Why Tufts School of Engineering?

Build a personalized path of study just a few miles from the high-tech hubs of Boston and Cambridge.

Why Tufts School of Engineering?
Engineer solutions that matter
Academic disciplines
Biomedical Engineering
Chemical and Biological Engineering
Civil and Environmental Engineering
Computer Science
Electrical and Computer Engineering
Mechanical Engineering
Management and Innovation (Tufts Gordon Institute)
Cross-disciplinary programs
Master’s programs
Joint Ph.D. programs
Certificate programs
Graduate student life

Small class sizes, shared with talented classmates
One-on-one career advising and workshops
Extensive professional development training and resources
Collaborative research that crosses disciplines
Countless opportunities to make connections
Mentorships from professors and industry professionals at the top of their field

Study at your own pace:
Master’s and certificate programs are available part-time or full-time.
Go in depth with a doctorate:
Fully-funded Ph.D. programs available.

Apply now:
gradase.admissions.tufts.edu/apply
Register for an info session:
go.tufts.edu/infosession
YOU’RE INVITED
to be part of Tufts School of Engineering’s future—part of something bigger than a great engineering school. An incubator for the leaders of the future. A spark for innovations that can elevate society. A positive force for social change. An engine for good.

At Tufts School of Engineering, students are innovating and creating new technology to improve health, increase sustainability, and educate future leaders in our increasingly interconnected global community. Combine classroom teaching and hands-on learning to earn a degree that will prepare you for success in your field.

Graduate programs in:
- Bioengineering (M.S.)
- Biomedical Engineering (Certificate, M.S., Ph.D.)
- Biotechnology (Certificate, Ph.D.)
- Chemical and Biological Engineering (M.S., Ph.D.)
- Civil and Environmental Engineering (Certificate, M.S., Ph.D.)
- Cognitive Science (Joint Ph.D.)
- Computer Engineering (Certificate, M.S.)
- Computer Science (Certificate, M.S., Ph.D., Post-baccalaureate)
- Cybersecurity and Public Policy (M.S.)
- Data Science (Certificate, M.S.)
- Electrical Engineering (M.S., Ph.D.)
- Engineering Education (Certificate)
- Engineering Management (M.S.)
- Environmental Management (Certificate)
- Human Factors Engineering (M.S.)
- Human Factors in Medical Devices and Systems (Certificate)
- Human-Computer Interaction (Certificate)
- Human-Robot Interaction (M.S., Joint Ph.D.)
- Innovation and Management (M.S.)
- Manufacturing Engineering (Certificate)
- Materials Science and Engineering (M.S., Joint Ph.D.)
- Mechanical Engineering (M.S., Ph.D.)
- Software Systems Development (M.S.)
- Microwave and Wireless Engineering (Certificate)
- Offshore Wind Energy Engineering (M.S.)

NEW
- Cybersecurity and Public Policy (M.S.)
- Data Science (Certificate, M.S.)
- Electrical Engineering (M.S., Ph.D.)
- Engineering Education (Certificate)
- Engineering Management (M.S.)
- Environmental Management (Certificate)
- Human Factors Engineering (M.S.)
- Human Factors in Medical Devices and Systems (Certificate)
- Human-Computer Interaction (Certificate)
- Human-Robot Interaction (M.S., Joint Ph.D.)
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Request more information:
go.tufts.edu/gradschoolinfo
In state-of-the-art lab space in the Science and Engineering Complex, Justinne Guarin works with Assistant Professor Madeleine Oudin to study the process of cancer metastasis. Their work helps to understand why tumor cells are likely to metastasize, and how the cancer microenvironment might affect response and resistance to therapy.

To learn more about Justinne and Professor Oudin, scan the code.

Learn more: engineering.tufts.edu/bme

Biomedical technology is booming. Companies are seeking engineers who understand the medical uses of diagnostic imaging instrumentation, who have training in tissue engineering, or who are well-versed in biomaterials to design artificial joints. Students graduate from Tufts ready to advance in the ever-changing field of biomedical engineering.
In Assistant Professor Nav Nidhi Rajput’s lab, researchers like graduate student Matthew Bliss use computer simulations to predict and understand the unique physical properties of materials. The lab’s work in areas such as the computational design of liquid electrolytes for energy storage could have big implications for next-generation batteries.

Tufts trains engineers in both the science of creating new chemical products and the economics of buying and selling those products. We know you need to work at the intersections of science, health, and technology, and we’ll prepare you for your next move, whether it’s pursuing a top career in industry or academia, founding a groundbreaking start-up, or studying in a highly-ranked Ph.D. program.
CIVIL AND ENVIRONMENTAL ENGINEERING

Civil and Environmental Engineering (Certificate, M.S., Ph.D.)
Environmental Management (Certificate)
Offshore Wind Energy Engineering (M.S.)
Bioengineering: Environmental Biotechnology track (M.S.)
Materials Science and Engineering (Joint Ph.D.)
Dual Degree M.S. Program (with Tufts Gordon Institute)

Today’s civil and environmental engineers work in areas spanning infrastructure, environmental and water resources engineering, environmental hazards, sustainability, climate change, and data analytics. Our programs combine classroom teaching with hands-on learning and close mentoring to help our students gain the knowledge and tools to pursue successful careers in a variety of traditional and emerging fields.

In the Advanced Geomaterials Laboratory, Deniz Ranjpour collaborates with Research Professor Jack Germaine to study the behavior of P and shear signals through clays. Deniz is vice-chair of the Civil and Environmental Engineering Graduate Student Organization, one of many supportive groups and community resources for Tufts graduate students.

To learn more about Deniz and Professor Germaine, scan the code.

To learn more:
engineering.tufts.edu/cee
Monsurat Olaosebikan is interested in using machine learning and visualization to explore research problems in computational molecular biology. She and Professor Lenore Cowen study better methods to rank candidate disease genes based on biological networks.

To learn more about Monsurat and Professor Cowen, scan the code.
ELECTRICAL AND COMPUTER ENGINEERING

Qianwen Wan works closely with Professor and Dean of Graduate Education Karen Panetta in the Vision and Sensing Systems Lab. From developing a comprehensive database for benchmarking facial recognition systems, to tracking elephant populations through the use of remote imaging and unmanned aerial vehicles, the team finds new ways to process visual data in real time.

Electrical engineers develop low-power hardware components to create high-speed wireless systems. Computer engineers study improvements to the energy efficiency of processors, devices, and batteries. From robotics to big data to new medical devices, electrical and computer engineers are changing the world we live in.

DEGREES

- Electrical Engineering (M.S., Ph.D.)
- Computer Engineering (Certificate, M.S.)
- Bioengineering: Signals and Systems track (M.S.)
- Data Science (Certificate, M.S.)
- Human-Robot Interaction (M.S., Joint Ph.D.)
- Materials Science and Engineering (Joint Ph.D.)
- Microwave and Wireless Engineering (Certificate)
- Dual Degree M.S. Program (with Tufts Gordon Institute)

Learn more: engineering.tufts.edu/ece
Brandon Weaver studies GPS and its application to attitude determination for a spinning spacecraft. As a Draper Fellow, he collaborates with Associate Professor Jason Rife in Tufts’ Automated Systems and Robotics Lab and with members of technical staff from Draper Laboratory.

Mechanical engineers invent, analyze, and manufacture mechanical components and systems. Learn tools to succeed across engineering fields like automotive, aerospace, shipping, power, heating and cooling, and machinery, as well as the new and emerging fields of robotics, micro- and nano-devices, and medical devices.
Tufts University’s Gordon Institute prepares scientists and engineers to become technology leaders and innovators. The MSEM is a part-time degree designed for working professionals who want to enhance their technical experience with advanced management and leadership skills, while the MSIM is a full-time, one-year program designed to broaden the education of recent engineering and science graduates with the skills needed to succeed as leaders in the technology sector.

Amanda Brady learns from dedicated faculty mentors like Professor of the Practice Kevin Oye. Her weekend and evening classes are a combination of classroom learning and hands-on projects. Amanda recently took on an elevated role in her new job at a top aerospace company, and she is now a senior mechanical engineer as she completes her degree.

DEGREES

- Engineering Management (MSEM)
- Innovation and Management (MSIM)
- Dual Degree M.S. Program (MSIM, plus an M.S. degree offered by another Engineering department)

Tufts University’s Gordon Institute prepares scientists and engineers to become technology leaders and innovators. The MSEM is a part-time degree designed for working professionals who want to enhance their technical experience with advanced management and leadership skills, while the MSIM is a full-time, one-year program designed to broaden the education of recent engineering and science graduates with the skills needed to succeed as leaders in the technology sector.
CROSS-DISCIPLINARY PROGRAMS

JOINT PH.D. PROGRAMS

Cognitive Science—Offered in one engineering department: Computer Science
- Human-Robot Interaction—Offered in three departments:
  - Computer Science
  - Electrical and Computer Engineering
  - Mechanical Engineering
- Materials Science and Engineering—Offered in five departments:
  - Biomedical Engineering
  - Chemical and Biological Engineering
  - Civil and Environmental Engineering
  - Electrical and Computer Engineering
  - Mechanical Engineering

Collaborating with departments across the university, Tufts School of Engineering offers three joint Ph.D. options. Students apply to a joint Ph.D. program through a home department and earn a degree both from that department and in their chosen discipline, maximizing interdisciplinary connections and innovative research opportunities.

LEARN MORE:
- go.tufts.edu/jointphd

MASTER'S PROGRAMS

Bioengineering—Independent program with the option to choose between six tracks:
- Bioinformatics
- Biomaterials
- Biomechanical Systems and Devices
- Cell and Bioprocess Engineering
- Environmental Biotechnology
- Signals and Systems

Data Science—Offered in two departments:
- Computer Science
- Electrical and Computer Engineering

Human-Robot Interaction—Offered in three departments:
- Computer Science
- Electrical and Computer Engineering
- Mechanical Engineering

Materials Science and Engineering—Independent program

New Cybersecurity and Public Policy—Joint degree offered by the Computer Science Department and The Fletcher School of Law and Diplomacy

Interdisciplinary learning is crucial to understanding engineering issues in the context of the greater world. Tufts students have the opportunity to collaborate with faculty, classmates, and researchers across all disciplines.

As a process development engineer ready to take the next step in his career, Omar Abdillahi takes full advantage of evening classes in the Bioengineering part-time master's program while soaking up knowledge from faculty mentors like Professor Kyongbum Lee.

LEARN MORE:
- go.tufts.edu/crossdisciplines

DEGREES
Public school teacher Vera Gor completed her K-12 engineering education certificate online. She engages her English language learner students through techniques she learned in the Center for Engineering Education and Outreach’s Teacher Engineering Education Program (TEEP). Pictured on a video call with CEEO director Meredith Portsmore, Vera uses engineering to develop hands-on, project-based learning experiences for students.

**CERTIFICATE PROGRAMS**

**Biomedical Engineering**
**Biotechnology**
**Civil and Environmental Engineering**
**Computer Engineering**
**Computer Science**
**Data Science**
**Engineering Education K-12 (TEEP)**
**Environmental Management**
**Human-Computer Interaction**
**Human Factors in Medical Devices and Systems**
**Manufacturing Engineering**
**Microwave and Wireless Engineering**

Are you looking to retrain or refocus your career? Consider Tufts’ practice-oriented certificate programs. Most consist of four or five graduate courses offered in the late afternoon or evening. They equal roughly half of the credits you’ll need for a master’s degree, and most credits will transfer to our graduate programs. Computer Science also offers a post-baccalaureate degree option.

**LIFE IN MEDFORD AND SOMERVILLE**

With just a short walk to the hip neighborhood of Davis Square, Tufts’ Medford/Somerville campus is a hub of activity. There’s always something happening at Tufts—visits from nationally-renowned speakers and performers, research symposiums, social events and volunteer opportunities, and celebrations of National Engineers Week and National Graduate Student Appreciation Week, just to name a few.

Students enjoy easy access to the wonders of the greater Boston area via local bus routes, the subway’s Red Line, and the free campus shuttle. Tufts will even be the home of a subway stop on the newly-expanding Green Line, expected to open within the next few years.

**DIVERSITY COMMITMENT**

We believe that the diversity of our graduate students deeply enriches our community. A diverse student body is fundamental to our academic mission to provide multiple views and perspectives that enhance knowledge. Our mission is to create a welcoming environment for all students.

Tufts student organizations offer opportunities to continue to build community across campus, and include:

- **American Society of Mechanical Engineers (ASME)**
- **Biomedical Engineering and Chemical Engineering Society (BEECHES)**
- **Civil and Environmental Engineering Graduate Student Organization (CEEGSO)**
- **Graduate Society of Women Engineers (GSWE)**
- **Institute of Electrical and Electronics Engineers (IEEE)**
- **National Society of Black Engineers (NSBE)**
- **oSTEM (Out in STEM)**
- **Society of Engineers and Scientists (SOLES)**
- **Tufts University Graduate Student Council**
- **Women in Computer Science**
APPLICATION DEADLINES:
To check your program’s deadlines, visit go.tufts.edu/graduatedeadlines

YOU’LL NEED TO SUBMIT:
- Academic records
- Letters of recommendation
- Personal statement
- Resume/CV
- GRE scores*
- $85 application fee
  * Visit go.tufts.edu/engmasters for complete details.

QUESTIONS?
CONTACT:
Office of Graduate Admissions
gradadmissions@tufts.edu
617.627.3395
asegrad.tufts.edu
Bendetson Hall, 2 The Green
Medford, MA 02155

Principle photography by Anna Miller and Alonso Nichols/Tufts University.