Welcome

TO NUCLEAR, PLASMA, AND RADIOLOGICAL ENGINEERING AT THE GRAINGER COLLEGE OF ENGINEERING!

We look forward to you joining the Illinois Grainger Engineering community and the Department of Nuclear, Plasma, and Radiological Engineering. By choosing Grainger Engineering as your destination for an education in NPRE, you are choosing to join a rich history of excellence in the myriad of applications of interactions of radiation with matter including the nuclear processes involved in the traditional areas of nuclear fission for electric power generation and in the development of new advanced nuclear systems for more efficient production of energy resources. This history also includes innovations in nuclear fusion and more recently the use of plasmas for materials processing. Research and educational efforts in NPRE@ILLINOIS also span other areas that include radiological science for radiation detection and medical imaging, medical physics, material science, homeland security, reliability and risk and other applications. Our graduates have gone on to lead advanced reactor development initiatives, hold leadership roles in national research laboratories, be innovators and entrepreneurs in plasma processing and laser development, and to be top researchers and administrators in academia who train the next generation of nuclear, plasma and radiological engineers.

At Illinois, your next few years will be life changing—full of opportunities and experiences that will shape you into a great engineer. You will meet people from around the world and from all walks of life. You will accomplish things of which some only dream. You will be equipped to create the change you want to see in the world. And we the faculty and staff of NPRE will be with you every step of the way to provide support and guidance so that you can discover your passion and successfully join the network of 80,000+ Grainger Engineering alumni around the world.

Learn more about the boundless opportunities that await you in Nuclear, Plasma, and Radiological Engineering at Illinois, and we hope that you will accept your offer to join us in August!

SINCERELY,

RIZWAN UDDIN
Professor and Department Head, NPRE

ACCEPT YOUR OFFER
AND BECOME A GRAINGER ENGINEER!

To accept your offer and join NPRE at Illinois, login to your myIllini account and follow the instructions provided for admitted students.

go.grainger.illinois.edu/accept

NUCLEAR, PLASMA,
AND RADIOLOGICAL
ENGINEERING

UNLEASH YOUR POWER
AT GRAINGER ENGINEERING

UNIVERSITY OF ILLINOIS
Students in the NPRE curriculum develop an ability to identify, formulate, and solve engineering problems by applying principles of engineering, science, and mathematics. About sixty percent of our NPRE graduates continue their education in graduate school, and about thirty-three percent take positions in industry. Common career options for NPRE graduates include the following: controls and control systems, energy policy and security, fusion development, biomedical research and healthcare, nuclear safeguards, and radiation detection. Students choose from among three concentrations depending upon their interests and professional objectives: power, safety and the environment, plasma and fusion science and engineering, and radiological, medical and instrumentation applications (the latter facilitates satisfying pre-med requirements).

WHAT YOU’LL STUDY

Nuclear, plasma, and radiological engineering encompasses a broad and diverse but complimentary set of engineering disciplines with a wide variety of applications - in energy production, plasma processing of materials, fusion development, biomedical research and healthcare, nuclear safeguards, and radiation detection. The first two years of the NPRE curriculum provides a strong foundation in sciences (physics, mathematics, and chemistry), in engineering (mechanics and thermodynamics), in computer use, and in nuclear energy systems. Most of the technical core and concentration coursework takes place in the third and fourth years of the curriculum. Among core technical courses you will take are: modeling nuclear energy systems, plasma and fusion science, neutron diffusion and transport and radiation protection. Students choose from among three concentrations depending upon their interests and professional objectives: power, safety and the environment, plasma and fusion science and engineering, and radiological, medical and instrumentation applications (the latter facilitates satisfying pre-med requirements).

CAREER OPPORTUNITIES

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Accepting my offer from NPRE was the best decision I’ve ever made. The endless opportunities, incredible faculty, and tight-knit community puts this program above and beyond my expectations.

I’m proud to be an Illini.

- Nataly Panczyk

NPRE Student