## Materials Engineering + Data Science

Be among the first to earn a B.S. in Materials Engineering + Data Science — a degree our department is pioneering nationally. Design safer battery materials using machine learning. Create stronger aerospace alloys through AI simulations. Accelerate quantum computing with data-powered discoveries.

**Revolutionary Program »** Master materials fundamentals while wielding cutting-edge computational tools. Position yourself at the intersection of materials science and data science as technology reshapes industries forever.

**Perfect Timing »** Traditional materials development relies on extensive testing. AI-powered approaches accelerate discovery and optimization. Industries demand professionals who bridge materials science and data science.

### Careers to Pursue

» Computational Materials Engineer
» Materials Informatics Engineer
» Data Scientist for Smart Manufacturing
» Machine Learning Engineer for Materials
» AI Engineer for Materials Discovery

## *Explore* MATERIALS ENGINEERING

**To learn more about our undergraduate programs in Materials Engineering and Materials Enginering + Data Science, visit:**

» go.matse.illinois.edu/admissions

**Materials Science & Engineering**
201 Materials Science and Engineering Building
1304 West Green Street
Urbana, IL 61801

**The Grainger College of Engineering**
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

# MATERIALS SCIENCE & ENGINEERING

# *Discover* MATERIALS ENGINEERING

GRAINGER ENGINEERING

# Materials Engineering: Choose Your Path

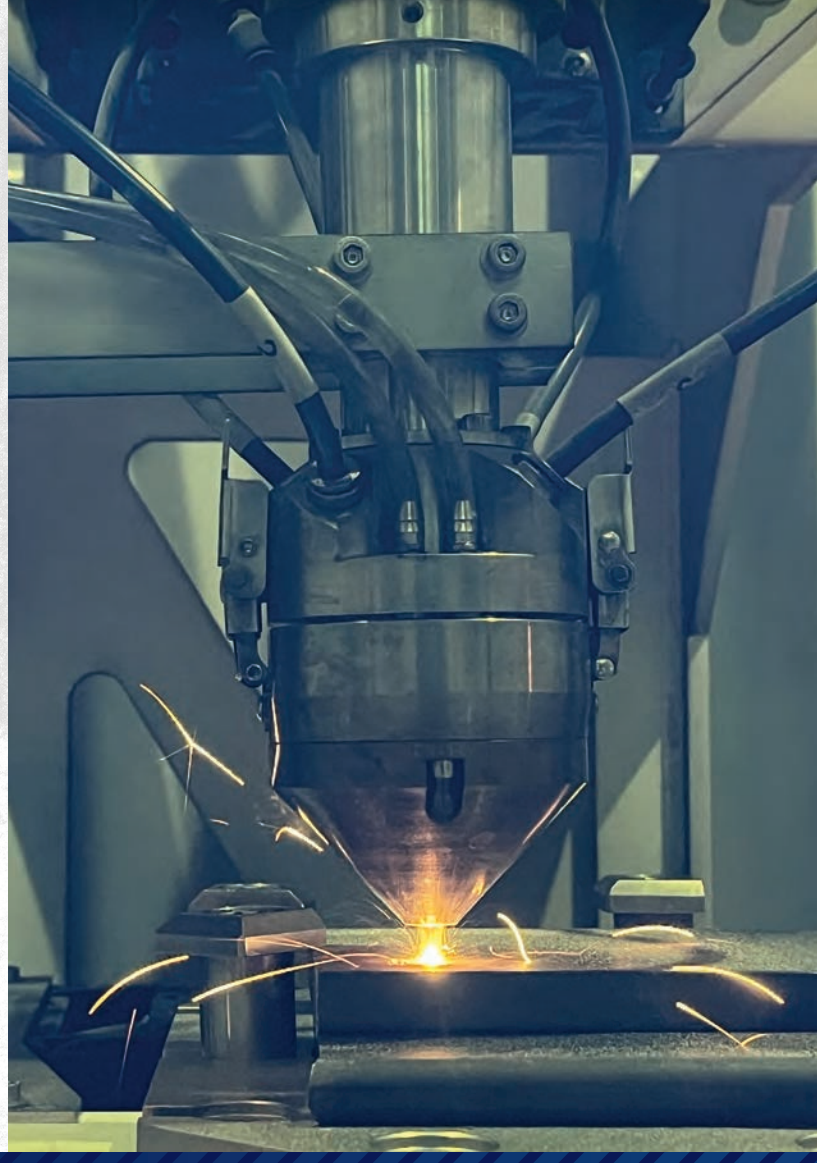
Materials engineering studies how materials are assembled, used and improved to meet societal needs. Choose a B.S. degree in Materials Engineering or our new Materials Engineering + Data Science path. Both will prepare you for careers tackling tomorrow's challenges in materials research.

## Why Illinois?

**Hands-On Learning »** Experience materials engineering through doing, not just watching. Work with polymers, metals and more in modern labs with cutting-edge equipment.

**Industry Impact »** Graduates work across automotive, aerospace, biomedical, energy, manufacturing and nanotechnology sectors at companies like SpaceX, Rolls Royce, TSMC and Samsung Electronics.

**Student Organizations »** Material Advantage and Keramos connect students with key professional and academic opportunities. Students also build friendships and create memories through social events.



**78%**
of undergraduates participate in internships or co-ops

**$84K**
average starting salary

**95%**
are employed or continue education upon graduation

**11:1**
student-to-faculty ratio

"My professors are inspiring and supportive, and their genuine passion for materials engineering and their students is apparent both in and out of the classroom."

*Kayla Huang*
Materials Engineering Undergraduate

## Research Opportunities

The Grainger College of Engineering is home to some of the most sought-after materials scientists and an array of leading-edge facilities for materials research. Our focus is on providing you with exciting research opportunities while translating findings into real-world applications.

**Approximately 50% of our graduates continue their educational path even further, pursuing masters and Ph.D. certifications.**

### World-Class Facilities

» Beckman Institute
» Illinois Quantum Information Science and Technology Center
» Materials Research Laboratory
» Illinois Materials Research Science and Engineering Center
» Holonyak Micro and Nanotechnology Laboratory
» National Center for Supercomputing Applications

## Senior Design

In the materials engineering senior design course, you will explore real-world problems by searching for materials-based solutions. The capstone course will pair you and your classmates with department and industry mentors to apply your learning in materials engineering.

### Sponsored Projects

Capstone senior design projects benefit from a range of corporate sponsors covering a range of fields from microelectronics (Intel) to aerospace (Boeing, Toyota), energy (Chevron, Sandia National Laboratories) and infrastructure (Caterpillar, Nucor).

### Example Projects

» Material improvements in Baja racing
» Selection of advanced electrical materials for transmission lines
» Machine learning-assisted scanning electron microscopy (SEM) image segmentation
» Biodegradable alternatives to Styrofoam packaging
» Material improvements on athletic tape