How to Apply

Applications to the Master of Engineering program for the 2015–2016 academic year will be accepted through April 1, 2015.

Apply online at http://m.eng.cooper.edu

Please submit the following supplemental information no later than April 1, 2015 to the Office of Admissions. The Cooper Union, 30 Cooper Square, New York, NY 10003. Materials may also be sent to admissions@cooper.edu. Please reference in the subject line of your email “Graduate Engineering Supplemental Information.”

APPLICATION REQUIREMENTS:

• B.E. or B.S. in an engineering discipline;
• Official copies of school transcripts. This includes secondary (high school), college and university work;
• GRE scores (optional);
• TOEFL scores (if bachelor's degree was taught in a language other than English);
• Two letters of recommendation;
• Résumé (see below for detailed information);
• In a separate document, please submit a résumé, listing any professional licensure or certification along with a statement indicating what areas within engineering you seek to study.

Be sure to outline any relevant academic honors or awards, teaching or work experiences, internships, publications, research, projects, websites, patents, or other evidence of creative scholarship.

GRADUATION REQUIREMENTS

The degree is comprised of 30 total credits beyond the baccalaureate degree. Students may complete the requirements in one of two ways: either the thesis option that comprises of 24 credits in courses and 6 representing the thesis or the recently introduced non-thesis option which is 30 credits of course work.

THE COOPER UNION FOR THE ADVANCEMENT OF SCIENCE AND ART

Master of Engineering Program
ALBERT NERKEN SCHOOL OF ENGINEERING

Advance your career by enrolling in an intensive Master of Engineering (M.Eng.) program in downtown Manhattan, an epicenter for innovation, technology and design. The Albert Nerken School of Engineering, part of The Cooper Union for the Advancement of Science and Art, offers an M.Eng. degree that will enable you to pursue highly technical and managerial positions or a Ph.D. at a top research institution. Graduates of Cooper Union include a Nobel Prize Winner in Physics and 33 Fulbright scholars.

HIGHLY SELECTIVE, RIGOROUS, PRACTICAL

The Cooper Union, established in 1859, is a small highly selective university in Manhattan. It is among the nation’s oldest and most distinguished institutions for higher education known nationally for its rigorous fundamentals, research grounding and project-oriented curriculum.

TRANSLATING THINKING INTO MAKING

Translating thinking into making is an ethos echoed across the creative culture of Cooper's engineers, artists and architects. High-performing students admitted to any of the School's four departments—civil, chemical, electrical and mechanical—benefit from continuous access to leaders in both industry and academia in an intimate learning environment. All students are encouraged to consider such factors as sustainability, economics and teamwork through their coursework.

NYC’S INNOVATION COMMUNITY

New York City’s economy and its academic and business cultures are being transformed by innovation in the technology sector. The Cooper Union is a hub of innovation providing students the opportunity to immerse themselves in Silicon Alley, Manhattan’s East Village startup community. Students participate in accelerators such as the six-week intensive Invention Factory and the 10-week Global Accelerator programs. All students enjoy innovation courses, the possibility for student-owned intellectual property, lectures by successful inventors and entrepreneurs, and rocket pitches at which students present business plans and solicit feedback on prototype inventions from a network of businesses that are far less accessible to those outside New York City.

DIVERSE OPPORTUNITIES

Our graduates have gone on to complete doctoral degrees at top-tier institutions like MIT, Stanford, Harvard, Columbia, Yale and Georgia Tech. and medical degrees at NYU School of Medicine, Icahn School of Medicine. They are also actively recruited by Fortune 500 companies and start-ups alike for their consistent ability to solve societal issues through responsible technological innovation.

Admission into the M.Eng. program is highly competitive and based primarily on superior undergraduate performance, industry/research experience, strong evidence of independent, creative thought, and extracurricular activities using technology to solve problems facing contemporary society.
Graduate students in the Department of Chemical Engineering focus on courses that advance fundamental principles such as transport phenomena, thermodynamics and reaction engineering. Students develop their creative abilities and are encouraged to explore many related fields, including biomedical, energy and environmental engineering, and sustainability.

In addition to studying advanced courses in chemistry and chemical engineering, as well as applications such as nanotechnology, equipment design and pharmaceutical engineering, graduate students carry out research under the guidance of full-time faculty members from either the chemistry or chemical engineering department.

**SPECIALIZATION AREAS:** process simulation, sustainability, nanomaterials, particle technology and fluidization, pharmaceutical engineering, pollution prevention and mitigation.

**EMPLOYERS OF OUR GRADUATES:** Our graduates work for a wide range of employers including Exxon/Mobil, Infinium, Merck, Johnson & Johnson, Philips Petroleum, PepsiCo, Pall, and Consolidated Edison. Others earn doctoral degrees from leading universities across the country.

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Graduate students in the Department of Electrical Engineering work with practicing professionals, faculty and peers on a variety of cutting-edge problems. Students are provided with tools to address engineering problems, based on a strong theoretical foundation and scientific computation.

Students work with faculty exploring a diverse array of subjects, including audio and image processing, electronics design, machine learning and artificial intelligence, parallel and distributed processing, RF engineering and wireless communications, and sustainable engineering.

**SPECIALIZATION AREAS:** electronic systems and materials, signal processing and communications, and computer engineering

**EMPLOYERS OF OUR GRADUATES:** Alcatel-Lucent, Bloomberg LP, Goldman Sachs, Google, The Hackerati, ITT Exelis, LGS Innovations, Maxentric Technologies, Mini-Circuits, Nvidia, Spotify, Southwest Research Institute, SRI International

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Graduate students in the Department of Mechanical Engineering explore design innovations, robotics, mechatronics, energy and sustainability, nanotechnology, dynamic systems, biomedical engineering and cutting-edge computational methods. Courses balance analytical rigor and creative design, thereby preparing graduates for a variety of careers.

Graduates are valued for their strong project-based design skills and analytical abilities. They have successful careers as entrepreneurs and in the aerospace, automotive, biomedical, energy and construction industries. They often pursue doctoral studies in a range of mechanical engineering fields.

**SPECIALIZATION AND RESEARCH AREAS:** computer-aided design and engineering, computational fluid dynamics, combustion, refrigeration, robotics, biomedical systems, respiratory biomechanics, automotive systems, mechatronics, thermoelectric power generation, building sustainability, vibrations and acoustics

**EMPLOYERS OF OUR GRADUATES:** Arup, Boeing, Bloomberg LP, Consolidated Edison, Credit Suisse, Exxon, General Dynamics, General Motors, Honda, IBM, Merck, NASA, Raytheon, Southwest Research Institute, SpaceX, Strayer, United States Patent and Trademark Office

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Graduate students in the Department of Civil Engineering become equipped with the theoretical and practical knowledge needed to solve many problems facing both our built and natural environments. Coursework grounded in the principles of mathematics, structural mechanics and computer applications prepares students for careers in urban planning, structural engineering, construction management and infrastructure rehabilitation.

To augment the major curriculum, graduate students have the opportunity to declare minors varying from computer engineering to civil engineering management. Students and faculty often collaborate on projects related to sustainability, alternative energy sources and the mitigation of damage caused by natural and man-made disasters.

**SPECIALIZATION AREAS:** structural and geotechnical, water resources and environmental engineering.

**EMPLOYERS OF OUR GRADUATES:** Thornton Tomasetti, Arup, Mueser Rutledge, Weidlinger Associates, Skanska, Gilbane, Port Authority of New York & New Jersey, NYC Department of Design and Construction