Our Mission

The Ken and Mary Alice Lindquist Department of Nuclear Engineering at Penn State is one of the top-ranked nuclear engineering programs in the United States. A strong focus on experimental research distinguishes us from many other programs. Our students can pursue research in advanced reactors, nuclear materials, nuclear security and safeguards, fusion science and engineering, and more. Access to the Breazeale Nuclear Reactor, the longest-operating university research reactor in the country, further bolsters our students’ learning and research work.

Degrees Awarded [2020-21]

- Undergraduate: 72 degrees awarded
  - 45 M.S.
  - 17 M.Eng.
  - 5 Ph.D.

2021-2022 Research Expenditures

- $9.9 million

Research expenditures include subcontracts, externally, and internally funded projects.
Hands-On Learning

Researchers in the Ken and Mary Alice Lindquist Department of Nuclear Engineering actively conduct research to generate new knowledge and strengthen and support undergraduate and graduate education at Penn State, in the United States, and in the world.

Our research is enormously collaborative, and our faculty participate in interdisciplinary research with national and international universities as well as many of the academic colleges, research centers, and consortia across Penn State.

The nuclear engineering department has numerous state-of-the-art research facilities where students can experience hands-on experimental techniques as well as modern computational simulations. Examples of such facilities include the Breazeale Nuclear Reactor, housed in the Radiation Science and Engineering Center; the Materials Research Institute; the Applied Research Laboratory; and more.

nuce.psu.edu

Degrees Offered

- B.S. in Nuclear Engineering
- M.S. in Nuclear Engineering
- M.Eng. in Nuclear Engineering (Penn State World Campus)
- Ph.D. in Nuclear Engineering

Research Areas

- Nuclear Science and Applications
- Nuclear Materials
- Nuclear Thermal Hydraulics
- Reactor Physics and Advanced Reactor Design
- Plasma Physics and Engineering
- Nuclear Security, Safeguards, and Safety
- Nuclear Fuel Cycle

Research Labs, Centers, and Groups

- Computational Nuclear Materials Group
- Computational Radiation Transport Lab
- Global Nuclear Power Safety Center
- Materials for Nuclear Power Group
- Radiation and Surface Science Engineering Lab (RSSEL)
- Radiation Science and Engineering Center
- Thermal Hydraulics Laboratory