

UChicago Careers in Science, Technology, Engineering, and Math

UChicago Careers in Science, Technology, Engineering, and Mathematics (UCISTEM)

UCISTEM helps students explore, prepare for, and obtain careers or professional school placement in these fields. Students of any major may join UCISTEM, where they have the opportunity to participate in an elective workshop curriculum, in addition to experiential learning options such as research assistantships, internships, externships, and innovation competitions. Opportunities for mentorship, alumni networking, and one-on-one advising are readily available as well. UCISTEM students have gone on to successful careers in a variety of fields, including alternative energy, biotechnology, entrepreneurship, and national laboratory research.

Advising

UCISTEM offers students the opportunity to meet with the Program Director as many times as needed to discuss potential career and academic paths and to ensure students are obtaining skill sets and experiences to successfully pursue those paths. Frequent advising topics include resume and application materials reviews, finding research opportunities on campus, and career exploration.

Workshops and Expert Speakers

UCISTEM brings in alumni and employer partners to expose students to the breadth of opportunities available in STEM fields and to provide a forum for students to explore career paths, dive into the latest industry trends, and meet potential mentors. Workshop topics have included neuroscience, digital innovation, molecular engineering, cyber security, science outreach to the public, 3D printing, and molecular gastronomy.

Undergraduate Research Symposium and Lecture

The Research Symposium provides students the opportunity to showcase their research endeavors to the University community and promotes interdisciplinary, intellectual discourse among a variety of students, staff, and faculty. The Phoenix Lecture is presented by a faculty member who is leading the university's latest and most advanced discoveries in STEM fields.

"The Core allows you to be more of an interdisciplinary thinker. Particularly in today's world, where everything is so globally connected, I think that's a real benefit."

UChicago Degree AB'03,
Physics
Home Madison, WI
Occupation
Materials Scientist,
PIKE Technologies

JULIE CAPODAGLI

"We're really trying to do something that transcends traditional engineering disciplines. You might call it a liberal arts approach to engineering education. We will introduce students to a new way of thinking about technology innovation."

—Matthew Tirrell, Pritzker Director,
Institute for Molecular Engineering

UChicago students have the opportunity to engage in engineering through internships, research opportunities, and academic coursework with leading scholars. The University's Institute for Molecular Engineering is pioneering new undergraduate opportunities in molecular engineering, an emerging field that uses the advances of physics, biology, chemistry, and computation to develop new technologies that can address some of society's most challenging problems. Students will be trained in a new approach to engineering research and education that researchers anticipate will be applied to clinical medicine, energy supply, clean water production, and quantum computing. As the Institute grows, the faculty plans to develop new coursework, giving students unparalleled access to new developments and discoveries within engineering.

"Molecular engineering interests me because it allows me to construct my own solution to the various issues that plague the medical field and everyday life as a whole."

—Amanuel Kibrom, AB '16

The Institute partners with Argonne National Laboratory to bring leading scientists and engineers together, offer access to world-class facilities, and provide extensive research and internship opportunities for undergraduates. The Institute's additional partnerships with research institutions, corporate entities, and the global engineering community will provide undergraduates a truly dynamic setting at the forefront of engineering research and education. There is a need for a new breed of engineer, and UChicago students will be uniquely suited to meet that need.

ENGINEERING AT UCHICAGO



Career
Advancement

Office of Career Advancement
Ida Noyes Hall, 1212 E. 59th Street, Chicago, IL 60637
773.702.7040
careeradvancement.uchicago.edu

UCISTEM Engineering Graduate School Fair

Each year, UCISTEM hosts the annual STEM Career Fair to connect students with top engineering programs in the Midwest. The fair provides resources and networking opportunities to undergraduates who would like to learn more about the different engineering programs, the application process, timeline, and requirements for success.

Students from all majors, including physics, chemistry, computer science, biological sciences, environmental sciences, mathematics, and economics attend each year to explore graduate school programs and opportunities in engineering.

College New Venture Challenge

By participating in the College New Venture Challenge, teams of students have the opportunity to propose a for-profit or nonprofit enterprise that would provide an innovative service to the community—whether that's the University, the nation, or the world. The winning team receives \$10,000 to start their enterprise.

Research and Internship Opportunities

The Jeff Metcalf Internship Program provides paid, substantive internships exclusively to UChicago students. Metcalf interns explore career fields and gain meaningful work experience, increasing their marketability and value to future employers. The Metcalf internship program offers more than 1,000 opportunities each year and is continuing to build the number of internships abroad. Students interested in STEM fields have worked for organizations such as:

- Argonne National Laboratory
- BioEnterprise
- Marine Biological Lab
- Google
- Institute for Molecular Engineering at the University of Chicago
- Kew Botanical Gardens
- Lincoln Park Zoo
- Takeda Pharmaceuticals

Exploration

Treks give UCISTEM students the opportunity to travel to STEM hubs in the United States for two to three day career exploration trips. During a trek, students visit STEM organizations, meet alumni in these fields, explore internship and full-time opportunities, experience different work cultures, and grow their professional network. Several treks are available to students throughout the academic year. Previous trek destinations and themes include:

- Boston Biotech Trek
- Chicagoland Treks to Argonne National Library, Fermilab, and Google
- Cleveland Biomedical Innovation Ecosystem Trek
- Denver/Boulder Earth and Space High-Tech Trek
- Houston Energy Trek
- Madison Healthcare and Diagnostics Trek
- San Francisco Technology Trek
- Woods Hole Marine Biology Trek

Alumni Board of Governors Externship Program

Through the Alumni Board of Governors Externship Program, undergraduate students can spend two to three days of their spring break shadowing alumni at their place of work. Recent STEM job shadowing sites have included Google, Exelon, First Solar, and the National Science Foundation.

Alumni Leaders in science, technology, engineering and math

- Casey Cowell, AB'65, cofounder of USRobotics
- Edwin Hubble, SB 1910, PhD 1917, astronomer who found first evidence for the big bang theory
- Karen Katen, AB'70, MBA'74, senior advisor to Essex Woodlands Health Ventures; former vice chairman of Pfizer, Inc.; former president of Pfizer Human Health; University trustee
- Deborah Mack, AB'76, chief scientific consultant for Terranova Pictures; project director for the Africa exhibition at Chicago's Field Museum
- Lynn Margulis, AB'57, National Medal of Science winner, 2000
- Irwin Rose, SB'48, PhD'52, Nobel laureate in chemistry, 2004, for the discovery of ubiquitin-mediated protein degradation
- Janet Rowley, LAB'42, PhD'44, SB'46, MD'48, discovered the link between genetics and cancer; National Medal of Science recipient, 1998; Presidential Medal of Freedom recipient, 2009
- Frank Wilczek, SB'70, Nobel laureate in physics, 2004, for the discovery of asymptotic freedom in the theory of the strong interaction
- J. Ernest Wilkins, Jr., SB'40, SM'41, PhD'42, a PhD in mathematics at age 19; second African American elected to the National Academy of Engineering

Institute For Molecular Engineering

The Institute for Molecular Engineering is a powerful pioneer in engineering research and education. This exciting new field involves the incorporation of synthetic molecular building blocks – including electronic, optical, mechanical, chemical, and biological components – into functional systems that will impact technologies from advanced medical therapies to quantum computing and address pressing societal issues related to energy and the environment.



JUSTIN DEMMERLE
UChicago Degree AB'11,
Biological Sciences
Home Chevy Chase, MD
Occupation Research
Assistant at the University
of Oxford's Micron
Advanced Imaging Center

"My lab work at UChicago was the biggest factor in my being hired for this position, and the cause of most the professional success I've had. ...They were a great help, and supported me in reaching out to the individuals who eventually hired me."



XIAOXING XIA
UChicago Degree AB'13,
Economics
Home Beijing, China
Occupation PhD program
in the Materials Science
Department at California
Institute of Technology

"...UCISTEM made all the difference. UCISTEM not only broadened my mind but also provided me with the opportunities to work at the Argonne National Lab and UChicago's new Institute for Molecular Engineering."



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CHICAGO**

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