



University at Buffalo

School of Engineering  
and Applied Sciences

» YOUR FUTURE  
IS HERE FOR  
THE **TAKING.**

# who are we?



## WE ARE NEW YORK STATE'S LARGEST AND MOST COMPREHENSIVE PUBLIC SCHOOL OF ENGINEERING.

We are a SUNY flagship and the home of Empire AI. We are where students and top industries come to take advantage of state-of-the-art labs and facilities and where world-renowned scholars come to conduct research and teach the next generation of change-makers. We are where the best and brightest go to launch careers, power inventions, and solve society's most pressing challenges. We are the School of Engineering and Applied Sciences at the University at Buffalo. «



## WE ARE NEW YORK'S PUBLIC POWERHOUSE.

### SEAS Fast Facts

4,896

UNDERGRADUATE STUDENTS

280+

FULL-TIME FACULTY MEMBERS

9

DEPARTMENTS

15

DEGREE PROGRAMS

41,000+

SEAS GLOBAL ALUMNI

50+

STUDENT CLUBS AND ORGANIZATIONS

20+

RESEARCH CENTERS AND INSTITUTES

### Our Programs

#### MAJORS

- Aerospace Engineering BS
- Biomedical Engineering BS
- Bioinformatics and Computational Biology BS
- Chemical Engineering BS
- Civil Engineering BS
- Computer Engineering BS
- Computer Science BA, BS
- Electrical Engineering BS
- Engineering Physics BS
- Engineering Science BS
- Environmental Engineering BS
- Industrial Engineering BS
- Material Science and Engineering BS
- Mechanical Engineering BS

#### MINORS

- Computer Science
- Cybersecurity
- Electrical Engineering
- Human Factors
- Manufacturing
- Operations Research
- Quality Engineering
- Robotics

#### COMBINED DEGREES

- Biomedical Engineering BS/MS
- Biomedical Engineering BS/MBA
- Chemical Engineering BS/MBA
- Civil Engineering BS/MBA
- Computer Science BS/MBA, BS/MS
- Electrical Engineering BS/MBA, BS, MS
- Industrial Engineering BS/MBA
- Mechanical Engineering BS/MBA

*small-school  
atmosphere...*



WHERE HUMAN CONNECTIONS  
AND ACADEMIC POWER  
DRIVE YOUR AMBITIONS.

*...big university  
benefits*



**YES, UB IS A BIG SCHOOL. BUT DON'T LET THAT DETER YOU. WE ALSO HAVE BIG ADVANTAGES.**

Combine that with the close-knit communities in the School of Engineering and Applied Sciences and our small-school sense of belonging, and you'll get the best of both worlds. From Day 1, you'll have the resources of a major research institution – like cutting-edge facilities and faculty at the forefront of their fields – and the opportunity to work together on small teams to learn how engineers approach and model real-world problems. «

# hands-on experience



## WE BELIEVE IN LEARNING BY DOING.

Our learning experiences are designed to help you apply your knowledge in real-world contexts beyond the classroom. Whether conducting research with our esteemed faculty, doing an internship or co-op, or earning a digital badge through one of our nine micro-credentials programs, you'll gain practical skills that will set you apart.

Want to learn how to engineer better prosthetic limbs? Use supercomputers to explore drug interactions? Design and 3D print a laparoscopic robot? Send a satellite into space? It's all happening here at UB. «



OUR STUDENTS DON'T  
JUST SIT IN CLASS,  
THEY BUILD THINGS.

# student support



## WE ARE ABOUT YOU- AND EVERYTHING THAT MAKES YOU UNIQUE.

We prioritize creating a supportive and inclusive environment where all students from a broad range of backgrounds and academic preparations can thrive and succeed. With access to resources including mentoring, research opportunities, career support, and comprehensive health and wellness services, we ensure every student has the tools they need to succeed. You are our top priority, and your unique perspective and potential are celebrated and supported here. «



WE LOVE NUMBERS,  
BUT WE'LL NEVER SEE  
YOU AS JUST ONE.

## How we help you to succeed

- **Living accommodations based on your needs**, including family and gender-inclusive housing and restrooms, and accessible housing, parking, and barrier-free routes for people with disabilities.
- **Counseling services**, student emergency funds, wellness services, stress management and prevention support, and more.
- **A military-friendly school**, with dedicated services and support for student veterans.
- **Scholarships that can help cover costs**, provide mentoring, and help you put social justice theory into practice in STEM fields like our EDI Scholars Program.
- **Access to the Dean's Advisory Council**, where your input on how to address disparities in the STEM workforce will be heard.
- **Diverse student clubs** that foster a welcoming environment. See our list of clubs on page 12!
- **Paid research opportunities**, internships, and travel to workshops and conferences through the Louis Stokes Alliance for Minority Participation (LSAMP) program.
- **Career coaches who know STEM industries** inside and out, who can help you land your dream job or get into grad school.
- **A community of innovators and entrepreneurs** that will help you launch your business through our Startup and Innovation Collaboratory powered by Blackstone LaunchPad.



WHERE LEARNING TAKES PLACE  
FAR OUTSIDE THE CLASSROOM.

# study abroad opportunities



## ENGINEERING IS GLOBAL.

Take advantage of study abroad and exchange opportunities in 30+ countries where you can gain valuable international engineering experience while continuing to make progress toward your degree.

Our students often study abroad in places like:

- Costa Rica
- England
- France
- Italy
- Korea
- Sweden «

For more information visit:

[engineering.buffalo.edu/home/academics/beyond/global-programs](https://engineering.buffalo.edu/home/academics/beyond/global-programs)



# student clubs



## ENGINEERING IS FUN.

Your college experience should be filled with more than just academics. Make friends, pursue your passions, and have fun with extra-curricular activities! We have over 50 student clubs and organizations in the School of Engineering and Applied Sciences, many of which provide opportunities to compete in regional or national competitions and build your professional network. Our clubs bring that True Blue energy to UB traditions like Engineers Week, Battle Bots, steel bridge competitions, Space Week, and so much more. «



WILL YOU  
BUILD BRIDGES OR  
BATTLE BOTS?

## Our Clubs

### American Indian Science and Engineering Society

Focused on increasing the representation of American Indians, Alaska Natives, Native Hawaiians, Pacific Islanders, First Nations and other indigenous peoples of North America in STEM.

### American Institute of Aeronautics and Astronautics

Incorporates aerospace principles into two main projects: Design-Build-Fly and NASA's Microgravity.

### American Institute of Chemical Engineers

Connects academia to industry through plant tours, speakers, and design of chemical-powered car.

### American Society of Civil Engineers

Participates in concrete canoe, steel bridge and seismic design competitions. Opportunities to network with local engineers.

### American Society of Mechanical Engineers

Promotes hands-on skill development through solar boat and electric vehicle projects.

### Associated General Contractors of America

Connects students to professionals in the construction industry.

### Association of Computing Machinery

Hosts tech talks, hackathons, and events for those interested in software development and computer science.

### Biomedical Engineering Society

Supports biomedical engineering students through education and professional development.

### Engineering World Health

Addresses challenges faced by clinicians and technicians in the developing world.

### Engineers for a Sustainable World

Engineering sustainable solutions to everyday problems within the campus and local communities.

### Google Developer

Helps students bridge the gap between theory and practice. All majors welcome.

### Institute of Electrical and Electronic Engineers

Provides electrical engineering students technical and professional preparation for careers in industry and academia.

### Institute of Industrial and Systems Engineers

Promotes academic and professional development for industrial engineering students.

### Nanosat

Undergraduate research project that works with the Air Force Research Lab, NASA, and Moog, Inc. to build satellites from concept to launch.

### National Organization for the Professional Advancement of Black Chemists and Chemical Engineers

A professional organization dedicated to assisting Black and other minority students and professionals in their academic, professional, and entrepreneurial pursuits in chemistry, chemical engineering, and allied fields.

### National Society of Black Engineers

Academic and social organization focused on cultural responsibility, professional success, and community impact.

### National Society of Professional Engineers

Provides professional development and networking with local licensed P.E.s

### oSTEM

Empowering LGBTQA+ leadership in science, technology, engineering, and math.

### Phi Sigma Rho Colony

Sorority for women in engineering.

### Society and Computing

Explores impact of technologies on society.

### Society of Asian Scientists and Engineers

Dedicated to the educational and professional advancement of Asian heritage scientists and engineers.

### Society of Automotive Engineers

Emphasizes engineering and business experience through design and creation of a clean energy snowmobile and mini baja car.

### Society of Hispanic Professional Engineers

Social-technical organization seeking to enhance the potential of minorities in engineering, math and science.

### Society of Women Engineers

Leadership, professional development, and networking opportunities for women.

### Students for the Exploration and Development of Space

Activities include high and low power rocketry, astronomy, and weather balloons.

### Tau Beta Pi

The oldest and only honor society representing all engineering and computer science disciplines.

### Theme Park Engineering Club

Career exploration, design projects, and networking for students interested in theme parks.

### Theta Tau

Co-ed professional engineering fraternity.

### UB DivTech

Promotes diversity in technology by trying to provide equal access to opportunities such as internships, scholarships, and conferences.

### UB MakeOpenSource

Dedicated to giving students the opportunity to contribute to the open-source community.

### UB Pilots Association

Serves certified pilots, aspiring pilots, and aviation enthusiasts through flight simulation and talks with seasoned pilots.

### UB Robotics

Bridges computer science, electrical, and mechanical engineering fields through hands-on robotics projects.

### UB Space Bulls

Multidisciplinary group of students passionate about researching, designing, and building the next generation of mars rovers.

### UB Student Drone Club

Students build and fly drones and compete in the Collegiate Drone Racing Championship.

### Women of Aeronautics and Astronautics

Focuses on increasing the number of female aerospace graduates while providing mentorship and guidance to existing aerospace students.



## Don't see what you're looking for?

Share your interests and start a new club through the UB Student Association (UBSA). In addition to student club support, UBSA provides free services to students, such as the Blue Table Food Pantry, helps organize events like the International Fiesta, and advocates for UB students.





# prestigious alumni

## TRUST US. YOU ARE GOING TO WANT TO BE PART OF THIS CLUB!

Our 41,000+ alumni live in all 50 states and over 70 countries around the globe. They include CEOs of corporations, astronauts, the inventor of the cardiac pacemaker, and NASA's Goddard Center director. Members of our alumni association show their pride in their alma mater by sponsoring scholarships and internship opportunities for current students and actively mentoring students in formal and informal activities. «

**Erich Bloch** ELECTRICAL ENGINEERING BS '52  
NSF Director and recipient of the National Medal of Technology and Innovation

**Wilson Greatbach** ELECTRICAL ENGINEERING MS '57  
Inventor of the Chardack-Greabatch pacemaker and Greatbatch lithium-iodide battery cell

**Robin Li** COMPUTER SCIENCE MS '94  
Co-founder of Chinese search engine Baidu.com

**Christopher Scolese**  
ELECTRICAL ENGINEERING, COMPUTER ENGINEERING BS '78  
Director of NASA's Goddard Space Flight Center, Administrator of NASA

**Jeffrey Umland** MECHANICAL ENGINEERING BS '85, PHD '91  
Chief Mechanical Engineer of NASA's InSight mission, Chief Mechanical Engineer for the Curiosity rover



**Greg Jarvis**

ELECTRICAL  
ENGINEERING '67

NASA Astronaut and  
Payload Specialist for the  
Challenger Space Shuttle



WHEREVER YOU DECIDE TO GO  
YOU'LL BE IN GOOD COMPANY.



## Are you ready to take the next step?

We hold information sessions and tours on most Mondays and Fridays during the academic year. Learn more and register for a tour at: [engineering.buffalo.edu/visit](https://engineering.buffalo.edu/visit)

Apply now at:

[buffalo.edu/admissions](https://buffalo.edu/admissions)