MECHANICAL ENGINEERING (MENG)

Duffield College of Engineering

Program Website (https://www.duffield.cornell.edu/mae/meng/)

CIP: 14.1901 | **HEGIS:** 0910.00 | **NYSED:** 13330

Program Description

The Master of Engineering (M.Eng.) Mechanical Engineering degree program offers two options for study, a traditional one-year (two semester) on-campus program and a distance learning (DL) part-time program that can be completed on-line in two to three years. The M.Eng. program is for those who wish to develop a higher level of competence in mechanical engineering science, current technology, and/or engineering design. The program is geared for students who wish to work in industry after graduation, entering at a higher and more focused level; and engineering professionals that wish to enhance their technical skills and accelerate career advancement – or change career tracks.

The program is designed to be flexible so candidates may concentrate on a variety or combination of focus areas. These include biomechanical engineering, energy systems, design, robotics, spacecraft engineering, engineered materials, simulation and analysis and controls.

The program's flexibility allows students to build an individualized program of courses that matches their focus area. Students are required to complete 30 credits of work at the graduate level, consisting of technical courses, engineering tool courses and/or professional development courses.

Each student's program includes 4 to 8 credits of a major project. These projects have applications to their mechanical engineering focus areas. The projects may arise from individual faculty, student interests or from collaboration with industry. All projects are done under the close supervision of a faculty member or industrial partner.

Program Information

- Program Mode of Delivery: In Person; Distance Education
- Program Location: Ithaca, NY
- Minimum Credits for Degree: 30

Program Requirements

On Campus and Distance Learning

Code	Title	Hours
Required Courses		
Mechanical Engineering or related field courses		
At least 12 credits of MAE 5000 to MAE 9999 [1]		12
MAE 6900	Special Investigations in Mechanical and Aerospace Engineering [2]	4-8
Additional technical or engineering tool and/or professional development courses		10-14
Total Hours (minimum required)		**30**

[1] The following courses won't count towards the 12 credits: MAE 5459, MAE 5469, MAE 5949, MAE 6900, MAE 6949, MAE 6998, MAE 7999.

[2] With advisor permission other Engineering project courses may be substituted, such as: SYSEN 5900, BME 5910, BME 5920, ECE 5995, etc.

University Graduation Requirements

Requirements for All Students

In order to receive a Cornell degree, a student must satisfy academic and non-academic requirements.

Academic Requirements

A student's college determines degree requirements such as residency, number of credits, distribution of credits, and grade averages. It is the student's responsibility to be aware of the specific major, degree, distribution, college, and graduation requirements for completing their chosen program of study. See the individual requirements listed by each college or school or contact the college registrar's office (https://registrar.cornell.edu/service-resources/college-registrar-directory) for more information.

Non-academic Requirements

Conduct Matters. Students must satisfy any outstanding sanctions, penalties or remedies imposed or agreed to under the Student Code of Conduct (Code) or Policy 6.4. Where a formal complaint under the Code or Policy 6.4 is pending, the University will withhold awarding a degree otherwise earned until the adjudication process set forth in those procedures is complete, including the satisfaction of any sanctions, penalties or remedies imposed.

Financial Obligations. Outstanding financial obligations will not impact the awarding of a degree otherwise earned or a student's ability to access their official transcript. However, the University may withhold issuing a diploma until any outstanding financial obligations owing to the University are satisfied.

Graduation Requirements for Master of Engineering Degree (M.Eng.) Programs

Requirements

The following are general requirements for graduation that apply to all Master of Engineering degrees offered on the Ithaca campus. The individual program pages provide additional information about discipline-specific requirements.

Credits and Residency Units

- Satisfactory completion of 30 technical credits, of which:
  - At least 21 credits must be earned at Cornell. (Some M.Eng. programs allow up to 9 transfer credits of letter-graded coursework completed outside of Cornell to be applied to the M.Eng. degree.)
  - At least 12 credit hours must be in coursework from the home M.Eng. program (as determined by the program).
  - A maximum of two credit hours graded on an S/U basis may be included.
- The credit hours of any course in which a student receives a grade below C- will not count toward the Master of Engineering degree.
- Students must maintain a course load of at least 12 credit-bearing hours[1] each semester.
- Students may not enroll in more than 20 credit-bearing hours per semester.

- Students must complete two full-time residency units[1] (semesters) as registered M.Eng. students. Winter and summer sessions do not count as residency units.

[1] Course load and residency unit exceptions apply for Distance Learning program students, employee degree program students, and Industrial Partnership Program students. The residency unit requirement is one full-time registered semester for Early Admit M.Eng. students and certain Cornell MPS/MS/PhD student transfers.

Courses

- Only program-approved courses at the 5000 level and above may count toward the M.Eng. degree.
- Courses covering subject matter previously taken at Cornell may not be repeated for credit.
- Satisfactory completion of an engineering design project bearing 3 or more credit hours and including a formal written report.

Other Requirements

- A grade-point average of 2.50 or above is required across all Cornell courses which count for credit towards the M.Eng. degree.
- Students must complete all degree requirements within four calendar years of their first enrollment in the M.Eng. program (six years for distance learning students), inclusive of any leaves of absence.
- Students must complete the M.Eng. Exit Survey prior to graduation.

Learning Outcomes

- Mastery and application of core disciplinary knowledge
- Problem formulation and organization and planning of the solution process
- Collaborative problem solving and issue resolution
- Communication of knowledge, ideas and decision justification
- Self-directed learning and professional development

Admissions

Application Requirements and Deadlines

Application Deadlines

- On-campus (Ithaca) Fall, February 1; Spring, October 1
- Distance Learning Fall, March 1; Spring, November 2
- Cornell Undergraduate Early Admit: Fall, February 1; Spring, October 1
- For more information, please review the Early Admit webpage (https://www.duffield.cornell.edu/meng/admissions-meng-students/early-admissions-for-cornell-students/)

Requirements Summary

- An engineering or STEM degree in a related area
- Three letters of recommendation
- Academic Statement of Purpose
- Personal Statement
- Resume or CV
- English Language Proficiency Requirement (for international applicants)
- For more information, please see the M.Eng. Application Guide (https://www.duffield.cornell.edu/meng/admissions-meng-students/application-guide/)

Admissions Contact Information

Email: maemeng@cornell.edu
Phone: 607-255-0990
Website: https://www.duffield.cornell.edu/mae/meng/