Program Overview

The Department of Physics offers an undergraduate program with the opportunity to earn a Bachelor of Science degree in physics.

Physics classes for undergraduate majors are typically small, guaranteeing individual attention. These courses are taught by faculty members who bring their research interests into the classroom. The 30 Physics faculty are currently involved in the following research areas:

- Astronomy and Astrophysics
- Biophysics
- Condensed Matter Physics
- Elementary Particle Physics
- Material Science
- Optical Physics
- Physics Education Research
- Solid State Physics
- Theoretical and Computational Physics

The department offers three areas of emphasis:

Physics: designed for majors who plan to study physics in graduate school

Applied Physics: designed for majors who seek an applied focus in optics, electronics, and other project areas

Teaching Physics: designed for majors preparing to teach physical sciences in middle or high school

Pre-Engineering 3/2 Program

The Physics Department coordinates a 3/2 program in which students earn a bachelor’s degree in Physics from UO and an Engineering degree from Oregon State University.

Preparation

Entering freshmen should have taken as much high school mathematics as possible in preparation for starting calculus in their freshman year. High school study of physics and chemistry is desirable.

Physics Department

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The University of Oregon is an equal-opportunity, affirmative-action institution committed to cultural diversity and compliance with the Americans with Disabilities Act. This publication will be made available in accessible formats upon request.
Physics is a branch of science which applies the laws of nature towards understanding the physical world in quantitative detail. Students who pursue the bachelor’s degree in physics will learn how these laws can systematically be applied to understand diverse phenomena and solve seemingly complex problems.

The analytical and problem solving skills acquired in physics will serve students well regardless of what career path they choose after graduation. In addition to major and minor programs, the Department of Physics offers a variety of courses for nonmajors and health science premajor students.

**Careers**
Fifty percent of graduates with bachelor’s degrees in physics find employment in the private sector working as applied physicists, software developers, managers, or technicians, typically alongside engineers and computer scientists. About 30 percent of students who earn an undergraduate degree continue their studies in a graduate degree program, leading to a career in teaching or research or both at a university, at a government laboratory, or in industry.

Students who have demonstrated their ability with a good record in an undergraduate physics program are generally considered very favorably for admission to medical and other professional schools.

In the Advanced Projects Lab, undergraduates use research-grade equipment as they explore the frontiers of modern physics. It’s a proving ground for students wondering if they’ve got what it takes to do research.

At many large universities, million-dollar scientific instruments are available only to graduate students and professors. However, the UO Physics Department offers undergraduates access to this equipment in the Projects Lab. This provides a unique opportunity for undergraduate students to perform hands-on research while designing their own experiments.

The Advanced Projects Laboratory was designed to provide undergraduates a true research experience, one that can’t be taught from a textbook.

**Willamette Hall**
Willamette Hall was designed specifically for the physics department. Its introductory physics laboratories are equipped with microcomputers to aid students in data acquisition and analysis. Significant funding from grants has provided up-to-date equipment for advanced laboratories in laser optics, electronics, and instrumentation.

**Why Study Physics?**
Founded by Eugene Skinner, a pioneer and explorer of the 1860s, the City of Eugene is a vibrant, progressive community that embraces its connection to the University of Oregon. Eugene has frequently been recognized as a great place to live:

- Livability.com called Eugene one of its Top 10 college towns.
- National Geographic’s “Green Guide” named Eugene the number one green city in the U.S. for air quality, recycling, transportation, and green space.
- Bicycling magazine called Eugene one of the ten most bicycle-friendly cities in the nation.
- Rolling Stone included Eugene in its list of “America's Top 10 Campus Music Scenes That Rock.”
- Money magazine has ranked Eugene among the best six U.S. cities in which to live.

Eugene is a safe, friendly, and exciting city with a small town feel. You’ll find shops to explore, a thriving local art scene, theaters, and several music venues.

**Living in Eugene**

**Advanced Projects Laboratory**

**Course Requirements**
For details on program and course requirements, visit our website at: physics.uoregon.edu, then click on "Undergraduate Studies."