NUCLEAR ENGINEERING GRADUATE MAJOR (MENG, MS, PHD)

Graduate Areas of Concentration

Application of nuclear techniques, arms control technology, nuclear instrumentation and applications, nuclear medicine, nuclear power generation, nuclear reactor engineering, nuclear systems design and modeling, nuclear waste management, numerical methods for reactor analysis, radiation shielding, radioisotope production, space nuclear power, thermal hydraulics

The School of Nuclear Science and Engineering offers graduate work leading toward the Master of Engineering, Master of Science, and Doctor of Philosophy degrees in Nuclear Engineering, Master of Science, Master of Health Physics, and Doctor of Philosophy degrees in Radiation Health Physics, and Master of Medical Physics, Master of Science, and Doctor of Philosophy in Medical Physics.

The nuclear engineering and radiation health physics graduate degree programs are designed to prepare students for careers involved with the many beneficial applications of nuclear energy, radiation, and radioactive materials. The nuclear engineering and radiation health physics professions are essential to society’s well-being since they enable significant public benefits through energy security, national defense, medical health, and industrial competitiveness.

In nuclear engineering particular attention is directed toward the application of scientific principles to the safe design and operation of nuclear installations. In addition, an emphasis is provided in system safety and thermal hydraulic testing, high-performance computational methods development, nuclear instrumentation, nuclear systems and materials, radiation protection, reactor analysis, nuclear power economics, and the regulation of nuclear operations.

Competitive fellowships and research and teaching assistantships are available to incoming graduate students. The U.S. Department of Energy and National Academy for Nuclear Training support a number of fellowship programs each year. Oregon State University is one of eight participating universities in the U.S. where students may attend graduate school on the Nuclear Engineering, Health Physics, and Applied Health Physics fellowships sponsored by the U.S. Department of Energy. Each year the National Academy for Nuclear Training also supports fellowships for students entering nuclear engineering and radiation health physics at OSU. Research and teaching assistant opportunities are also available for students to support the educational and research programs conducted by the department.

World-class facilities are available for the instructional and research programs of the department. These are housed in the OSU Radiation Center and include a TRIGA Mark II nuclear reactor, the Advanced Thermal Hydraulic Research Laboratory, the APEX nuclear safety scaled testing facility, and laboratories specially designed to accommodate radiation and the use of radioactive materials.

For more information, visit the department’s website at http://ne.oregonstate.edu/.

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