

Contact

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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 (*chemistry & 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

- 49 credits Physics
- 26 credits Engineering
- 3 credits Technical Electives
- 25 credits Sciences & Mathematics
- 21 credits Humanities & Social Sciences
- 3 credits Free Electives

127 Minimum total credits required for graduation

College of Engineering

Program Description

Engineering Physics is a curriculum which combines the study of physics and engineering in one program. It is a major in applied science together with a carefully chosen sequence of engineering electives in one of the traditional engineering fields. Engineering Physics majors select an engineering sequence usually concentrating in electrical, mechanical, civil or chemical engineering. Engineering Physics is an Accreditation Board for Engineering and Technology (ABET) accredited engineering program.

The curriculum listed in the undergraduate catalog represents a sample program for a typical student in the Engineering Physics program. There are possible alternatives to this program and substitutions may be made for some courses on approval of the Chair of the Department of Physics and Astronomy. Students desiring to transfer from another engineering program in their first two years may do so without loss of credit or delay in graduation. The considerable flexibility of the engineering program allows students to design an individualized curriculum with the assistance of their academic advisor. Students have an opportunity to participate in internships which enhance their educational experience. Past positions have been with: Argonne National Laboratory; National Semiconductor; Great Northern Paper Company; Fort James; Foxboro Company; Maine Department of Transportation; Tibbetts Industries; Rainwise; University of Michigan Laboratories; Disney.

Career Opportunities

Opportunities exist both in-state and out-of-state for career positions in physics and/or the graduate's engineering sequence concentration. Graduates in Engineering Physics may be employed as electrical, mechanical, civil, chemical or biological engineers or as physicists. Some have created their own companies, while others have pursued non-engineering professions such as science, medicine, law, business, management and education.

General Education Requirements*

- ENG 101 College Composition
- 18 credits Human Values & Social Context area (*a single course may satisfy more than 1 sub-category, but a total of 18 credits must be completed*)
 - Western Cultural Tradition
 - Social Context & Institutions
 - Cultural Diversity & International Perspectives
 - Population & the Environment
 - Artistic & Creative Expression
- 2 courses Designated Writing Intensive (*1 must be within the major*)
- 2 courses Biological or Physical Sciences (*must include at least 1 laboratory course*)
- 1 course Ethics (*emphasis on discussion of ethical issues in 1 course or series of courses*)
- 6 credits Mathematics (*including statistics & some computer science, only 3 credits in computer science can count toward this requirement*)
- 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 Engineering Physics is open to applicants who reside in Connecticut, Rhode Island or Vermont for reduced tuition (in-state tuition plus 50 percent).

Graduate Study

Recent graduates of the Engineering Physics program have gone on to pursue a graduate degree at such institutions as Boston University, California Polytechnic Institute, the University of Colorado, the University of Connecticut, Cornell University, the University of Dayton, Duke University, the University of Maine, New Mexico State University, Virginia Polytechnic Institute, Yale University. The University of Maine offers a Master of Science in Physics degree, a Doctor of Philosophy degree in Physics, and a Master of Science degree in Engineering Physics.

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.