

Why NPRE?

As a high school or transfer student talented in **chemistry**, **physics**, or **mathematics**, you have many options to consider.

Is NPRE a fit for you?

NPRE is for students who:

- are passionate about impacting climate change and exploring renewable energy sources.
- want to work on future of fusion reactors with our own stellarator and tokamak.
- want to apply radiological science to advancing medicine and human health.
- would benefit from a flexible degree program.
- want to be involved in research as an undergraduate in one of our many departmental research labs.
- prefer the friendliness of a small department with access to a large research university's world-class professors and facilities.



Why choose NPRE?

Because great opportunities await you!

Our students study the development and use of **nuclear** reactions, radiation sources and fusion for energy production, **plasma**-material interactions for industrial processing and manufacturing, and **radiological** sciences for security applications and biomedical needs.

The major leads to excellent career choices for anywhere radiation is used or generated--in industry, medicine, and laboratories. Our graduates are passionate about producing sustainable, carbon-free, clean, nuclear energy; advancing plasma processing for electronic and manufacturing technologies; and innovating the use of radiation for human healthcare and homeland security.

Flexibility in three concentrations!



NUCLEAR POWER

Nuclear engineers work to solve the world's energy problems through the efficient, reliable and safe production of nuclear power. It is a multifaceted discipline, relying on several branches of physics and engineering.



PLASMA/FUSION

Engineers use plasma processing in semiconductor production and in cutting-edge manufacturing technologies. These engineers also explore nuclear fusion, the power of the sun, and develop new fusion reactors using our own stellarator and tokamak.



RADIOLOGICAL SCIENCES

The intersection of radiation technologies and medicine, security and other basic science areas (biology, chemistry, materials science, physics, and computer science) is home for these engineers. Some turn to medical professions; others focus on developing radiation instrumentation or homeland security technology.

Home of the 2022 American Nuclear Society Student Conference



NUCLEAR, PLASMA &
RADIOLOGICAL ENGINEERING

npre.illinois.edu

NPRE by the Numbers:

- Average B.S. degree scholarship amounts to qualified students from NPRE Department: \$3,000-\$5,000 annually
- Faculty to student ratio: 1:8

Careers

Our students find their careers in major utilities, startup nuclear companies, consulting firms, national laboratories, government agencies, the U.S. Nuclear Navy, semiconductor processing companies, developers of healthcare instrumentation, and anywhere else radiation is used or generated. Our radiological track is also of interest to students applying to medical school. NPRE's SPEED Interchange, career fairs and information on internships and workshops will help you make the connections you need to start an exciting, fulfilling career!

Get involved!

NPRE fosters a sense of community through support of our student organizations, the American Nuclear Society Illinois student chapter, and Women in Nuclear.

Hands-on research

Most of NPRE's faculty members involve undergraduates in their research groups, and other research opportunities exist throughout the Grainger College of Engineering and campus. All interested students are able to get research experience with our faculty.

Making college affordable

Scholarships and financial aid are available to incoming students to greatly reduce the costs of higher education. Numerous resources exist through the NPRE Department, The Grainger College of Engineering, UIUC, and external sources.

What alumni are saying...

"One of the things I was able to do as a student was work for different power plants. I was able to see a variety and compare how each plant works. Illinois opens doors for this type of experience. I want you to know that there are a lot of options that make Nuclear, Plasma, and Radiological Engineering very exciting."

"Over the years in school, the most experience I got was being involved in research. This allowed me to develop skills like making a program to process signals from a medical imaging device and produce images. Additionally, I was able to get better at public speaking skills when presenting that material in a poster."

"One of the great things about the NPRE Department at Illinois is that it's a very tight-knit department within the [Grainger] College of Engineering. The size enables you to know your peers and professors on a more personal level."

Connect with us!

Nuclear, Plasma, and Radiological Engineering is a top-rated program in one of the world's best universities for engineering disciplines!

For more details or to plan a virtual visit, please contact:

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