Materials science is the study of processing-structure-property relationships in materials that are important to society. Special attention is paid to “microstructure,” i.e., how materials (polymers, ceramics, semiconductors, superalloys, and biomaterials) are constructed on the microscopic, sub-microscopic and even atomic level, and how this affects their properties.

**QUICK FACTS:**
- 24 faculty members
- 111 undergraduate students
- 26 average students per course

**UPPERLEVEL COURSES**
- MSE 376 Nanomaterials
- MSE 382 Electrochemical energy materials and devices
- MSE 370 Biomaterials
- MSE 360 Electron microscopy

**RESEARCH AREAS**
- Materials for energy (batteries, capacitors, photovoltaics)
- Biomaterials (tissue engineering, biomimetic materials, bio-compatible materials)
- Electrical materials (conductors, semiconductors, dielectrics, magnetic materials)
- Materials synthesis and processing
- Materials characterization
- Materials computation and design

**5 CHALLENGES in the NEXT 5 YEARS**
To develop advanced materials for solutions to problems with:
1. Energy
2. Environment
3. Healthcare
4. National Security
5. Infrastructure

**PLANS of GRADUATING SENIORS ’08-’12**
(reported at time of graduation)

**INDUSTRY: Examples of Positions held by ’12 Grads**
- Test Engineer, Cobham SATCOM, Sea Tel
- Project Engineer, Illinois Tool Works—Ramset
- Design Engineer, GE Energy
- Materials and Processing Engineer, The Boeing Company

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