

BIOTECHNOLOGY AND ENTREPRENEURSHIP (MS)

NYSED: 31131 HEGIS: 0499.00 CIP: 26.1201

Program Description

Analysts predict biotechnology will be one of the most important applied sciences in the 21st century. Every day seems to welcome yet another important advancement in the field and, with each development, a chance to grow a business.

Individuals who want take advantage of those advancements are invited to apply to the School of Engineering's master's in Biotechnology and Entrepreneurship program. We arm them with the skills to develop innovative products; they take those tools and launch high-tech businesses.

To enhance relevant skills students who are interested in doing an internship in industry, e.g. a pharmaceutical company or a biotech start-up, should register for a Project course (elective). Biotechnology master's students can take Project courses too. To learn more about these opportunities see what our students say below.

Subject to advisor's approval students can also take an elective course at other Schools within NYU. For example, Biotechnology and Entrepreneurship students can select a course at NYU Stern School of Business.

Admissions

You should have an undergraduate degree in a science or engineering discipline and must have taken undergraduate courses in biochemistry and cell and molecular biology.

To ensure the most efficient application processing, submit your application before sending documents or submitting test scores.

Mailing Address

(For all application documents. Please note that this is our document processing center in Pennsylvania):

NYU Tandon School of Engineering
Graduate Admissions Processing Center
458 Pike Road
Huntingdon Valley, PA 19006

Cyber Fellows applicants can review application requirements here. (<https://engineering.nyu.edu/academics/programs/cybersecurity-ms-online/nyu-cyber-fellows/>) All other applicants, review the requirements below.

Personal Essay

As part of your application, you are expected to provide a response, in written form, to two prompts. A response to both prompts is required. This is an opportunity for you to give us a stronger sense of who you are, as a person. Your essay should be as unique as you are and should be written using your own voice. Include each prompt as the header for each of your two responses. When finished, combine your response to both prompts into one single PDF and upload it to the application. Your total essay upload should be 12 pt, Arial font and no more than two pages, double-spaced, in length.

Prompt 1: Drawing from your previous academic, professional and personal experiences, tell us what attracted you to the program of study you have noted in your application. Be very specific about your past experiences and how they shaped your interests.

Prompt 2: Students often have a wide range of ideas and plans for what they hope to achieve after they receive their graduate degree. Tell us what your 5-year plan is after completing a degree from NYU Tandon.

Resume

A copy of your most recent résumé or curriculum vitae must be uploaded to the online application.

Official Transcripts and Degree Conferral

For admissions review, we will accept copies of your official transcript and proof of undergraduate degree (if completed) uploaded to your application or emailed to us at engineering.gradinfo@nyu.edu. Screenshots or student portal downloads will not be accepted or used in your application review. Please note that we require transcripts from all institutions attended.

If you are offered admission, we will require official final transcripts sent to our office directly from your undergraduate institution to finalize your admission, prior to enrollment in your first semester. To satisfy this requirement, we will accept hard copy/physical transcripts, or electronic transcripts. No scanned copies will be accepted once you've been admitted.

A hard copy or physical transcript is considered official when it is in a sealed, unopened envelope mailed directly from your previous institution to NYU Tandon. An electronic transcript is considered official if it is sent through a digital credential service such as Parchment, Student Clearinghouse, Credential Solutions or a similar, secure third-party platform, or emailed directly from your institution's registrar's office.

English Language Proficiency Testing

All applicants to the NYU Tandon School of Engineering for graduate study must demonstrate excellent English language skills in reading, writing, speaking, and comprehension. Proficiency will be determined by the Test of English as a Foreign Language (TOEFL)* (<http://www.ets.org/toefl/>), International English Language Testing System (IELTS) (<https://ielts.org/take-a-test/>), Duolingo English Test (<https://englishtest.duolingo.com/applicants/>), Cambridge Assessment English (<https://www.cambridgeenglish.org/exams-and-tests/qualifications/general/>), or Pearson PTE Academic (<http://pearsonpte.com/test-takers/test/>) exams. You must submit your English language proficiency scores electronically via the testing agency. The name and date of birth on your test scores must match the name and date of birth on your application, in order for us to receive your scores correctly.

The Office of Graduate Enrollment Management and Admissions reserves the right to request proof of English competency from any applicant. At least one of these exams is required for:

1. All International applicants (those who have or will request a visa) OR
2. Applicants whose first language is not English and/or who have not completed a bachelor's degree in the United States.

The NYU Tandon School of Engineering requires that graduate applicants achieve a minimum TOEFL score of 90 on the internet-based test, an overall band of 7.0 on IELTS, a score of 125 on the Duolingo English

Test, a 65 on the Pearson PTE Academics exam, or a C1 Advanced or C2 Proficiency on the Cambridge Assessment English exam.

The NYU Tandon School of Engineering TOEFL institution code is 2668. Please send electronic IELTS scores to New York University Tandon School of Engineering (<https://www.ielts.org/en-us/usa/ielts-for-test-takers/results/>).

TOEFL, IELTS, and PTE scores are valid for two years. The test must be taken again if your score is older than two years at the time of application submission.

ETS offers at-home testing for the TOEFL. Please visit their website here for more information and to see if you are eligible for this option: TOEFL iBT Home Edition (<https://www.ets.org/toefl/test-takers/ibt/why/options/>)

Applicants may request a waiver of English Language Proficiency Testing for special cases by submitting a waiver request form. If you have only attended a US institution for four years and earned a bachelor's degree, or two years, and earned a master's degree, you will automatically be reviewed for a waiver and do not need to submit a waiver request form. If you have attended both a US school and a school outside of the US, please submit a waiver. This request will be reviewed only after transcripts have been received.

Deadlines to submit your waiver request are below:

All Applicants

Fall: March 1

Spring: November 15

Recommendations

You are required to send two recommendations; we will accept up to three. Recommendations should be provided by professors, employers, supervisors, or others (no friends or relatives) who are able to comment on your academic achievements, research potential and your professional goals. We ask that you input your recommender's information into the online application and they will be prompted to complete a recommendation form electronically. Additionally, there is an option to submit a recommendation letter along with the recommendation form. The letter is optional and not required. Please note that if the optional recommendation letter is submitted, it **MUST** be on professional letterhead and come from the recommender's company or university email address. Recommendation letters received outside of these requirements will be subject to further review and asked to be resubmitted in order to meet our requirements.

Special Notes from the Office of Graduate Admissions

- Due to the volume of applications and related materials received, the Office of Graduate Admissions will only contact you if your application was successfully submitted and is deemed incomplete because of missing required materials. Otherwise, you will hear from us when a decision has been rendered.
- All graduate programs at NYU Tandon School of Engineering are considered STEM Programs based on the government classification (CIP codes) and are available for the STEM OPT extension. The STEM OPT extension is a 24-month period of temporary training that directly relates to an F-1 student's program of study in an approved STEM field. Eligible F-1 students with STEM degrees who finish their program of study and participate in an initial period of regular 12-month post-completion OPT have to option to apply for this extension

for a total OPT period of 36 months. More information on STEM OPT at NYU. (<http://www.nyu.edu/students/student-information-and-resources/student-visa-and-immigration/alumni/extend-your-opt/stem-opt.html>)

Program Requirements

The program requires the completion of 30 credits, comprised of the following:

Course	Title	Credits
Major Requirements		
BTE-GY 6013	Biotechnology and the Pharmaceutical Industry	3
BTE-GY 6023	Biotechnology and Health Care	3
BTE-GY 6033	Biosensors and Biochips	3
BTE-GY 6043	Biocatalysis in Industry	3
MG-GY 7703	ENTREPRENEURSHIP	3
Elective Courses		
Select at least two of the following: ¹		9-15
BT-GY 6053	Introduction to Neuroscience for Biotechnologists	
BT-GY 6063	Immunology: Concepts, Mechanisms and Applications in Biotechnology	
BT-GY 6093	Biomedical Materials & Devices for Human Body Repair	
BT-GY 7013	Special Topics in Biotechnology	
BT-GY 7033	Business Concepts for the Biotechnology Entrepreneur	
BT-GY 7043	Computer-Aided Protein and Drug Design	
BT-GY 9433	PROTEIN ENGINEERING	
BT-GY 9443	Tissue Engineering	
MG-GY 6013	ORGANIZATIONAL BEHAVIOR	
MG-GY 6033	FINANCIAL ANALYSIS FOR TECH MANAGERS	
MG-GY 6073	MARKETING	
MG-GY 6083		
MG-GY 6093		
MG-GY 6103	MANAGEMENT SCIENCE	
MG-GY 6123	Human Resource Management	
MG-GY 6303	OPERATIONS MANAGEMENT	
MG-GY 7953	Global Innovation	
MG-GY 8203	PROJECT MANAGEMENT	
MG-GY 8273	Contracts and Specifications	
MG-GY 8643	NEW PRODUCT DEVELOPMENT	
MG-GY 8653	MANAGING TECHNOLOGICAL CHANGE & INNOVATION	
MG-GY 8673	Technology Strategy	
Projects		
Select up to two of the following: ²		6-0
BTE-GY 950X	Project in Biotechnology and Entrepreneurship I	
BTE-GY 9513	Project in Biotechnology and Entrepreneurship II	
BTE-GY 9523	PROJECT IN BIOTECHNOLOGY AND ENTREPRENEURSHIP III	
Total Credits		30

1

Subject to advisor's approval students can also take an elective course at other Schools of NYU (up to 9 credits). For example, Biotechnology and Entrepreneurship students can select a course at NYU Stern School of Business (<https://www.stern.nyu.edu/>).

2

Projects in Biotechnology and Entrepreneurship count as elective courses.

Sample Plan of Study

Course	Title	Credits
1st Semester/Term		
BT-GY 6023	Biotechnology and Health Care	3
BT-GY 6033	Biosensors and Biochips	3
MG-GY 7703	ENTREPRENEURSHIP	3
Credits		9
2nd Semester/Term		
BT-GY 6013	Biotechnology and the Pharmaceutical Industry	3
BT-GY 6043	Biocatalysis in Industry	3
MG-GY Elective		3
Credits		9
3rd Semester/Term		
MG-GY Elective		3
MG-GY Elective		3
BT-GY Elective		3
Credits		9
4th Semester/Term		
MG-GY or BT-GY Elective		3
Credits		3
Total Credits		30

Learning Outcomes

Upon successful completion of the program, graduates will:

1. Demonstrate fundamental knowledge of main Biotechnology subject areas, including the underpinning science.
2. Have developed a clear understanding of how the main Biotech concepts are applied in practice.
3. Have acquired skills and experience necessary to successfully enter the workforce.

Policies

GPA and Grade Policy

To meet graduation requirements, students must attain an overall GPA of 3.0 (average of a B) in all their courses and at least a B- in each of the required courses.

NYU Policies

University-wide policies can be found on the New York University Policy pages (<https://bulletins.nyu.edu/nyu/policies/>).

Tandon Policies

Additional academic policies can be found on the Tandon academic policy page (<https://bulletins.nyu.edu/graduate/engineering/academic-policies/>).