

MASTER OF SCIENCE IN MATERIALS SCIENCE AND ENGINEERING

Materials Science and Engineering (MSE) research is aimed at educating and training the next generation of out-of-the box thinkers to solve the biggest global challenges.

By fostering a multidisciplinary approach, MSE degree programs strive to endow students with the tools to strategically question current design paradigms and drive innovative materials and manufacturing solutions across a diverse range of sectors. Motivated by modern materials challenges in energy, computing, transportation, impact protection, robotics, and global health care, MSE programs' comprehensive, experiential training is designed to arm graduates with a modernized skill set tailored to confront those challenges head-on.

MSE degree programs are designed to engage students with:

- Active hands-on training in the latest materials characterization and computational methods, materials-focused intellectual property protection and technology transfer, and professional soft skill development.
- Enhanced educational opportunities promoted through industry partnerships, facilitating internships, and class time spent in active commercial manufacturing labs.
- A diverse core of faculty mentors driving advances in controlling structure at the nanoscale, predictive property modeling, high-performance metal, polymer and ceramic composites, photovoltaics, and additive manufacturing.

The overall objective of the **Materials Science and Engineering MS-Thesis, Plan A (coursework + thesis) and the MS-Coursework, Plan B (coursework + seminar/paper)** degrees is to develop students to be science and engineering professionals who use their multidisciplinary problem-solving skills to address global challenges in the field of materials science and engineering.