

MECHANICAL ENGINEERING (PHD)

NYSED: 08827 HEGIS: 0910.00 CIP: 14.1901

Program Description

Mechanical engineers create the physical systems and devices that define modern society – everything from automobiles to air conditioning, robotic parts to power plants, people movers to artificial limbs, and rocket engines to satellites. At the School of Engineering, we groom our students to become the inventors and innovators of tomorrow. Our PhD in Mechanical Engineering program offers a balanced curriculum that emphasizes the principles behind these designs and approaches. To apply these principles in the field, we make computational and research experience an integral component of your studies.

We also offer students the freedom to choose from 5 distinct areas of specialization:

1. Aerospace Engineering
2. Controls and Dynamic Systems
3. Fluid Dynamics and Thermal Systems
4. Materials Engineering
5. Mechanics and Structural Systems

Admissions

Admission to graduate programs in the Tandon School of Engineering requires the following minimum components:

- Résumé/CV
- Statement of Purpose
- Letters of Recommendation
- Transcripts
- Proficiency in English

The NYU Tandon Graduate Admissions website (<https://engineering.nyu.edu/admissions/graduate/apply/requirements/>) has additional information on school-wide admission.

Some programs may require additional components for admissions.

See the program's How to Apply (<https://engineering.nyu.edu/admissions/graduate/how-apply/>) for department-specific admission requirements and instructions.

Requirements

Admission to this program requires an MS in Mechanical or Aerospace Engineering or other closely related engineering field or applied sciences. Generally, you must also be able to present a GPA of 3.5 or better in your MS work. In cases where it is unclear that the required MS specialization has been satisfied, the degree requirements for the Mechanical Engineering, MS at the School of Engineering will define the necessary reparation. This same criterion applies for degrees received in other engineering disciplines.

Those with a BS in Mechanical or Aerospace Engineering and a GPA of 3.5 or better may apply directly to the program.

Program Requirements

The program requires the completion of 75 credits, comprised of the following:

Course	Title	Credits
Major Requirements		
Approved Graduate Courses ¹		54
Dissertation Courses		21
Total Credits		75

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Up to 30 credits of Approved Graduate Courses may be transferred from a relevant MS degree.

Sample Plan of Study

Course	Title	Credits
1st Semester/Term		
Approved Graduate Course		3
Approved Graduate Course		3
Approved Graduate Course		3
Credits		9
2nd Semester/Term		
RE-GY 9990	PHD QUALIFYING EXAM	0
Approved Graduate Course		3
Approved Graduate Course		3
Approved Graduate Course		3
Credits		9
3rd Semester/Term		
Approved Graduate Course		3
Approved Graduate Course		3
Approved Graduate Course		3
Credits		9
4th Semester/Term		
Approved Graduate Course		3
Approved Graduate Course		3
Approved Graduate Course		3
Credits		9
5th Semester/Term		
Approved Graduate Course		3
Approved Graduate Course		3
Approved Graduate Course		3
Credits		9
6th Semester/Term		
Approved Graduate Course		3
Approved Graduate Course		3
Approved Graduate Course		3
Credits		9
7th Semester/Term		
ME-GY 999X	PHD DISSERTATION IN MECHANICAL ENGINEERING	3
Credits		3
8th Semester/Term		
ME-GY 999X	PHD DISSERTATION IN MECHANICAL ENGINEERING	3
Credits		3
9th Semester/Term		
ME-GY 999X	PHD DISSERTATION IN MECHANICAL ENGINEERING	3
Credits		3
10th Semester/Term		
ME-GY 999X	PHD DISSERTATION IN MECHANICAL ENGINEERING	3
Credits		3

11th Semester/Term		
ME-GY 999X	PHD DISSERTATION IN MECHANICAL ENGINEERING	3
Credits		3
12th Semester/Term		
ME-GY 999X	PHD DISSERTATION IN MECHANICAL ENGINEERING	6
Credits		6
Total Credits		75

Learning Outcomes

Upon successful completion of the program, graduates will:

1. Be provided with computational and research experience in Mechanical Engineering.
2. Be provided with knowledge to be inventors and innovators in physical systems and devices for the convenience of modern living.
3. Be trained to advance the state of the art in a chosen specialty subfield of Mechanical Engineering.

Policies

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/>).