

# MATERIALS SCIENCE AND ENGINEERING DEPARTMENT

*Chair:* M. V. Manuel

The Department of Materials Science and Engineering offers the Master of Science, Master of Engineering, and Doctor of Philosophy degrees in Materials Science & Engineering (MSE) and Nuclear Engineering (NE). Requirements for these degrees are described in the General Information section of this catalog.

Degrees in MSE include specific areas of research and study in biomaterials, ceramics, composites, computational materials science, electronic materials, metals, polymers, nanomaterials, and nuclear materials. Degrees in NE include specific areas of research and study in advanced nuclear power concepts and systems, digital control of nuclear reactor power plant technology and operations, reactor dynamics and control, advanced radiation detectors and analysis in support of nuclear forensics and homeland security.

**Nontraditional Degree Programs:** The Department offers combination bachelor/master's degree programs: MSE BS/MS, NE BS/MS, and students may also combine the MSE BS with the MS awarded through the Dept. of Biomedical Engineering (BME). The combination bachelor/master's program allows qualified students to earn both degrees in materials science and engineering with savings of a tangible number of credit hours. Qualified students are allowed to begin master's course work in their junior years and double count specific graduate courses for both degrees. The master's degree may be completed within 2 to 3 semesters after completing the bachelor's degree. Program admission requirements are:

1. satisfaction of Graduate School admission requirements prior to the beginning of the senior year,
2. an upper division GPA of at least 3.5 in MSE and 3.4 in NE,
3. for MSE, completion of a minimum of 18 credit hours of courses,
4. admission by the Department's Graduate Admission Committee and approval by the College of Engineering and the Graduate School.

For more information, contact the Department.

The J.D./M.S. in MSE (thesis/non-thesis) is a joint degree program culminating in both the Juris Doctor degree, awarded by the College of Law, and the Master of Science (thesis/non-thesis), awarded by the College of Engineering. Under this program, a student can earn both degrees in approximately 1 year less than it would take to attain both degrees if pursued consecutively.

The concurrent M.D./Ph.D. degree in MSE is a joint degree program offered through a collaborative program between the College of Medicine and Materials Science and Engineering. For more information, please contact the Department.

To be eligible for regular admission to the graduate program within the Department, the student must hold a B.S. in an appropriate major. Because of the breadth of MSE graduate programs, students with degrees in materials, ceramics, metallurgy, other engineering, mathematics, or science areas (such as biology, chemistry, or physics) have found ample opportunities to pursue their research and training areas of interest.

## Majors

- Materials Science and Engineering (<http://gradcatalog.ufl.edu/graduate/colleges-departments/engineering/materials-science/materials-science/>)
- Nuclear Engineering Sciences (<http://gradcatalog.ufl.edu/graduate/colleges-departments/engineering/materials-science/nuclear-sciences/>)

## Faculty

### Professor

- Abernathy, Cammy
- Andrew, Jennifer
- Hennig, Richard
- Hite, Jennifer K.
- Mecholsky, John J.
- Myers, Michele V.
- Nino, Juan C.
- Norton, David P.
- Sigmund, Wolfgang Michael
- Tonks, Michael
- Wall, Nathalie A.
- Xue, Jianguo

### Associate Professor

- Aitkaliyeva, Assel
- Allen, Josephine
- McDevitt, Christopher
- Watson, Justin C.

### Assistant Professor

- Butala, Megan Marie
- De Hoe, Guilhem X.
- Hartig, Kyle Cameron
- Kim, Honggyu
- Krause, Amanda Rochelle
- Miller, Victoria Mayne
- Need, Ryan F.
- Neitzel, Angelika Elisabeth

### Distinguished Professor

- Jones, Kevin S.
- Pearton, Stephen J.
- Phillpot, Simon R.

### Research Professor

- Glicksman, Martin E.

### Associate Engineer

- Gila, Brent P.
- Rudawski, Nicholas G.
- Schubring, DuWayne

## Engineer

- Dempere, Luisa Amelia

## Affiliated Faculty

- Angelini, Thomas Ettore  
Associate Professor
- Baciak, James Edward  
Professor
- Enqvist, Andreas Per Jon  
Associate Professor
- Greenslet, Hitomi  
Professor
- Huang, Yong  
Professor
- Otto, Kevin  
Professor
- Schmidt, Christine E.  
Professor
- Spearot, Douglas  
Professor
- Subhash, Ghatu  
Professor
- Vermerris, Willem  
Professor
- Yang, Yong  
Associate Professor