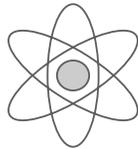




# SNAPSHOT

## DEPARTMENT OF ENGINEERING PHYSICS

2022 v1



**We are among a handful of 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.



**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, to serving as a commissioner in the US Nuclear Regulatory Commission, to piloting the space shuttle, to designing and deploying Mars landers, our alumni are saving this planet and exploring the rest.



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.



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.

### STUDENT ENROLLMENT

Engineering Mechanics

191

UNDERGRADUATE

Engineering Physics

32

UNDERGRADUATE

Nuclear Engineering

73

UNDERGRADUATE

21

GRADUATE

64

GRADUATE

### NATIONAL PUBLIC RANKING

according to U.S. News & World Report

2<sup>nd</sup>

UNDERGRADUATE

6<sup>th</sup>

GRADUATE

## DEGREES OFFERED

### BS

Engineering Mechanics  
(+Aerospace Engineering option)

Engineering Physics

Nuclear Engineering

### MS

Engineering Mechanics –  
Fundamentals of Applied  
Mechanics option

Engineering Mechanics –  
Aerospace option

Engineering Mechanics

Nuclear Engineering and  
Engineering Physics

### PhD

Engineering Mechanics

Nuclear Engineering and  
Engineering Physics

## STARTING SALARIES\*

**\$66,000+**  
UNDERGRADUATE

**\$78,000+**  
GRADUATE

**\$99,000+**  
DOCTORAL

\*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.

### MECHANICS OF MATERIALS

Emphasizes study of force, stress, deformation, and motion as applied to engineering materials, structures, and fluids. Research includes shape memory alloys, nano-structured films, biomaterials, bone and soft tissue, geo-materials, space structures, viscoelastic liquids, and fiber-reinforced composites.

**\$22m+**

AVERAGE ANNUAL  
RESEARCH FUNDING

## RESEARCH AREAS

Aerospace & Dynamics

Fusion Science and Technology

Mechanics of Materials

Nuclear Systems Engineering

Advanced Detection and Measurement

## RESEARCH FACILITIES

Center for Plasma Theory and  
Computation

Fusion Technology Institute

Institute for Nuclear Energy Systems

Materials Research Science  
and Engineering Center

Materials Science Center

Max Carbon Radiation Science Center/  
1 TRIGA Type Nuclear Reactor

Pegasus Plasma Experiment

Wisconsin Shock Tube

## DEPARTMENT CHAIR



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Professor of Nuclear Engineering

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Engineering Physics  
UNIVERSITY OF WISCONSIN-MADISON