Faculty

The SEAS faculty is known for their outstanding teaching, scholarship, and research. They are the recipients of many national awards, have earned many special professional titles, and provide editorial services to leading journals in their fields.

Faculty Numbers

- Full-Time Tenure-Track Faculty: 111
- Professors: 54
- Associate Professors: 35
- Assistant Professors: 22
- Full-Time Lecturers: 9
- Full-Time Research Faculty: 7

Faculty Honors

- US National Medal of Science
- National Academy of Engineering
- SUNY distinguished professor titles: 5
- National Science Foundation (NSF) Young Investigator Award: 3
- NSF Career, New Young Investigator: 2
- Presidential Faculty Fellowship Award: 2
- Presidential Young Investigator Awards: 20
- For Excellence in Teaching: 16
- Eli Ruckenstein, for his pioneering theories of the thermal, metal-support interactions, and catalysis, polymer composites, and dynamics of microemulsions; hydrodynamics for enhancing and promoting economic growth.

Economic Outreach

- SEAS is two-thirds through a seven-year University-Development program whose mission is to assist, retain and revitalize New York State industry and whose goal is to make business more competitive.
- 60 percent of the goal has been realized. We are confident of meeting and exceeding the goal.
- SPIR Data (2000-01 Academic Year):
  - Projects: 268
  - Particpating Companies: 65
  - Undergraduate Students: 223
  - Graduates: 16
  - Doctor of Science: 12
  - Master of Engineering: 40
  - Master of Science: 123
  - Bachelor of Science: 141
  - Bachelor of Arts: 25
  - Bachelor of Science: 412
  - Bachelor of Arts: 345
  - Graduates Students: 96
  - Doctor of Philosophy: 52
  - Master of Science: 223
  - Bachelor of Science: 141
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Students

The SEAS student body is both talented and diverse. Many earn honors and receive scholarship recognition. The following is a list of degrees offered by level, area, and graduation numbers for the most recent year:

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- ABD completed: Bachelor of Arts is available.
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- BREITFELD (Fall 2001)
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Student Empowerment and Workforce Preparation Programs

Alliance for Minority Participation (AMP)

A SUNY-wide NSF-sponsored program to improve the academic performance, retention and graduate rates of historically underrepresented minority students in the areas of engineering, mathematics, technology, and the natural sciences.

Buffalo-Area Engineering Awareness for Minorities (BEAM)

A consortium of companies, colleges and school systems to encourage pre-college minorities to consider engineering careers.

Center for Technical Communication (CTC)

CTC teaches students written and oral communications, formats credit courses and integrated short, specialized modules in standard laboratory and design courses and work experience programs. A group of experienced engineers and technical communication professionals advise and mentor students. CTC also provide short courses for industry.

International Student Program

An opportunity for engineering students to study abroad at over 100 universities in more than 25 countries.

SEAS Student Excellence Initiative (SESI)

A program to help all students achieve their academic potential and build supportive relationships with their peers and the faculty. A variety of programs are offered, including structured academic “small groups” for key courses, individual tutoring, and faculty-student mentorships. Student needs are diagnosed and integrated into course designs.

STEP and CSTEP

Pre-college and college Science and Technology Enrichment Programs (STEP) that provide instruction, training, and counseling services to students who are historically underrepresented in science, technology, health, and health-related professions.

Work Experience Programs

SEAS students may work in industry through a collection of programs that includes the Engineering Career Institute (ECI), a summer employment program, the Engineering Co-operative (Co-op) Education Program and Internships. (www.eng-intern.buffalo.edu)

More for information, please contact us at: School of Engineering and Applied Sciences 412 Bonnie 146 • Buffalo, NY 14260 Phone: (716) 645-2565, ext 117 Fax: (716) 645-2465 www.eng.buffalo.edu email: info@eng.buffalo.edu

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©2002
The University at Buffalo School of Engineering and Applied Sciences (SEAS) was founded in 1946 and has since become the largest and most comprehensive public school of engineering in New York State. UB became part of The State University of New York (SUNY) in 1982. SUNY is comprised of six divisions: Chemical Engineering, Civil, Structural and Environmental Engineering, Computer Science and Electrical Engineering, Industrial Engineering, and Mechanical and Aeronautical Engineering.

The school occupies five-plus modern buildings on UB’s North Campus, located in Amherst, New York. The mission of the School of Engineering and Applied Sciences (SEAS) is to educate and train engineers and other professionals with technical skill, a full regard for ethical principles, and a commitment to serving society. This is accomplished by preparing students to analyze problems in diverse fields, to develop solutions, and to design and manage projects related to important technical problems; to practice engineering using an interdisciplinary approach; and to practice ethical behavior in a wide variety of situations.

The SEAS faculty is a research-active group creating cutting-edge engineering projects and collaborating with industry, government, and other national institutes and laboratories. As an indication of the School’s fast-paced research program, the following major grants were received all or in part by the faculty between March 1 and August 31, 2000. Creation of a Liquid Metal Hg-Ca, Zn, Br, Br, Liquid Metal “Melter” and Related Engineering Projects (SUNY-C) $6.0 Million Grant from DOD.

In an experimental configuration using future imaging of cells and cellular processes; developing new methods of biomimicing and implementing new sensing applications; using nanotech and lasers for target- ing delivery in cancer; applying computational information technologies in the development of new medical and biological data analyses for national and international mechanisms; developing new photonic devices and systems that are hybrids of traditional polymeric and semiconductor materials with biological materials; and existing the existing current to provide students with maximum exposure to the diversity of photonics and prepare them to operate effectively in this rapidly advancing and changing field.

Early Career Faculty and Researchers: $2.5 Million from the National Science Foundation and $25M from the National Science Foundation.

Research expenditures for the last three years and an explanation of funding sources for the most recent year are depicted.

Faculty predominantly in Electrical Engineering, Chemical Engineering, Physics and Chemistry, Mechanical Engineering, and Materials Science Engineering work closely with researchers from other disciplines as well as groups outside SEAS with significant SEAS faculty participation.

The SEAS-Faculty is a research-active group creating cutting-edge engineering projects and collaborating with industry, government, and other national institutes and laboratories. Projects are conducted by individual professors or by groups of professors through organized research centers, institutes, and laboratories.
The UNiversity at Buffalo School of Engineering and Applied Sciences (SEAS) was founded in 1946 and since then become the largest and most comprehensive public school of engineering in New York State. UB became part of The State University of New York (SUNY) system in 1982. SEAS today is composed of six departments:

- Chemical Engineering
- Civil, Structural and Environmental Engineering
- Computer Science and Electrical Engineering
- Electrical Engineering
- Industrial Engineering
- Mechanical and Aerospace Engineering

The school occupies five-plus modern buildings on UB’s North Campus, located in Amherst, New York.

The mission of the School of Engineering and Applied Sciences is to provide effective and high-quality engineering education at the undergraduate and graduate levels, and a broad range of services to industry, government, practicing engineers, and the community at large. It is to provide and coordinate educational, technical and information services to industry, government, practicing engineers, and the community at large. It is to provide high-quality research that advances applied science and technology.

Our specific objectives are:

- To educate students to think critically and creatively, to identify and solve important technical problems, to practice engineering with a technical skill, a full regard for ethical principles, and an understanding of economic and environmental realities.
- To provide high-quality research that advances applied science and technology. While preparing future researchers for industry, academic, and government positions.
- To contribute to interdisciplinary and educational research efforts at the most technologically and social need.
- To provide and coordinate educational, technical and information services to industry, government, practicing engineers, and the community at large.
- To become a catalyst for attracting and increasing the private sector to the Western New York area.
- To reach out internationally for cooperation in education, research, and technology while preparing future researchers for industrial, governmental, and academic positions.

In 2009, SEAS was awarded a $12.5 million grant by the National Science Foundation (NSF) to launch the National Science Foundation Engineering Research Center (ERC) for Earthquake Engineering Simulation (NEES).

For more information, see www.eng.buffalo.edu/research

Research expenditures for the last three years and an explanation of funding sources for the most recent year are depicted.

Faculty predominantly in Electrical Engineering, Chemical Engineering, Physics and Chemistry have received the following two grants:

- The New York State Center for Engineering Design and Industrial Innovation: the Center for Computational Research, an interdisciplinary group of professors through organized research centers, including multimedia, visualization, and graphical user interfaces.

$12.5 Million
National Science Foundation
$16.5 Million
US National Science Foundation
$25.2 Million
US National Science Foundation
$26.6 Million
US National Science Foundation
$28 Million
US National Science Foundation
$31.3 Million
US National Science Foundation
$33 Million
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- Chemical Engineering
- Civil, Structural and Environmental Engineering
- Computer Science and Electrical Engineering
- Industrial and Manufacturing Engineering
- Mechanical and Aeronautical Engineering
- Materials Science and Engineering

The school occupies five-plus modern buildings on UB’s North Campus, located in Amherst, New York.

The mission of the School of Engineering and Applied Sciences is to provide effective and high-quality engineering education at the undergraduate, graduate and continuing education levels. With this in mind, the School is geared toward the development of engineers who will: be leaders in their professions; will continue to learn throughout their careers; will be imaginative and creative; and will contribute to interdisciplinary educational and research efforts. The School seeks to perform high-quality research that advances applied science and research in important areas of applied science and technology.

The SEAS faculty is a research-active group creating integrated research in targeted areas of computer science, as well as groups outside SEAS with significant SEAS faculty participation and attracting research expenditures for the last three years and an explanation of funding sources for the most recent year are depicted.

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Professors 54
Associate Professors 35
Assistant Professors 22
Full-Time Lecturers 9
Full-Time Research Faculty 7

Faculty Positions
Fellows of Professional Societies 26
SUNY Chancellor's Award
NSF Career, New Young Investigator
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Development
SEAS is benefitted through a seven-year University-wide comprehensive campaign entitled "The Campaign for UB: Generation to Generation."

Our School’s goal is $250M. We are appreciative of our many alumni, friends, faculty/staff, corporations and foundations, and all who have given generously.

To date, 60 percent of the goal has been realized. We are confident of meeting and exceeding the goal.

Economic Outreach
Strategic Partnership for Industrial Resurgence (SPIR) - an economic development program whose mission is to assist, revitalize and redirect New York State industry and whose goal is to make business more competitive.

SEAS faculty, staff, and graduate students work to foster partnerships between the University and the business community, and promote access to the University’s resources for the purpose of enhancing and promoting economic growth.

Tuition and Fees

Graduate Certificate Program
PhD
Industrial Engineering
Mechanical Engineering
Chemical Engineering
Electrical Engineering
Computer Science
Aerospace

Employment

Increased Sales $30M
Relaxed Leveraged $28M

CTC teaches high performance writing to help students achieve their academic potential and build supportive relationships with their peers and the faculty. Including structural academic "small groups" for key courses, individual tutoring, and faculty-student mentorships. Student needs are diagnosed and integrated into course designs.

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