UChicago Careers in Science, Technology, Engineering, and Math

UChicago Careers in Science, Technology, Engineering, and Mathematics (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 an adviser 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 material 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.

Marine Biological Laboratory Pre-Orientation Program
The Marine Biological Laboratory Pre-Orientation Program is a unique opportunity for incoming first-year College students in the summer before they arrive on campus. Through the program, students engage with leading scientists and MBL programs, learn about and visit aquariums and marine ecosystems, and enjoy the food, culture, and natural environment of the New England coast.

Engineering at UChicago
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.

“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

National Laboratories
UCISTEM partners with Argonne National Laboratory, Fermilab, and Marine Biological Laboratory to bring leading scientists and students together, offer access to world-class facilities, and provide extensive research and internship opportunities for undergraduates.

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 Keynote Lecture is presented by a faculty member who is leading the university’s latest and most advanced discoveries in STEM fields.
Graduate School Exploration and Preparation Seminar
This seminar provides resources and networking opportunities to undergraduates who would like to learn more about graduate programs in STEM fields, the application process, timeline, and requirements for success. Students from all majors—including physics, chemistry, computer science, biological sciences, environmental sciences, mathematics, and economics—are encouraged to attend to explore graduate school programs and opportunities.

Graduate School Resources
UCISTEM provides a number of resources to students interested in applying to graduate programs in STEM fields, from those students just beginning graduate school exploration to those undergoing the application process. UCISTEM offers programs focused on application preparation, funding opportunities, and networking strategies. In addition, admissions representatives from numerous top graduate programs host information sessions through UCISTEM throughout the year.

Fall Technology Career Series
UCISTEM partners with the Department of Computer Science to offer weekly workshops to prepare students for a career in technology. These workshops provide technical interview training as well as resume reviews to students throughout Autumn Quarter.

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
- Google
- Institute for Molecular Engineering
- Kew Botanical Gardens
- Lincoln Park Zoo
- Marine Biological Laboratory
- Takeda Pharmaceuticals

Career 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 Laboratory, 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 Externship Program
Through the Alumni Board Externship Program, undergraduate students can spend one to five days of their winter or 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, PhB’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