

Graduate Certificate Programs

The College of Science is pleased to offer several graduate certificate programs for working professionals as well as post-baccalaureate students who want to build their knowledge in growing fields. Graduate certificates are offered in Biotechnology, Bioinformatics, and Nanomedicine. These programs are ideal for people already in the field who want to enhance their career, or people who are looking to make a change.

- Graduate Certificate in Bioinformatics: This certificate program 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.
- Graduate Certificate in Biotechnology: Designed in response to a need in the biotechnology industry for individuals without a biotechnology background to obtain a strong foundation in basic biotechnology concepts and skills.
- Graduate Certificate in Experimental Biotechnology: Learn the necessary skills used in biotherapeutic development through lab courses and traditional classroom learning.
- Graduate Certificate in Molecular Biotechnology: Become more knowledgeable about state-of-the-art molecular biology techniques and advanced protein structure analysis. Students will learn to generate and optimize molecular forms used to express recombinant proteins to be used as biopharmaceuticals.
- Graduate Certificate in Process Sciences: Students will learn the sciences of interactions of the biological molecules in the process conditions and the relevant process technology, such as, freeze drying, needed for drug product manufacturing.
- Graduate Certificate in Biopharmaceutical Analytical Sciences: In this certificate program students will learn the principles and practices of state-of-the-art analyses of protein structures with focus on the characterization and quantification of proteins and variant derivatives.
- Graduate Certificate in Pharmaceutical Technologies: The focus of this certificate is on the conversion of purified proteins to biopharmaceutical drug products that are compatible for clinical use.
- Graduate Certificate in Regulatory Science: Designed in response to a need in the biotechnology industry for individuals, in particular regulators, to obtain a strong foundation in the science behind good regulatory practice today, specifically in relation to biopharmaceuticals.
- Graduate Certificate in Biotechnology Enterprise: Students will learn the fundamental concepts of leadership, entrepreneurship and innovation, financial decision making and marketing.
- Graduate Certificate in Nanomedicine: This certificate is designed for scientists, engineers, and physicians to develop competency and practical skills in the application of nanotechnology to problems in medicine.

Program Requirements

Biology

- Bioinformatics (<http://catalog.northeastern.edu/graduate/science/bioinformatics-graduate-certificate>)

Chemistry and Chemical Biology

- Biopharmaceutical Analytical Sciences (<http://catalog.northeastern.edu/graduate/science/chemistry-chemical-biology/biopharmaceutical-analytical-science-graduate-certificate>)
- Biotechnology (<http://catalog.northeastern.edu/graduate/science/chemistry-chemical-biology/biotechnology-graduate-certificate>)
- Biotechnology Enterprise (<http://catalog.northeastern.edu/graduate/science/chemistry-chemical-biology/biotechnology-enterprise-graduate-certificate>)
- Experimental Biotechnology (<http://catalog.northeastern.edu/graduate/science/chemistry-chemical-biology/experimental-biotechnology-graduate-certificate>)
- Molecular Biotechnology (<http://catalog.northeastern.edu/graduate/science/chemistry-chemical-biology/molecular-biotechnology-graduate-certificate>)
- Pharmaceutical Technologies (<http://catalog.northeastern.edu/graduate/science/chemistry-chemical-biology/pharmaceutical-technologies-graduate-certificate>)
- Process Science (<http://catalog.northeastern.edu/graduate/science/chemistry-chemical-biology/process-science-graduate-certificate>)
- Regulatory Science (<http://catalog.northeastern.edu/graduate/science/chemistry-chemical-biology/regulatory-science-graduate-certificate>)

Physics

- Nanomedicine (<http://catalog.northeastern.edu/graduate/science/physics/nanomedicine-graduate-certificate>)