Our department is known for its impressive array of nation- and world-leading fusion research facilities, and for its collaborations with even larger facilities around the world. Students routinely complete their research on some of most important facilities in the world, including DIII-D and W/7-X.

Our alumni have a long history in important technical leadership positions across multiple industries. Whether at the helm of the nation’s largest fleet of nuclear power plants, serving as commissioner in the US Nuclear Regulatory Commission, holding positions appointed by the president, or founding their own companies, our alumni are saving this planet and exploring the rest.

Since the U.S. Department of Energy’s Nuclear Energy University Program began more than a decade ago, UW-Madison has been the largest recipient of research funding. Those research projects place us at the forefront of advanced reactor technology development and have led to collaborations with many companies developing novel reactor designs, including TerraPower, NuScale, General Atomics, Kairos, and Terrestrial Energy.

We are among a handful universities who still maintain a nuclear reactor, not only for research, but as a “classroom” for our nuclear engineering students. For them, watching a reactor pulse—the flash of light caused by ejecting a control rod and allowing the reactor to rapidly increase in power—is an exhilarating experience.

Undergraduate students licensed by the Nuclear Regulatory Commission to operate the UW nuclear reactor (as of 2022).

EP majors that go on to graduate school after completing their BS.

UW-Madison spinoff companies: Realta Fusion, Type One Energy, SHINE Technologies

Undergraduate nuclear engineering programs are no longer ranked. Our undergraduate program historically has been ranked in top 3 nationally.
<table>
<thead>
<tr>
<th>DEGREES OFFERED</th>
<th>STARTING SALARIES*</th>
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<tbody>
<tr>
<td><strong>BS</strong></td>
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<tr>
<td>• Engineering Physics</td>
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<td>• Nuclear Engineering</td>
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<td>• Nuclear Engineering and Engineering Physics</td>
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<td><strong>PhD</strong></td>
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<tr>
<th>UNDERGRADUATE</th>
<th>$70,000+</th>
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<tbody>
<tr>
<td>GRADUATE</td>
<td>$98,000+</td>
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*approximate per year

**AREAS OF EMPHASIS IN THE GRADUATE PROGRAM**

[Nuclear systems engineering](#)
Research in radiation transport and neutronics, materials science and engineering, and thermal-hydraulics, as well as risk analysis and systems integration studies for fission reactors, fusion systems, and medical applications of nuclear technology.

[Plasma science and engineering](#)
Emphasizes high temperature plasmas for fusion energy applications (both magnetic and inertial), low temperature plasmas for industrial applications, such as plasma processing and plasma aided manufacturing, and basic plasma physics.

**RESEARCH AREAS**

- Experimental plasma physics
- Plasma theory and computation
- Nuclear materials
- Nuclear systems
- Energy transitions, policy, and security

**RESEARCH FACILITIES**

- Max Carbon Radiation Science Center
  - UW Nuclear Reactor
  - Ion Beam Laboratory
  - Characterization Lab for Irradiated Materials
- Pegasus-III Fusion Experiment
- Helically Symmetric eXperiment (HSX)
- Center for Plasma Theory and Computation
- Institute for Nuclear Energy Systems
- Nanoscale Imaging and Analysis Center

**DEPARTMENT CHAIR**

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Visit us on the web.