

College of Engineering

Program Description

The Electrical Engineering Technology (EET) program at the University of Maine prepares students for professional electrical engineering careers in industry. The program provides students with the theory and “hands-on” experience necessary for them to quickly become productive in their jobs after graduation. The EET program offers two distinct paths to pursue the degree. These are the Electrical Option and the Information Technology Option.

A. Electrical Option: This option provides students with a traditional electrical and electronic engineering curriculum with extra concentration in subject areas that are particularly important to industry in the Northeast. These subject areas are: analog electronic design, integrated motion control, electrical machinery operation and microcomputer applications. All courses in the program are taught in a way that includes a strong component of practical applications, along with basic theoretical concepts.

B. Information Technology Option: An increasing industry demand for engineers with basic electrical hardware knowledge along with advanced network communication and management skills has led to this option. This pathway requires students to take the basic electrical courses during the first two years of the program and then branch to information technology courses in the last two years of the program. The eight information technology electives are taken in the areas of information science, management information systems, computer science and computer engineering.

Regardless of option selection, the EET degree requires students to gain an understanding of engineering management principles. Courses in engineering economics, statistical process control and project management are required of all graduates. This highlights the program’s focus on preparing graduates for entry into the work force upon graduation. The program is constantly updated in response to input from an Industrial Advisory Committee that has representatives from manufacturing, power utilities, process industries, data communications and electronics companies.

The faculty in the EET program focus upon teaching the students. They all have significant industrial experience and serve actively as consulting professional engineers when not teaching. Program faculty teach all classes and laboratories. Thus, students learn first-hand about current industry trends and the latest engineering equipment.

A very important part of the education of all EET students is a Senior Design Project course that runs for three semesters in the students' final years. Design projects are required in most of the EET courses to prepare students for their capstone project. The Senior Design Project requires student teams to solve a design problem while utilizing good engineering design and reporting procedures. The final semester of the Senior Design Project requires the students to write a professional paper and give an oral report on their project to the faculty and their peers.

Computers: All incoming students are required to have a laptop computer.

Career Opportunities

Graduates of the Electrical Engineering Technology (EET) program at the University of Maine boast an impressive record of success. EET graduates typically find professional entry-level positions in the engineering areas of production, manufacturing, field service, product testing, and quality control, as well as related areas in such firms as public utilities, paper mills, and electronics manufacturers. Recent graduates have

Contact

Scott Dunning, Director
 School of Engineering Technology
 5711 Boardman Hall, Room 119
 Orono, ME 04469-5711

207-581-2340
 207-581-2341
 FAX: 207-581-2113

Web site: <http://www.umaine.edu/set>

Judith Pearse, Coordinator
 5708 Barrows Hall, Room 13
 Orono, ME 04469-5708

207-581-2346

Admission Requirements

(In years as established by the college)

A high school diploma with the following specific courses:

- 4 English
- 2 Algebra I & II
- 1 Geometry
- 1/2 Trigonometry
- 2 Lab Science (*including physics*)
- 2 History/Social Studies
- Academic electives (*to equal at least 17 total credits*)

To ensure current mathematical skills, students should take a mathematics course during their senior year of high school.

Major Requirements

- 55 credits Electrical Engineering Technology
- 9 credits Other Required Courses
- 9 credits Technical Electives
- 27 credits Sciences & Mathematics
- 15 credits Human Values & Social Context
- 9 credits Communications (*English, writing, speech*)
- 3 credits Electives

127 Minimum total credit hours required for graduation

Career Opportunities (continued)

found employment as: Energy Services Advisor III, Central Maine Power Company; Test Engineer, G.S. Building Systems; Systems Engineer, Matec Instruments, Inc.; Senior Reliability Engineer, Bath Iron Works; Engineering Designer, Fisher Engineering; Telecommunications Engineer II, Central Maine Power Company; Supervisor, Research and Development, Bangor Hydro Electric Company; Electrical Design Engineer, Chinett Company; Power System Engineer, E-Pro; Associate Engineer, IDEXX Laboratories.

General Education Requirements*

ENG 101	College Composition
18 credits	Human Values & Social Context area (<i>a single course may satisfy more than 1 sub-category, but a total of 18 credits must be completed</i>) Western Cultural Tradition Social Context & Institutions Cultural Diversity & International Perspectives Population & the Environment Artistic & Creative Expression
2 courses	Designated Writing Intensive (<i>1 must be within the major</i>)
2 courses	Biological or Physical Sciences (<i>must include at least 1 laboratory course</i>)
1 course	Ethics (<i>emphasis on discussion of ethical issues in 1 course or series of courses</i>)
6 credits	Mathematics (<i>including statistics & some computer science, only 3 credits in computer science can count toward this requirement</i>)
1 capstone	An approved experience in which the student integrates the components of his or her undergraduate training to perform at a professional level. The capstone experience is usually completed during the senior year in consultation with the student's academic advisor.

**All UMaine students must complete these general education requirements, which are counted in the total credit hours required for graduation and may be contained in the Major Requirements previously listed.*

Specialized Information

Under the New England Regional Student Program, administered through the New England Board of Higher Education, the Bachelor of Science degree in Electrical Engineering Technology is open to applicants who reside in Connecticut, Rhode Island or Vermont for reduced tuition (in-state plus 50 percent).

Concentration & Minor Options

There are a number of minor programs of study that mesh well with the elective structure of the EET program. Two of the most attractive are the minors in Business Administration and Engineering Entrepreneurial. By carefully selecting both technical and general education electives, it is possible to graduate in four years with a Bachelor of Science in EET along with a BUA minor or Engineering Entrepreneurial. The BUA minor option is a good choice for students considering the possibility of a Masters in Business Administration.

Students who wish to pursue the electrical option but still gain some experience in computer and data networking applications may pursue a concentration in computer engineering technology. To achieve the concentration students are required to take 12 credits of approved courses offered by the computer engineering, information science and computer science departments for their free and technical elective choices.

Academic Programs 2008-2009

Please refer to the web site (<http://factsheets.umaine.edu/>) for the most updated version of the fact sheets.

This fact sheet is intended for informational purposes only and is subject to change.