



BY THE NUMBERS

36

Ph.D. students

109

master's students

18

faculty

\$8M

research expenditures

No. 9

“Best Online Graduate
Engineering Program”
US News & World Report

Based on data as of Sept. 1, 2019.



Oregon State
University

COLLEGE OF ENGINEERING

NUCLEAR SCIENCE AND ENGINEERING

Graduate Programs

The School of Nuclear Science and Engineering offers graduate degrees in both nuclear engineering and radiation health physics. NSE is consistently ranked in the top tier of nuclear science and engineering programs in the nation, and we have the No. 1 radiation health physics program by number of graduates. Graduate students work with world-renowned faculty and have access to a breadth of unique research facilities and laboratories.

You can put your innovative stamp on real-world research projects such as advanced reactor design and medical isotope production with partners like Idaho National Laboratory, NuScale Power, and the Department of Energy.

Our graduates go on to shape the future of nuclear science and engineering worldwide, with more than 1,300 alumni living and working around the globe.

GRADUATE DEGREES

Nuclear Engineering

- Master of Science
- Master of Engineering
- Doctor of Philosophy

Radiation Health Physics

- Master of Science
- Master of Health Physics
- Doctor of Philosophy

ONLINE OPTIONS

Oregon State's radiation health physics program graduates the most students of any program in the nation.

In addition to on-campus options, you can complete your radiation health physics studies online. The current program offers both a research-based master of science degree and a professional master of health physics degree, which does not require a thesis.

Learn more at ecampus.oregonstate.edu.

“ENGINEERING OUT LOUD”

To learn how research and innovation here are helping change the world out there, listen to the College of Engineering's podcast at engineeringoutloud.oregonstate.edu.

NEW FACULTY

Izabela Gutowska, assistant professor

A 2012 Fulbright scholar from Poland, Gutowska completed her doctorate at Oregon State. She is one of the first nuclear engineering doctoral graduates from Poland since the 1980s. She is working on test facility design, instrumentation, and incorporation of system dimensional analysis for the Oregon State High Temperature Test Facility.

RESEARCH AREAS

Radiation transport and reactor physics

Researchers create and use software for the analysis and design of advanced nuclear technologies. The modeling and simulation of nuclear systems involves algorithm development, applied mathematics, computational physics, and software engineering. Multiphysics and multiscale phenomena are of significant interest.

Ionizing radiation dosimetry, detection, measurement, and instrumentation

Researchers specialize in the development of radiation detectors, real-time digital pulse-processing, and radiation dosimetry models. Members of the group develop and analyze advanced devices to address needs in areas such as homeland security, radiation protection, radiation-based imaging, and nuclear weapons test monitoring.

Nuclear security and nonproliferation

Researchers combine fundamental and applied nuclear science with elements of public policy to assist domestic and international organizations in assuring nuclear and radiological security and improving safeguards verification of the fuel cycle to slow the proliferation of nuclear and radiological weapons, materials, and technologies.

Nuclear thermal hydraulics and reactor safety

Researchers perform fundamental studies of heat transfer and fluid flow in nuclear reactor systems, design advanced safety equipment

for reactors, and build and operate unique, world-renowned separate effects and integral test facilities that provide essential data for licensing and operation of nuclear reactor systems.

Radiochemistry

Researchers focus on recycling of actinides and recovery of important fission products from used nuclear fuel, development of decontamination methods, and environmental and biomedical applications of radiotracers.

Radioecology

Researchers study the transport and uptake of radionuclides in the environment. Research includes development of radiation dose methodologies for individual organisms, and examines impacts to species, populations, communities, and ecosystems. Researchers are connected to other U.S. and international efforts and have global impact through strong collaborations.

Materials for nuclear engineering applications

Researchers focus on studying and improving the behavior of materials in harsh environments for both current and next-generation nuclear reactors and other nuclear systems. Members of the group employ state-of-the-art materials characterization and modeling tools to investigate the mechanisms of radiation damage, microstructural evolution, and materials degradation.

ADMISSIONS AND FINANCIAL SUPPORT

New graduate students are admitted once a year, for fall term matriculation. To be considered for NSE financial support (teaching or research assistantships), applications are due by Dec 31. For students who do not wish to seek NSE funding, applications are due May 1.

Ecampus students must complete their applications by Aug. 18.

For more information, visit ne.oregonstate.edu/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.

School of Nuclear Science and Engineering

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