

PlusOne Programs

Master's Degree Programs for Northeastern Undergraduates

The PlusOne program allows students the opportunity to pursue both a bachelor's and master's degree successively in a condensed period of time.

For students pursuing a PlusOne degree, several courses/ credits of undergraduate work are replaced by graduate coursework, thus permitting the completion of an undergraduate degree, as well as a full master's degree, in a shorter period of time than would be possible if students pursued each degree separately through the traditional route. In most programs, with appropriate academic progress, students receive the master's degree one year after completing the undergraduate degree.

Depending on the program, students have the opportunity to do additional co-ops, work on an independent research project, and participate in other experiential learning opportunities. These experiences sharpen their critical thinking and analysis skills, while providing additional professional experience, making them more competitive upon entering the workforce.

When to Apply

COS undergraduate students should apply to enter the PlusOne program no earlier than their fifth academic semester and at least two semesters before expecting to earn the Bachelor of Science Degree.

CPS undergraduate students should apply to enter the PlusOne program after completing one semester at CPS, and at least two semesters before expecting to earn the Bachelor of Science Degree.

Application Deadlines:

Fall – August 1

Spring – December 1

Graduate Student Services

COSGradAdmissions@northeastern.edu 617-373-4275

Note: Any financial aid a student may have received from the university while an undergraduate will not continue once the student obtains graduate status. **PlusOne students are not eligible for the Double Husky Scholarship**

cos.northeastern.edu

Rev. 05/2023

Northeastern University
College of Science



MS Biotechnology

Eligibility and Admission

Students must be pursuing one of the following undergraduate degrees:

- BS Biology
- BS Biochemistry
- BS Biotechnology
- BS Cell and Molecular Biology
- BS Chemistry

A minimum cumulative 3.000 GPA is required

Course Prerequisites

BS Biology

BS Biochemistry

BS Cell and Molecular Biology

- BIOL 3611/3612 Biochemistry
- BIOL 2301/2302 Genetics and Molecular Biology
- CHEM 2313/2314 Organic Chemistry

BS Chemistry

- CHEM 2317/2318 Organic Chemistry 2 for Majors
- CHEM 2331 Bioanalytical Chemistry

Co-op Prerequisites for COS students

- A total of 2 co-ops are required prior to completing the undergraduate degree.
- At least one co-op in the biotechnology/biopharmaceutical industry or in an academic laboratory involved in biotechnology/biopharmaceutical research is required prior to applying.

Application Process

See Northeastern's College of Science website for more information and details on how to apply: <https://cos.northeastern.edu/admissions/graduate-programs/plusone-accelerated/>

Curriculum Requirements

A maximum of 17 graduate credits completed as an undergraduate can be used toward the Master of Science degree.

A fixed series of prescribed courses *taken as an undergraduate* (see below) replaces some of the required courses and science electives taken for the Bachelor of Science degree.

Required courses to complete as an undergraduate student

BS Biology

BS Biochemistry

BS Cell and Molecular Biology

- BIOL 4707 Cell & Molecular Biology (4 SH) *this undergraduate course replaces the requirement but not the credits for the 3-credit graduate version BIOL 6299*
- BIOT 5621 Protein Principles in Biotechnology (3 SH)
- BIOL 5591 Advanced Genomics (4 SH)
- BIOT 5120 Foundations in Biotechnology (3 SH)
- BIOT 5631 Cell Culture Processes for Biopharmaceutical Production (3 SH)
- BIOT 5219 The Biotech Enterprise (2 SH)
- BIOT 6214 Experimental Design and Biostatistics (2 SH)

BS Biotechnology (CPS)

- BIOT 5120 Foundations in Biotechnology (3 SH)
- BIOT 5631 Cell Culture Processes for Biopharmaceutical Production (3 SH)
- BIOT 5219 The Biotech Enterprise (2 SH)
- BIOT 5145 Basic Biotech Lab Skills (1 SH)
 - Enterprise concentration - 1 SH elective such as BIOT 5220 Patents in the Biotech Industry
- BIOT 5621 Protein Principles in Biotechnology (3 SH)
- BIOL 6299 Molecular Cell Biology for Biotechnology (3 SH)
- BIOT 6214 Experimental Design and Biostatistics (2 SH)
- INT 2000 Experiential Project Preparation (0 SH) or BIOT 6500 Professional Development for Co-op (0 SH)

BS Chemistry

- BIOT 5120 Foundations in Biotechnology (3 SH)
- BIOT 5631 Cell Culture Processes for Biopharma Production (3 SH)
- BIOT 5219 The Biotech Enterprise (2 SH)
- BIOT 5145 Basic Biotech Lab Skills (1 SH)
 - Enterprise concentration - 1 SH elective such as BIOT 5220 Patents in the Biotech Industry
- BIOT 5621 Protein Principles in Biotechnology (3 SH)
- BIOL 6299 Molecular Cell Biology for Biotechnology (3 SH)
- BIOT 6214 Experimental Design and Biostatistics (2 SH)

You will not be permitted to register for MS Biotechnology (BIOT) courses until you have confirmed PlusOne enrollment.

Required courses to complete as a graduate student

Once you complete the undergraduate degree you become a full-time graduate student, enrolling in the same courses (17 credits) as other second year graduate students in the MS in Biotechnology program, including BIOT 6500 Professional Development for Co-op and BIOT 6964 Co-op Work Experience. A minimum of 34 graduate credits are required to complete Master of Science degree.

Other Information

PlusOne students meet with the graduate co-op coordinator within one month of starting the program in order to plan the timing of the graduate co-op.