

**ENERGY SOLUTIONS. POWERING TOMORROW.**



*Dr. Jim Baciak  
Nuclear Engineering  
Program Director*

The Nuclear Engineering Program is housed within the Herbert Wertheim College of Engineering's Department of Materials Science and Engineering at the University of Florida. The program offers students an opportunity to work on research teams related to backscatter radiation, extreme environments testing and nuclear fuel cycles. Students conduct research alongside academics and in partnership

with national labs and government agencies, including Idaho National Laboratory and the Department of Energy.

The department is ABET-accredited and offers bachelor's and graduate degrees in Nuclear Engineering. The program is conducting interdisciplinary research with materials science and engineering to expand on nuclear materials research.

**#14**

**NUCLEAR ENGINEERING  
PROGRAM AMONG PUBLIC  
UNIVERSITIES**

**\$1M**

**AWARDED IN FUNDING FROM DOE  
AND INMM FOR 2 EARLY CAREER  
FACULTY RESEARCH PROJECTS**

**\$6M**

**GRANT PROJECT  
BEING CONDUCTED  
WITH ARPA-E**

**8**

**NUMBER OF TENURED AND TENURE-  
TRACK RESEARCH FACULTY  
IN PROGRAM**



*Information sourced (from left): U.S. News & World Report;  
Departmental Resources; ASEE*

**Industry & Academic Partners**

*Argonne National Laboratory; Idaho National Laboratory; Oak Ridge National Laboratory; Pacific Northwest National Laboratory; United States Department of Energy; United States Department of Defense; Nuclear Energy University Program;*

**Research Areas**

- ▶ Nuclear Materials
- ▶ Radiation Detection and Imaging
- ▶ Reactor Physics
- ▶ Nuclear Security, Safeguards and Nonproliferation
- ▶ Fusion and Plasma Physics
- ▶ Thermal Hydraulics

**Research Facilities**

The Nuclear Engineering Program offers hands-on experience through its research labs. Facilities include the reactor, hot cell, microstructural characterization and mechanical testing laboratories. Below are three popular labs for students to gain research knowledge and one of our newest labs that will bring expand our nuclear proliferation research.

**University of Florida Training Reactor**

**Nuclear Materials Laboratory**

**HiPerGator (University of Florida High Performance Computing Center)**

**Laser and Optics Laboratory (under construction)**

## LEGACY OF EXCELLENCE. FUTURE FOCUSED.



Dr. Michele Manuel  
Department Chair, Rolf E.  
Hummell Professorship for  
Electronic Materials

The Department of Materials Science and Engineering at the University of Florida is the top-ranked program in the state and is one of the oldest in the country.

The department offers a hands-on approach to engineering steeped in a foundation of theoretical and science education that bridges engineering, chemistry and physics. The goal is to educate well-rounded and successful engineers through design labs where students

work on solving real problems facing society.

The department is ABET-accredited and offers bachelor's and graduate degrees in Materials Science and Engineering. The department offers students an opportunity to specialize in a specified material through a certificate option. In addition, the department is looking toward the future of engineering by expanding our nuclear materials and biomaterials research.

**#10**

MATERIALS SCIENCE &  
ENGINEERING DEPARTMENT  
RANKING AMONG PUBLIC  
UNIVERSITIES

**13:1**

UNDERGRADUATE STUDENT-  
TO-FACULTY RATIO IN THE  
DEPARTMENT

**TOP 5**

IN THE COUNTRY FOR MOST FEMALE  
FACULTY IN MATERIALS SCIENCE  
& ENGINEERING DEPARTMENT

**31**

NUMBER OF TENURED AND  
TENURE-TRACK RESEARCH  
FACULTY IN DEPARTMENT



Information sourced (from left): U.S. News & World Report;  
Departmental Resources; U.S. News & World Reports; ASEE

## HIGHLIGHTS



### CERTIFICATES

Undergraduate and graduate students can pursue a certificate in biomaterials, ceramic, electronic materials, metals or polymers.



### EQUIPMENT

Students are trained on industry-standard equipment, including the scanning electron microscope, polymer 3D printers, and ion-characterization



### DISTANCE LEARNING

Students can participate in the online program, EDGE, to earn a bachelor's or master's degree from afar. The Gator Nation is and can be everywhere.

**10**

ENDOWED  
PROFESSORSHIPS

These professorships are the result of donors who prioritize research and want to help attract and retain top faculty. Thanks to a \$1 Million gift in 2018, the department added two new named professorships honoring the legacy of the department founder, Dr. Frederick "Fred" Rhines and two early faculty, Robert DeHoff and Larry Hench.

### DEPARTMENT OF MATERIALS SCIENCE & ENGINEERING RESEARCH CENTERS & INSTITUTES

- ▶ Major Analytical Instrumentation Center
- ▶ Particle Analysis Instrumentation Center
- ▶ Institute for Cell Engineering & Regenerative Medicine
- ▶ Nanoscale Research Facility
- ▶ Particle Engineering Research Center
- ▶ Center for Particulate and Surfactant Systems