

BY THE NUMBERS

10

bioengineering students*

45

bioengineering
participating faculty

32

materials science students

58

materials science
participating faculty

66

robotics students

45

robotics participating faculty

Based on data as of Sept. 1, 2019.

*New program in third year of enrolling students.



Oregon State
University

COLLEGE OF ENGINEERING

INTERDISCIPLINARY PROGRAMS

Rapid evolution in both the virtual and physically connected worlds compels a comprehensive response for engineering education today. Communication across disciplines, cultures, and languages requires a collaborative approach to creativity and problem-solving.

The College of Engineering values collaboration and the possibilities that exist through studies that draw upon the knowledge of several different disciplines to provide innovative solutions that will create a better future.

We offer several interdisciplinary graduate programs in which participating faculty from across the university are able to serve as mentors and advisors to students.

DEGREES

Bioengineering (M.Eng., M.S., and Ph.D.)

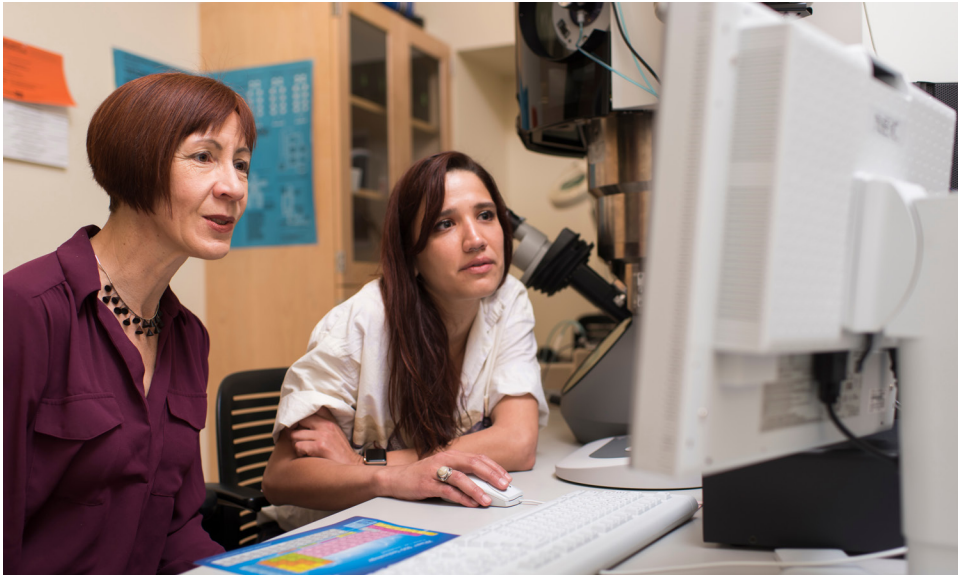
Bioengineering is an interdisciplinary field that applies engineering principles and quantitative methods to the advancement of knowledge at the molecular, cellular, tissue, organ, and system levels, and to the development of new biologicals, materials, devices, and processes.

Materials Science (M.S. and Ph.D.)

The discipline of materials science is inherently interdisciplinary, involving fundamental aspects of chemistry, physics, biology, geoscience, agricultural science, mathematics, and engineering. The materials science program spans three Oregon State colleges. This allows students to earn master's and doctoral degrees in materials science in many different areas of concentration, including all classes of materials, and in a wide range of materials behavior. The coursework requirements are extremely flexible to allow students to tailor their program of study to directly support their research activities.

Robotics (M.S. and Ph.D.)

Robotics at Oregon State offers students the opportunity to study the theory, design, development, and deployment of robots and intelligent systems in both the physical world and virtual environments. Our robotics program is recognized as one of the country's best, where top-notch graduate students and faculty conduct cutting-edge research and also explore the societal, legal, and ethical impacts of robotics technology.



RESEARCH

Bioengineering

Provides students with training, resources, and faculty expertise to conduct advanced studies in the core areas of:

- Biomaterials.
- Biomedical devices and instrumentation.
- Human performance engineering.
- Medical imaging.
- Systems and computational biology.

The bioengineering interdisciplinary graduate program involves faculty from the colleges of engineering, science, pharmacy, public health and human sciences, and agricultural sciences. It is administered by the School of Chemical, Biological, and Environmental Engineering.

Materials Science

Provides students with training, resources, and faculty expertise to conduct advanced studies in the core areas of:

- Electronic materials.
- Composite materials – fiber composites.
- Magnetic materials and superconductivity.
- Structural materials.
- Biomaterials and biological materials.
- Optical materials.
- Transportation materials.
- Nuclear materials.
- Polymers.
- Surface science.
- Analysis of materials.
- Metallurgy.
- Forest products.

The materials science interdisciplinary graduate program involves faculty from the colleges of engineering, science, and forestry. It is administered by the School of Mechanical, Industrial, and Manufacturing Engineering.

Robotics

Provides students with training, resources, and faculty expertise to conduct advanced studies in the core areas of:

- Robotic locomotion.
- Dextrous manipulation.
- Autonomous air, marine, and ground vehicles.
- Dynamics and control.
- Artificial intelligence.
- Human-robot interaction.

The robotics graduate program at Oregon State spans programs in the College of Engineering and involves core faculty from mechanical engineering, computer science, and electrical and computer engineering. Affiliations and collaborations across the university include oceanography, biomechanics, art, forestry, agriculture, and other programs.

ADMISSIONS AND FINANCIAL SUPPORT

A number of graduate fellowships as well as graduate teaching and research assistantships are available to eligible applicants. To be considered for graduate assistantships, apply by the application deadline for fall admission, which is listed under the respective program.

For more information, visit:

engineering.oregonstate.edu/interdisciplinary-programs

OREGON STATE UNIVERSITY

As Oregon's leading public research university, Oregon State's impact reaches across the state and beyond.

With campuses in Corvallis and Bend, the OSU Portland Center, the Hatfield Marine Science Center in Newport, 11 academic colleges, and research and extension centers across the state, Oregon State has a presence in every one of Oregon's 36 counties, with a statewide economic impact of \$2.714 billion.

COLLEGE OF ENGINEERING

Our college endeavors to create solutions that promote strong economies, healthy people, and a sustainable natural environment. Our program has a long history of producing world-class engineering graduates who make major impacts on society through significant contributions in science and technology. Alumni achievements include breakthrough innovations such as a revolutionary artificial heart valve, the computer mouse, and the concept of email.

By emphasizing practical, experiential engineering within our curriculum, we equip students with the knowledge, skills, and passion to advance innovative solutions to today's most complex engineering challenges in an inclusive environment.

CORVALLIS, OREGON

A beautiful college town nestled in the heart of the Willamette Valley, Corvallis is consistently ranked among the top 10 college towns in the nation and is known for innovation, education, entertainment, and overall livability. Corvallis embodies the spirit of the Northwest, with beautiful landscapes, friendly citizens, and an outstanding quality of life.

College of Engineering

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