



BY THE NUMBERS

81

Ph.D. students

91

master's students

43

faculty

\$8.9M

research expenditures

Based on data as of Sept. 1, 2019.



Oregon State
University

COLLEGE OF ENGINEERING

CIVIL AND CONSTRUCTION ENGINEERING

Graduate Programs

The School of Civil and Construction Engineering is a dedicated group of students, faculty, and staff who are solving some of the world's toughest challenges and creating a better future.

In the geomatics group, researchers employ state-of-the-art drones, laser scanning, and 3D visualization. In structural engineering, researchers are making advances in wood construction with cross-laminated timber, an alternative, renewable building material that features considerable cost savings compared to traditional materials. Researchers in the school are also developing new methods to strengthen aging infrastructure, prepare for potential hazards, and enhance workplace safety.

DEGREES

CCE offers three graduate degree programs:

- Master of Engineering
- Master of Science in Civil Engineering
- Doctorate in Civil Engineering

Students can focus their studies in any of the nine areas of civil engineering listed below and make use of specialized facilities to complete their work. Each area of concentration has unique requirements for each degree program, including the master of engineering program, which is a non-thesis degree.

- Coastal and Ocean
- Construction
- Engineering Education
- Geomatics
- Geotechnical
- Infrastructure Materials
- Structural
- Transportation
- Water Resources



RESEARCH

Coastal and ocean engineering emphasizes the interdisciplinary nature of research and education on emerging themes related to coastal climate change, including sea level rise and coastal storms; natural coastal hazards, including tsunamis and hurricanes; marine renewable energy; and coastal ecology and sustainable communities.

Construction engineering management is the application of scientific and technical knowledge to the processes used to construct infrastructure projects. Graduate studies emphasize CEM concepts and techniques and their broader application to the architecture, engineering, and construction industry.

Engineering education integrates the fundamentals of civil and construction engineering with the learning sciences. Students gain exposure to the latest in how people learn in academic and professional settings.

Geomatics integrates fundamental spatial data and boundary law theoretical knowledge with practical applications. Students gain exposure to the latest in geomatics technologies and boundary theory.

Geotechnical engineering emphasizes the integration of the principles of soil mechanics and the art of foundation and earth structure engineering. Theory is prominent, but it is constantly and critically re-evaluated with respect to its limitations and applicability to the practice of good geotechnical engineering.

Infrastructure materials emphasizes the fundamental understanding of materials and property relationships, microstructural development and its impact on long-term performance, durability and sustainability of civil and construction engineering materials, principles of green construction and materials selection, as well as rehabilitation,

assessment, and repair of infrastructure with a focus on materials aspects.

Structural engineering emphasizes an understanding of how to create safe, long-lasting, and economical structures. Researchers are developing modeling tools and investigating the behavior of a number of structural systems: reinforced concrete bridges, cross-laminated timber buildings, steel buildings, and wooden residential structures.

Transportation engineering applies scientific and technical knowledge to provide economical and efficient transportation service that meets societal needs while maintaining compatibility with environmental, energy, and safety goals.

Water resources engineering emphasizes interdisciplinary research and education on emerging themes related to extreme environmental events and hazards (e.g., floods, explosive air-water geyser flows), groundwater hydrology, watershed hydrology, green urban water infrastructure, hydroinformatics, water resources systems analysis, and adaptation to climate change.

FACILITIES

CCE graduate students conduct their research in world-class facilities. The O.H. Hinsdale Wave Research Laboratory is one of the world's largest and most technically advanced laboratories for coastal research. Additionally, the school is in the process of launching a revolutionary new 40,000-square-foot research facility.

- Directional Wave Basin
- Large Wave Flume
- Construction Safety Research Labs
- Geomatics Lab
- Geotechnical Research Lab
- Kiewit Materials Performance Lab
- Green Building Materials Lab
- Pavement Structures and Materials Lab
- Structural Engineering Lab
- Wood Structures Lab
- Driving and Bicycling Simulator Lab
- Center for Accessible Transportation
- Green Stormwater Infrastructure Research Facility

ADMISSIONS AND FINANCIAL SUPPORT

We offer a number of graduate fellowships as well as graduate teaching and research assistantships. To be considered for financial support, the application deadline for fall admission is Dec. 31.

For more information, visit cce.oregonstate.edu/graduate-academics.

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.

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