

## DEPARTMENT HISTORY

# 2018

Department of MSE founded

The field of materials science and engineering sits at the intersection of chemistry, physics and engineering, with increasing expansion into mathematics, computing, machine learning, manufacturing and imaging, plus economics, sustainability and public policy. MSE is the field that enables all other areas of engineering by understanding – and therefore creating – new and exciting materials that enable faster computers, cleaner energy, more efficient automobiles and airplanes, stronger and longer-lasting hip implants and so much more! Created as a new department in 2018, MSE houses our well-established ABET-accredited B.S. in materials science and engineering, as well as a minor available to other undergraduate majors. We also offer a doctoral program in MSE and three options for master’s degrees. We are an interdisciplinary and enthusiastic group of faculty and staff who are firmly committed to the success of our students and programs.

## STUDENT POPULATION

# 104

Undergraduate Students (Fall 2020)

43 First generation  
18 URM  
31 female

### B.S. degrees

- Materials Science

# 94

Graduate Students (Fall 2020)

### M.S. and Ph.D. degrees

- Materials Science and Engineering

## RESEARCH & EXPENDITURES

# \$7.0M

2020-21 Research Expenditures

## 7 Research Thrusts

- Advanced and Additive Manufacturing
- Advanced Materials Characterization
- Biomaterials, Bioinspired and Self-Assembled Materials
- Energy Materials and Sustainability
- Materials for Structural Applications and Extreme Environments
- Modeling, Theory and Computational Approaches to Materials Science and Engineering
- Nanoscale and Functional Materials

## 12 World-class Center Affiliations

- Advanced Casting Research Center (ACRC)
- Advanced Power and Energy Program (APEP)
- Irvine Materials Research Institute (IMRI)
- Institute for Design and Manufacturing Innovation (IDMI)
- Integrated Nanosystems Research Facility (INRF)
- Laboratory for Fluorescence Dynamics
- Laser Spectroscopy Facility
- Mass Spectrometry Facility
- Materials Discovery Center (MDSC)
- Materials Research Science and Engineering Center
- Nuclear Reactor Facility
- World Institute for Sustainable Development of Materials (WISDOM)

## FACULTY & RECOGNITION

**15** Full-time Faculty  
**20** Affiliated Faculty

- 1** Hispanic Hall of Fame, HEENAC Great Minds in STEM
- 1** The Minerals, Metals & Materials Society Fellow
- 2** National Academy of Engineering Members
- 4** NSF CAREER Awards
- 1** DoE Early Career Award
- 2** Air Force Office of Scientific Research Young Investigator Award
- 1** Army Research Office Young Investigator Award
- 1** Presidential Young Investigator
- 3** National Academy of Inventors
- 2** Distinguished Professors
- 1** Distinguished Visiting Professor
- 2** Endowed Chairs