.edu/graduate/science/biology/biology-phd/)

Master of Science (MS)

- Bioinformatics (https://catalog.northeastern.edu/graduate/science/biology/bioinformatics-ms/)
- Cell and Gene Therapies (https://catalog.northeastern.edu/graduate/science/biology/cell-gene-therapies-ms/)

Graduate Certificate

- Bioinformatics (https://catalog.northeastern.edu/graduate/science/biology/bioinformatics-graduate-certificate/)
- Omics (https://catalog.northeastern.edu/graduate/science/biology/omics-graduate-certificate/)