# Undergraduate Programs in ENGINEERING AND APPLIED SCIENCES

A member of the prestigious Association of American Universities, the University at Buffalo stands in the first rank among the nation's research-intensive public universities. The School of Engineering and Applied Sciences is New York State's largest and most comprehensive public school of engineering.



UB students competing in the American Society of Civil Engineers steel bridge competition.

#### **Dedicated to Academic Excellence**

With state-of-the-art facilities, distinguished faculty, and outstanding students, your engineering education will be top notch, aimed at preparing you for a successful career, not just your first job.

#### When You Join the School of Engineering and Applied Sciences...

You join a thriving, diverse community alive with academic adventure, professional activities, national competitions, and social events that promote leadership, pride, unity, and professionalism in the engineering field.



**Engineers Week** 

### [ DEGREE PROGRAMS ]

The School of Engineering and Applied Sciences offers bachelor's degrees in the following disciplines:

- Aerospace Engineering\*
- Bioinformatics and Computational Biology
- Biomedical Engineering\*
- Chemical Engineering\*
- Civil Engineering\*
- Computer Engineering\*
- Computer Science\*
- Electrical Engineering\*
- Engineering Physics
- Environmental Engineering\*
- Industrial Engineering\*
- Mechanical Engineering\*
  \*ABET accredited

Also available are special combined degree programs that shorten the path to a master's degree by one year, including several that lead to a bachelor's degree in engineering with a master's degree in business administration (MBA). All departments offer master's and PhD programs. For more information, please visit the academic programs section of the undergraduate catalog:

undergrad-catalog.buffalo.edu

[ SEAS FACTS ] **3,800** Undergraduate Students

**1,900** Graduate Students

**1,693** Degrees Awarded in 2015-2016

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Departments

**176** Full-time Faculty Members

32,000 Alumni in 50 States and 70 Countries

**\$58.6** Million

Annual Research Expenditures

## engineering.buffalo.edu

University at Buffalo Office of Undergraduate Education School of Engineering and Applied Sciences

[ OFFICE OF UNDERGRADUATE EDUCATION | SCHOOL OF ENGINEERING AND APPLIED SCIENCES ] [ 410 BONNER HALL | BUFFALO, NY 14260 | UBENGINEER@BUFFALO.EDU | 716.645.2774] ]



[ UB SCHOOL OF ENGINEERING AND APPLIED SCIENCES ] Your Education, Your Career, Your Life.

#### **First Year Experience**

We have designed your first year to combine large-school opportunity with a small-school sense of belonging. Drawing on the National Academy of Engineering's "Grand Challenges for the 21st Century," our freshman engineering courses develop a vision of the engineering profession and its impact on society. Students work in project teams to learn how engineers approach and model real world problems, from the public policy level to hands-on design and testing.

Computer science and engineering students take a first year seminar that delves into the Internet's evolution and its inner working. Topics include policy challenges, societal impacts and possible future development.

Many freshmen also opt to participate in our Academic Small Groups, an innovative and highly successful program that helps students transition across the core curriculum of Chemistry, Math, and Physics. Throughout this year, a cadre of upperclass student leaders work closely with freshmen, serving as project team mentors, small group tutors, and "go-to" resources.

#### **Experiential Learning**

Our experiential learning programs encourage students to "engineer today" by becoming involved in activities outside the classroom, including job shadowing, intramurals, and internships, among others.



**Student Research** 

#### Undergraduate Research

Our undergraduate students and distinguished faculty engage in research projects that ignite the intellect and enliven the learning process. In partnership with the Center for Undergraduate Research and Creative Activities (CURCA), you too can be a part of this exciting world of discovery.

#### **Career Development**

Students follow a comprehensive four-year schedule of activities to enhance their development as professional engineers. UB's Career Services office provides a wide variety of services, including individual career counseling, connections with alumni mentors, resume and cover letter critiques, and job search and interviewing guidance. Career Services hosts recruiters from a variety of local and national employers who come to campus to attend job fairs, hold information sessions, or meet with students in our private interview rooms.

#### **Student Clubs**

UB's School of Engineering and Applied Sciences has more than thirty student clubs and organizations. Many clubs compete in a variety of national competitions. Our clubs can offer you teamwork skills, leadership experience, lasting friendships, and a sense of community, as well as plain old fun!

### **Study Abroad**

With opportunities in approximately thirty countries, UB students gain valuable international engineering experience while continuing to make progress toward their degrees. Among the features of the program are academic courses for UB credit, UB tuition, many courses in English, and optional intensive language training.

#### **Engineering Alumni**

UB's School of Engineering and Applied Sciences boasts over 32,000 alumni, located in fifty states and seventy countries. Our alumni 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, as well as actively mentoring students in formal and informal activities.

#### **Campus Visits**

UB Engineering and Applied Sciences information sessions and tours are available on most Friday mornings during the academic year. Additional sessions are often scheduled for school holidays and summer break. Reservations are required, so please see our schedule online at:

#### eng.buffalo.edu/undergrad/prospective/tours



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