engineers don’t just use technology—we create it!

Engineers design, build and change our 21st century world in surprising—and profound—ways. Answering society’s needs—for high tech products and revolutionary transport systems, pharmaceutical drugs and consumer products, better medical instruments and surgical techniques, clean energy, a sustainable environment, more user-friendly computers and software, communications technologies, sensing and defense—engineers shape our world in ways few others do.

The road to becoming an engineer is paved with fun diversions, challenges, camaraderie and emerging confidence as you proceed through your education. You’ll gain mastery over your engineering discipline and develop good leadership and communication skills, critical thinking, and an understanding of the ways technology can improve and simplify our lives and improve the lives of individuals worldwide. As a student in UConn’s School of Engineering, you’ll join an elite, close-knit group of friends and gain exceptional skills that you’ll apply as a sought-after, respected UConn engineering graduate.

“Top rated public university in New England” (Since 1999)
preparing you for

a future in engineering

Our curriculum stresses engineering fundamentals and relevant experience. From week one, students are immersed in a dynamic learning environment. Your preparation begins with the basics: coursework in math, chemistry, physics, liberal arts electives and introductory engineering courses. In these courses, as a team member or individual, you will immediately begin to solve real problems. Using the Engineering Learning Center—a cutting-edge computer lab—and other resources in various departments and research centers, you will tackle engineering projects side-by-side with classmates. After selecting a major course of study, you begin specialized coursework in one of five academic departments, with a choice of 12 exciting degree programs.

You may also combine any one of these programs with a minor in one of the 85-plus options available to UConn undergraduates. Ten engineering-specific minors include Bioinformatics, Biomedical Engineering, Computer Science, Electronics & Systems, Engineering Management, Environmental Engineering, Information Technology, Materials Science & Engineering, Nanomaterials, and Nanotechnology.

12 B.S. Degree Programs

- Biomedical Engineering
- Chemical Engineering
- Civil Engineering
- Computer Engineering
- Computer Science & Engineering
- Computer Science
- Electrical Engineering
- Engineering Physics (EE, ME, or MSE)
- Environmental Engineering
- Management & Engineering for Manufacturing
- Mechanical Engineering
- Materials Science & Engineering
We offer a broad range of educational options, from traditional engineering disciplines to newly emerging multi-disciplinary subjects that bridge the traditional gap between science and engineering. All of our programs are progressive, dynamic and outstanding, and our graduates enjoy excellent job prospects. Students entering the University of Connecticut as freshmen may apply, through the Admissions Office, for a highly competitive program that enables them to proceed directly to medical or dental school at the University of Connecticut Health Center upon successful completion (while maintaining a minimum 3.2 GPA) of the B.S.E. degree in biomedical engineering. We invite you to visit our website (www.engr.uconn.edu) or to contact individual departments for more detailed information about our degree programs. Following is a brief summary of our programs:

**Biomedical Engineering (B.S.E.)**
Innovations in medical devices, sensors, diagnostic and therapeutic techniques, prosthetics and organ replacement today meld medical science with engineering in a way never before possible. Our interdisciplinary biomedical engineering program involves coursework with medical or dental school faculty and engineering faculty, and lets you specialize in one of five core areas: Bioinformatics, Biomaterials, Biomechanics and Biosystems, Imaging, or Instrumentation.

**Chemical Engineering (B.S.E.)**
Applying the principles of chemistry, physics, and mathematics, chemical engineers devise effective solutions to diverse real-world problems. From the synthesis of new pharmaceuticals to the development of new energy technologies, areas of concentration include BioEngineering and Energy.

**Civil Engineering (B.S.E.)**
Today’s modern civil engineers apply fundamental engineering skills to society’s infrastructure (roads, buildings, treatment plants), transportation and environmental needs. Using new materials, computer simulations, and advanced models, they optimize systems to ensure sustainability with respect to the human-made and natural environments. Students may choose from Construction Management, Geotechnical Engineering, Surveying/Geodetic Engineering, Structural Engineering, Transportation Engineering, Environmental Engineering, or Hydraulic/Water Resources Engineering.

**Computer Engineering (B.S.E.)**
This program produces graduates with skills in designing computer hardware and peripherals, and emphasizes the electrical characteristics of the computer itself. It is focused primarily on designing the computer hardware, associated core software structures and their interfaces. Focus areas include real-time computing systems, communication and computing networks, and VLSI design/fabrication.

Students in the program get a strong grounding in both computer science and electrical engineering.

The program is jointly administered by the Department of Computer Science & Engineering and the Department of Electrical & Computer Engineering.

**Computer Science & Engineering (B.S.E.)**
This program produces graduates with a broad perspective in both software and hardware topics pertinent to computing systems. It provides laboratory and specialized knowledge necessary to analyze, design, and evaluate system software, utility programs and software-hardware architectures. The program is supported by study in mathematics, science, and engineering.

This allows students to design hardware and software solutions for a wide variety of application domains. Students gain hands-on experience in the laboratory courses accompanying classroom work, and develop design skills in coursework beginning in the first two years. Design experience continues during the junior and senior years in the areas of software engineering and in applications areas of your choosing.

**Computer Science (B.S.)**
This program produces graduates with a broad understanding of both computing principles and computing practice. The program emphasizes the fundamental computing models through the design and analysis of algorithms and software. Coursework includes a computing application area outside of the School of Engineering such as business or bioinformatics. The program is supported by study in mathematics, science, and engineering. Students gain hands-on experience in the laboratory courses accompanying classroom work, and develop design skills in coursework beginning in the first two years. Design experience continues during the junior and senior years in the areas of software engineering and in applications areas of the student's choosing.
**Electrical Engineering (B.S.E.)**
Electrical engineers (EEs) design and build the electric systems and devices vital for modern life. The unprecedented increase in transistor density on silicon chips, contributed in large measure by EEs, has provided immense gains in the performance of computer and communication systems such as the Internet and has spurred new inventions, such as PDAs, digital cameras and camcorders, digital phones and voicemail, computer controlled automotive systems, and medical imaging systems. Electrical engineers are employed in the microelectronics, consumer electronics, power and control systems, medical instruments, computer, automotive, aerospace and defense, laser and photonics, and communications industries.

**Engineering Physics (B.S.E.)**
Offered jointly with the College of Liberal Arts and Sciences/Department of Physics, the interdisciplinary Engineering Physics program offers students a solid background in the fundamentals of physics while applying that knowledge to engineering disciplines. The program is designed to provide a fundamental understanding of physical principles, solid development of quantitative skills, and a strong background in an engineering discipline. Home departments for this degree program are in Electrical & Computer Engineering, Mechanical Engineering and Chemical; Materials & Biomolecular Engineering.

**Environmental Engineering (B.S.E.)**
The health of our world is tied inextricably to the quality of our air, water, and soil. This interdisciplinary program focuses on the spectrum of issues surrounding pollution prevention, control and abatement; environmentally friendly and low-impact manufacturing; bioremediation; waste recovery and recycling; and sustainable alternative energy.

**Management & Engineering for Manufacturing (B.S.)**
This interdisciplinary program, offered jointly with the School of Business, provides students a solid foundation in engineering and business, plus a total enterprise vision and intimate knowledge of world class manufacturing and statistical quality assurance methods. Students graduate with a joint degree in engineering and business.

**Mechanical Engineering (B.S.E.)**
Mechanical engineers are concerned with the behavior of materials when forces are applied to them—such as the deformation of solids, the motion of liquids and gases and the heating and cooling of objects. Using these fundamentals, they design machines and develop processes for use in land, sea, air and space vehicles; intelligent machines and robots; new manufacturing processes; novel biomedical hardware and alternative energy production. Students may choose a focus in Aerospace, Energy and Power, Dynamic Systems and Control or Design and Manufacturing.

**Materials Science & Engineering (B.S.E.)**
This degree program is the only undergraduate materials engineering degree program offered by a public university in New England. With expertise in materials properties and processing, materials engineers play a critical role in product design, from materials selection to design of manufacturing processes that yield an economical and reliable product. Students may focus on Electronic Materials, Metallurgy, Biomaterials or Nanomaterials.

The range of starting salaries for our engineering graduates is $52,000-$65,000. Many of our B.S. programs culminate with a major design experience in the final year; this capstone course requires you—often as a team member—to research a problem, design a solution, and construct a working prototype.
Besides receiving the most comprehensive engineering education in New England, you will experience:

Camaraderie and fun. Our students form close friendships during their time at UConn that last a lifetime. Through team projects, and formal and informal study groups, you are surrounded by peers who share your academic experiences, assuring you a rich opportunity to form close personal ties.

Great teachers. Our 130 faculty members are committed to providing you a superior education that balances classroom instruction with hands-on laboratory experience. Many of our faculty have received prestigious national teaching and research awards; all are dedicated to providing you the best learning experience possible.

Research opportunities. Many undergraduates choose to work in faculty research labs where they help to advance important research while gaining vital hands-on experience on cutting-edge projects.

Individual attention. Our 15:1 student-to-faculty ratio ensures normal class sizes and personal academic attention. Our faculty are accessible and eager to provide academic assistance to help you succeed throughout your undergraduate years.

Foreign study. Many students take advantage of the EUROTECH® or Study Abroad programs to gain international experience and hone a language skill.

Scholarships. Each year, the School of Engineering awards more than $390,000 annually to continuing students.

Great jobs. Our graduates are recruited for exciting, challenging jobs by top employers throughout the nation.

Academic resources. No-cost academic tutoring and study groups are available to students seeking additional help with core science, math and engineering coursework.

Enriching environment. Many students choose to participate in one of UConn’s many Learning Communities, which provide a welcoming atmosphere, activities, seminars and friends centered within specific interest or major areas. These include the Engineering and EcoHouse Learning Communities, which provide a nurturing environment where students may explore a range of exciting engineering or environmental activities and events as well as a supportive community network. Similarly, those who choose to pursue a double major in German Studies and Engineering may find the EUROTECH Learning Community ideal. Other communities of interest include the Honors Program, Global House, Public Health House, and WIMSE (Women in Math, Science & Engineering).

Field Experience. Students may choose to gain valuable first-hand work experience during the undergraduate years through paid industry summer positions and co-ops.

Top-notch facilities. Our teaching facilities, computing and research laboratories are state-of-the-art and constantly upgraded to provide you the best, safest and most current learning resources and equipment.
before enrolling

What is engineering? What do engineers do? Find out. Each summer, approximately 100 high school juniors and seniors spend a week on campus, exploring engineering careers and day-to-day challenges in the workplace, as part of the Explore Engineering (E³) residential program. During the week, participants cover fundamental engineering concepts and perform a variety of hands-on experiments demonstrating core principles, from design and development of an EKG apparatus or a hovercraft to genetic manipulation of bacteria for environmental cleanup. E³ lets you explore engineering before making an academic commitment. For details, please contact our undergraduate office at (860) 486-5466 or by e-mail at programs@ engr.uconn.edu.

scholarships

The School of Engineering and the University of Connecticut proudly offer a large number of merit-based scholarships that enhance the affordability of a superb engineering education. Each year, the School of Engineering awards more than 230 merit scholarships, totaling more than $390,000, to continuing undergraduate students. In addition, the University offers a variety of merit-based scholarships, including the Nutmeg, Day of Pride, Presidential Scholarship Award for Valedictorians and Salutatorians, Academic Excellence Scholarship, and Leadership Scholarship.

exciting research opportunities

As an undergraduate student in engineering, you’ll also have an opportunity to participate in cutting-edge research in specialized laboratories and respected research facilities, such as the Bioinformatics & Biocomputing Institute; Booth Engineering Center for Advanced Technology; Center for Clean Energy Engineering; Connecticut Transportation Institute; Center for Environmental Science & Engineering; and Institute of Materials Science. Faculty members often invite undergraduates to work on research projects funded by industrial companies and government agencies, including the National Science Foundation, NASA, Department of Defense, Department of Energy and the National Institutes of Health.
paid internships, co-ops, and study abroad

During your sophomore and junior years, you may gain valuable real-world work experience through a paid six-month co-op with one of today’s leading engineering or manufacturing firms. As a summer intern, you’ll put your education to work immediately and perhaps lay the groundwork for your first job. Want to go global? Consider our acclaimed EUROTECH®/Internship program, which results in two degrees: a B.S. in engineering and a B.A. in German Studies. Best of all, you complete an internship in Germany working as an engineer in a German industrial company. Consult our website to learn more about study-abroad opportunities: www.engr.uconn.edu/EUROTECH or www.studyabroad.uconn.edu.

diversity

Through special scholarships, academic support and early preparation programs, we enhance the educational experience and success of students from groups traditionally underrepresented in engineering, including women and minorities. We offer several excellent pre-college options permitting underrepresented students in middle and high school to sample engineering, including our Multiply Your Options (MYO) one-day workshop for 8th grade girls and our Pre-Engineering Saturday enrichment program for grades 7-9. Once admitted to the engineering program, qualifying students may take advantage of our five-week summer readiness program, BRIDGE, which focuses on math, science and computer fundamentals. Group study sessions, tutoring, internships and mentoring are all provided to help qualifying students succeed.

To learn more, please contact:

Kevin McLaughlin, Director Engineering Diversity Program
km@engr.uconn.edu

Marty Wood, Assistant Dean of Undergraduate Education & Diversity
(860) 486-5466; marty@engr.uconn.edu
our engineering graduates go places!

As a graduate, you will be sought-after by many of the nation’s top employers. Our alumni go on to build highly rewarding, exciting and successful careers in all sectors of society. Take a look at some of our distinguished outstanding graduates, members of the UConn Academy of Engineers whose profiles appear on our website: www.engr.uconn.edu.

We also provide a sound foundation for those planning to pursue a graduate education in engineering, medicine, business or other disciplines. Among our graduates are legions of practicing engineers, CEOs of Fortune 500 companies; astronauts; presidents and vice presidents of top manufacturing companies; chief scientists at NASA, the U.S. Department of Energy, the U.S. Department of Transportation and other federal agencies; entrepreneurs and consultants; college professors; physicians and lawyers.

We Prepare You for Careers in Diverse Occupations

- Aerospace
- Architectural Engineering
- Biochemical Engineering
- Biomedical Engineering
- Biotechnology
- Chemical Engineering
- Civil Engineering
- Computer-Aided Design
- Computer Design and Software
- Computer Engineering
- Computer Science and Engineering
- Computer Science
- Communications Technologies
- Construction Engineering
- Electrical Engineering
- Environmental Engineering
- Fuel, Combustion and Energy
- Human-Machine Interfacing
- Information Engineering
- Manufacturing
- Materials Engineering
- Mechanical Engineering
- Pollution Prevention
- Polymer Engineering
- Product Safety and Reliability
- Structural Engineering
- Systems Engineering
- Technology Management
- Transportation Engineering
- Water Resources Engineering

plus many more!
Life at the University of Connecticut offers not only superb educational value, but also a full spectrum of college life experiences and activities. Our main campus in Storrs is situated in beautiful northeastern Connecticut with convenient access to Boston, Hartford and New York City. The University offers a rich array of social, cultural and recreational enrichments, including the William Benton Museum of Art, Connecticut State Museum of Natural History, Jorgensen Center for Performing Arts, and an array of musical and theatrical performances throughout the year. In addition, UConn is home to top men’s and women’s sports teams and offers a range of intramural sports opportunities for interested students.

Today, the University of Connecticut is enjoying a renaissance fueled by the State’s $2.3 billion investment in the university infrastructure. The results of this investment are apparent across the UConn campus. Soon, construction will begin on a new $170 million Tech Park at the UConn campus, funded by the State and private businesses, which will become a nexus for collaborative research and innovation in advanced manufacturing and materials while adding jobs. And in 2015, a new, $60 million state-of-the-art engineering building will open. It will host programs in mechatronics and cyber-physics, computer aided engineering, and integrated programs pairing biological sciences with various engineering disciplines. Beyond the highly visible new construction, a strong academic and teaching vitality pervades UConn, and particularly the School of Engineering.

Visit us online at www. engr.uconn.edu
school of engineering
top employers

Our graduates are employed in exciting and rewarding engineering positions with companies nationwide, including:

Accenture
Advanced Technology Materials, Inc.
AETNA
Alstom Power Inc.
Allen Seabor Wiegber, LLC
American Management Systems, Inc.
BAE Systems
Bayrak Pharmaceutical
Becton Dickinson
Bentley Systems
Bl Companies
Bloomfield Controls, Inc.
Brown and Caldwell
Carrier Corporation
Chemtura
Cianbro Corporation
Clark Corporation
CIGNA
Clough, Harbour & Associates, Inc.
Cognitanz Technologies Solutions
Connecticut Department of Transportation
Coreslab Structures (CONN), Inc.
Covisian
CSC
Dataviz, Inc.
Dataponi, Inc.
Disney
Dominion (Millstone) Nuclear Connecticut Inc.
DuPont
Duracell Corporation
Emerson Process Management – Fisher Division
ESPN
FactSet Research Systems, Inc.
FAST, Inc.
Finley McNary Engineers, Inc.
Food Automation Services Techniques, Inc.
Foss & O’Neill, Inc.
General Dynamics Electric Boat
General Electric Corporation
Gerber Scientific
Goodrich Corporation
Google
Groundwater & Environmental Services, Inc.
GZA Geoenvironmental, Inc.
Hamilton Sundstrand
Haydon Switch & Instrument, Inc.
Hewlett-Packard
Howmet Castings
IBM
Intel
Kaman Aerospace
Kiewit Construction Company
Klewin Building Company
Leggette, Brashers & Graham, Inc.
Lourier Engineering Associates
Massachusetts Department of Transportation
Media Marketing Assessments
Naval Undersea Warfare Center
Nerac
Northeast Utilities System
Olin Metals Research Laboratories
Otis Elevator
PepsiCo
Perkin Elmer Corporation
Pfizer Corporation
Phillips Laboratories
Phonon Corporation
Pitney Bowes Corporation
Pratt & Whitney
Procter & Gamble
ProtoPower Corporation
Proton OnSite
Raytheon Company
RBC Bearing
Rogers Corporation
Saint-Gobain Abrasives, Inc.
Savant Systems
Scan-Optics, Inc.
Sensata Technologies
Sikorsky Aircraft
Stanley Black & Decker
Stanolec
Synapse Group, Inc.
TBI Construction Company, Inc.
Technology Service Corp.
The Dennis Group
The Dewberry Companies
The Lee Company
The Torrington Company
The Travelers
The Wiremold Company
Turner Construction
Unilever Home & Personal Care
United Technologies, Inc.
URS Corporation
Vanasse Hangen Brustlin, Inc.
Waters Corporation
Wentworth Laboratories
Westinghouse Electric Company
Wilbur Smith Association
Woodard and Curran, Inc.
Wright-Pierce Engineers
York International Corp.
Zygo Corporation

To learn more, please contact Marty Wood, Assistant Dean of Undergraduate Education & Diversity, at (860) 486-5466 or, by e-mail, at marty@engr.uconn.edu.