



**WHO WE ARE | WHAT WE DO**

**ARCHITECTURE.**

**ART.**

**ENGINEERING.**

**THE COOPER UNION**

WHO  
WE  
ARE

WHAT  
WE  
DO



# **Focus. Passion.**

# **Discipline. Excellence.**

For generations, aspiring architects, artists and engineers have gravitated to New York City. And for good reason: all three disciplines thrive on the kind of energy and challenges only a city as complex and stimulating as New York can offer.

The city demonstrates in tangible ways how architecture, art and engineering can dramatically influence an environment and its inhabitants. Inside the classroom and out, Cooper students engage in debates that are critical to our time: the potential of new technology; the role of public spaces in civic life; the possible responses to environmental changes; and the relationship between theory and aesthetic practice. All of these are central questions that, in addition to course work in their areas of study, prepare students for professional practice.

Our Schools of Architecture, Art and Engineering have achieved international prominence. In a hands-on, collaborative environment, our faculty and students propose ways to reimagine our world. For over 150 years, New York City has inspired and thrived on the contributions of The Cooper Union community.

## **Scholarship.**

All admitted students receive a half-tuition scholarship valued at approximately \$20,000 per school year. Admissions decisions are made entirely on merit. Additional aid may be available based on financial need.

# B E Y O N D THE DEGREE

**Learn to be a professional—and a leader.**

**The Cooper Union provides  
every enrolled student  
with a foundation in the  
liberal arts to enhance  
their professional degrees.**

The Faculty of Humanities and Social Sciences (HSS) offers seminars that focus on critical reading, historical perspective, social analysis and global questions. An emphasis on written work and oral presentations builds leadership skills for a profession – and for a lifetime.

The HSS core—a four-semester sequence of courses in the humanities and social sciences—is a central component of a Cooper education, providing an opportunity for students from the three different schools to study and learn side by side. After completing the core, students select from a broad range of electives, including ethics, microeconomics, world religion, the psychology of visual perception, Darwin, Shakespeare, contemporary fiction, public policy and art history.

## **Academic Resources:**

- The Center for Writing helps students acquire the tools they need to create polished analytical and critical writing. Students may work on any aspect of reading, writing or speaking for course work, grants and fellowships, graduate school applications and job applications. Students may sign up for single or ongoing sessions.
- The Cooper Union Library reflects and supports the course of study in HSS and the three schools. The physical collection is especially strong in the history of art and architecture, while also offering extensive electronic resources of recent scholarly books and articles as well as periodical indexes across a variety of disciplines. The Cooper Union Library is a member of a consortium of academic libraries including NYU and The New School, offering an encyclopedic range of materials to the Cooper community.

# The city is our campus.

**With every cultural and professional opportunity at their fingertips,  
Cooper students are classroom smart and city-savvy.**

While a Cooper education is distinguished by a rigorous grounding in the fundamentals of each discipline, it is undeniably molded by the creative culture of the city. The relationship between Cooper students and New York begins in our own neighborhood, the East Village. Here, students find a wealth of cultural resources as well as opportunities to engage as observers, volunteers and emerging professionals.

Likewise, Cooper Union's rich heritage of achievement has helped define New York City as a crucible of invention, creativity, daring and resilience. Cooper Union graduates have imprinted their genius on New York City's bridges and tunnels, skyline and streetscapes. Their paintings, sculptures, books, films, plays and performances have enriched the culture of the city and beyond.

Long the home of artists and architects, the neighborhood is becoming a hub of high-tech innovation as well, recently dubbed "Silicon Alley." The Village is home to a growing number of media and information firms—especially internet-based enterprises—that have strong potential for growth in the years ahead. Adjacent to our campus are the new headquarters for IBM's Watson cognitive computing project and for Facebook. Businesses thriving in the area include architecture, engineering and design firms; advertising, marketing and market research firms; and law, management consulting and computer service firms. A growing arts and entertainment sector includes independent film and video production.

Cooper students are encouraged to explore New York's rich professional opportunities through the Professional Internship Program. Using the Center for Career Development, students find internships that are specifically tailored to enhance their development and provide a solid foundation for achieving long-term career goals. Our students also have access to a distinguished network of alumni and faculty as they seek employment and graduate study.

Leadership opportunities are available through over 125 on-campus organizations that include academic and religious clubs, performance groups, Greek life, professional and honor societies, recreational sports, ethnic and philanthropic organizations and activities committees. Student-athletes participate in men's and women's varsity soccer, basketball, tennis, volleyball and cross country.





#### **Application Requirements:**

### **The Irwin S. Chanin School of Architecture**

- Official high school transcript or GED certificate
- Official college transcripts, if applicable
- Official SAT I or ACT scores
- Recommendation letters (strongly encouraged)
- Completed studio test (will be emailed in January with detailed instructions)
- Transfer students must submit portfolio material.

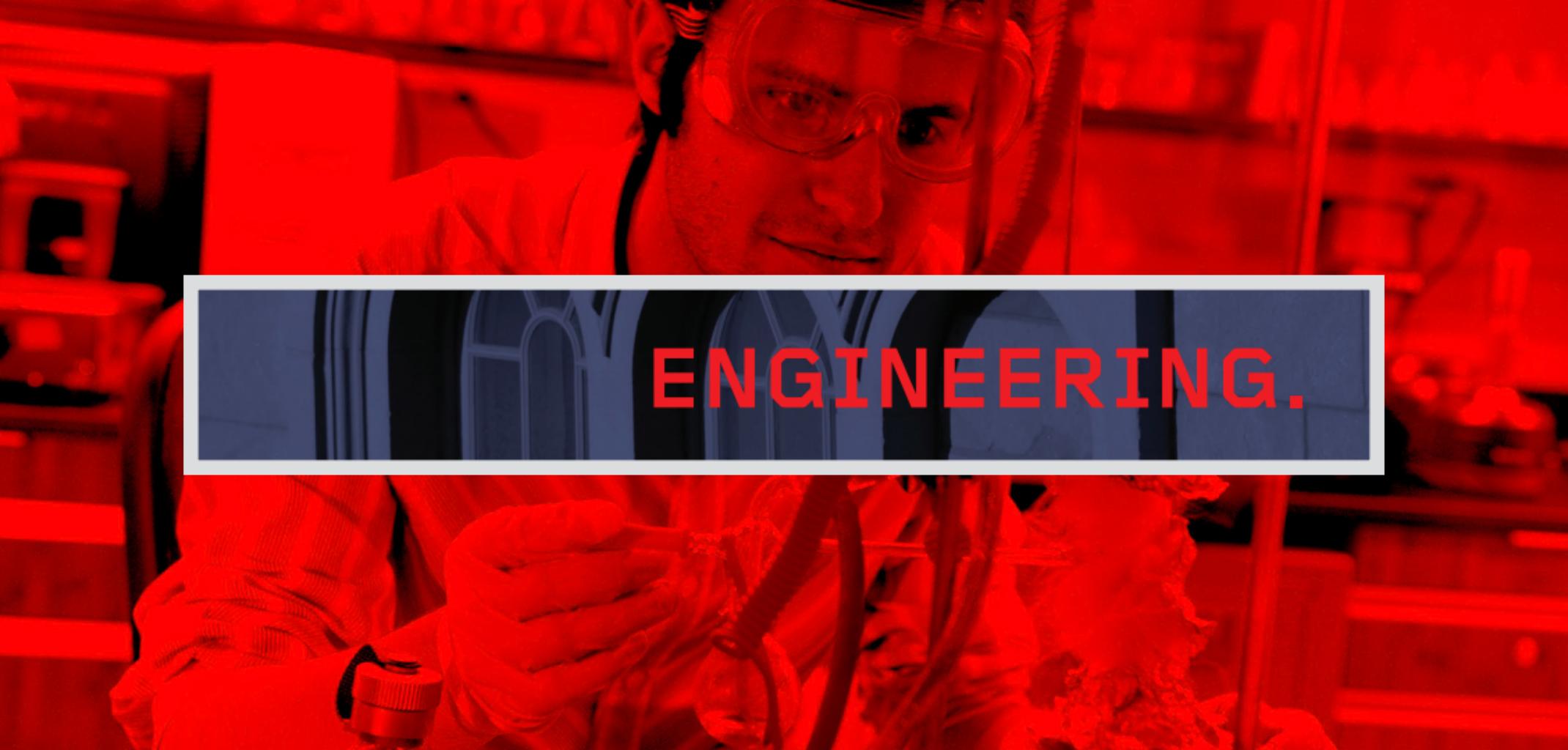
Note: First-year applicants should not send additional portfolio material.

### **School of Art**

- Official high school transcript or GED certificate
- Official college transcripts, if applicable
- Official SAT I or ACT scores
- Recommendation letter (1)
- Completed home test including portfolio material (will be emailed in December for Early Decision and in January for Regular Decision)

### **Albert Nerken School of Engineering**

- Official high school transcript or GED certificate
- Official college transcripts, if applicable
- Official SAT I or ACT scores
- Two SAT II scores: one in Math (either 1 or 2) and one in either Physics or Chemistry
- Recommendation letters (2-3)
- Completed Engineering Part II (submitted as a Writing Supplement on your Common Application)



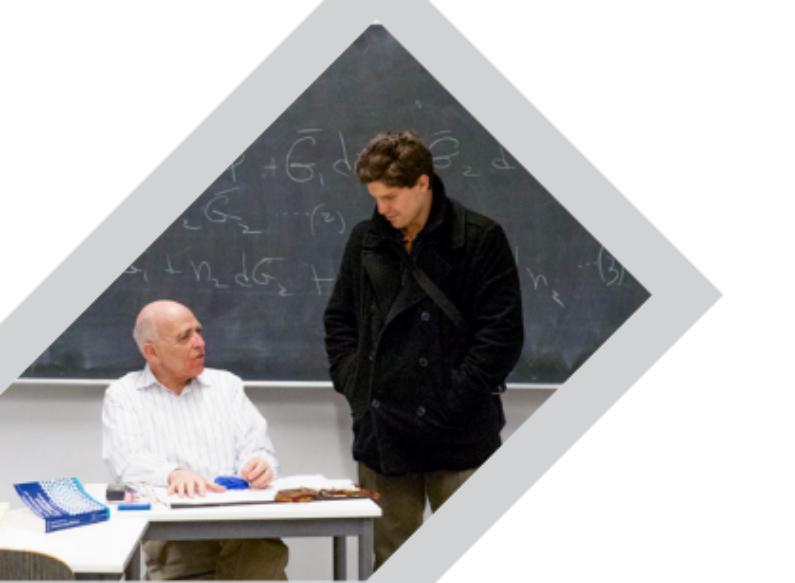
**ENGINEERING.**

# THE ALBERT NERKEN SCHOOL OF **ENGINEERING**



**RIGOROUS & INNOVATIVE**

THE COOPER UNION OFFERS BACHELOR OF ENGINEERING DEGREES IN CHEMICAL, CIVIL, ELECTRICAL AND MECHANICAL ENGINEERING IN ADDITION TO A BACHELOR OF SCIENCE IN GENERAL ENGINEERING. A COOPER ENGINEERING EDUCATION PROVIDES RIGOROUS INSTRUCTION AND DRAWS UPON THE ABUNDANT EXPERIENCE OF THE SCHOOL'S FACULTY, WHO IS WELL KNOWN FOR ITS DEDICATION TO TEACHING. IN ADDITION, THE COOPER UNION OFFERS COUNTLESS OPPORTUNITIES FOR STUDENTS TO APPLY THEIR CLASSROOM LEARNING TO INNOVATIVE RESEARCH PROJECTS.



## 8.5 to 1 **Student-to-Faculty Ratio**

**The curriculum of the Albert Nerken School of Engineering is built on three basic values: technological and scientific competence; balance between theory and practice; and consideration of the societal aspects of engineering.**

With New York City as its campus, the School of Engineering provides an analytic, demanding education. Students from each discipline study together for all four years. This cohort pedagogy encourages cooperative learning where students understand that formulating the right questions is as critical as knowing how to solve them.

The Cooper Union encourages competitive collaboration—students work cooperatively while inspiring each other to excel. As soon as students arrive at Cooper, they are challenged to apply technical knowledge to real-world engineering

and design questions. In addition to core courses in chemistry, mathematics, physics, computer science and the humanities, students participate in many individual and team projects. They use state-of-the-art laboratories, take advanced courses within their particular field, and benefit from close interaction with faculty and alumni who provide mentorship and collaboration on research projects. Emphasized throughout a Cooper education is the importance of civic engagement and responsibility because of the remarkable impact engineering has on the lives of everyday people.

# Preparing for the Profession

**During the first two years of study, students may participate in the Engineering Professional Development Program, which encourages them to think about their study as it relates to civic and ethical questions while also learning important non-technical skills.**

For these classes, students hone their writing skills, give presentations and learn about group dynamics, all while thinking about the responsibility needed to use engineering as a force that affects communities around the world.

Cooper also offers a variety of hands-on opportunities for students to build professional skills. At HackCooper, students have only 24 hours to collaborate to design and build a software or hardware project. For the Formula SAE project, students design a racecar that eventually competes against other schools' cars around the country, while the Bridge Building project lets future engineers test structural theories learned in the classroom.





# Civically-Minded Engineers

**Students may conduct original research with Cooper Union faculty through several research institutes.**

At the school's Maurice Kanbar Center for Biomedical Engineering, for instance, faculty and students work with area hospitals to conduct groundbreaking biomedical research in such fields as orthopedic biomechanics, medical imaging, medical devices and injury rehabilitation.

The National Academy of Engineering created its "Grand Challenges" initiative to

address problems that affect the health and security of citizens and the environment. The Cooper Union is one of 122 schools across the country that pledged to graduate a minimum of 20 students per year who are being specially prepared to lead the way in solving large-scale problems such as accessing clean water, engineering better medicines, securing cyberspace and enhancing virtual reality.

# Interdisciplinary Problem-Solving

In addition to courses in chemical, civil, electrical and mechanical engineering, The Cooper Union offers interdisciplinary study that draws upon the expertise from each of the four degree-granting departments.



The first of these, Engineering Design and Problem Solving (EID 101), requires students to work on cutting-edge, exploratory design projects in interdisciplinary groups of about 20. Each project has an industrial sponsor/partner who provides consultation and support to students and faculty.

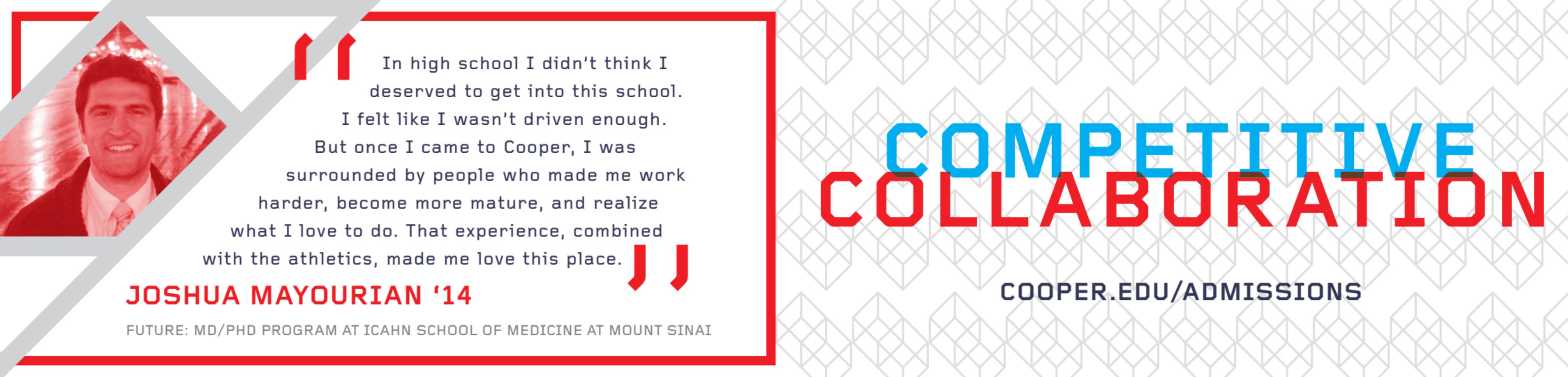
Professional competencies, teamwork, human values and social concerns are stressed in the course. In past years, students in EID 101 have designed refugee shelters in Somalia and Kenya, proposed solutions to childhood obesity and invented modular architectural components.



## Silicon Alley

**Cooper's neighborhood, the East Village in lower Manhattan, has recently been dubbed "Silicon Alley" because of its dozens of internet businesses including the Huffington Post, Facebook and AOL.**

In 2014, IBM's Watson Group established its global headquarters across the street from The Cooper Union. Watson, an artificially intelligent computer system that beat the best players at Jeopardy!<sup>TM</sup>, was central to a summer program at Cooper sponsored by the School of Engineering. Students used a data set from Watson to design their own start-up during a 6-week course.



In high school I didn't think I deserved to get into this school. I felt like I wasn't driven enough. But once I came to Cooper, I was surrounded by people who made me work harder, become more mature, and realize what I love to do. That experience, combined with the athletics, made me love this place.

J J

**JOSHUA MAYOURIAN '14**

FUTURE: MD/PHD PROGRAM AT ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI

# COMPETITIVE COLLABORATION

[COOPER.EDU/ADMISSIONS](http://COOPER.EDU/ADMISSIONS)