



These are challenging and exciting times in which we live. Materials Science and Engineering is the perfect major to prepare you to contribute to building solutions for a better world. Engineered materials **impact our lives every day**. The development of new materials and the design of new devices and systems make possible the technologies that we enjoy. As a student in the Materials Science and Engineering (MatSE) program at Penn State, **you will join one of the premier materials departments in the world.**

Career Opportunities

Graduates with a bachelor of science (B.S.) in Materials Science and Engineering from Penn State are employed in all sectors of industry and in many national laboratories. Our graduates work for such noted companies as Owens Corning, United Technologies, Pratt and Whitney, Dow Chemical, 3M, Boeing, Cummins Diesel, ALCOA, Lockheed-Martin, IBM, Texas Instruments, ArcelorMittal, Bayer, US Steel, Motorola, TRW, Westinghouse, Xerox, and many others.



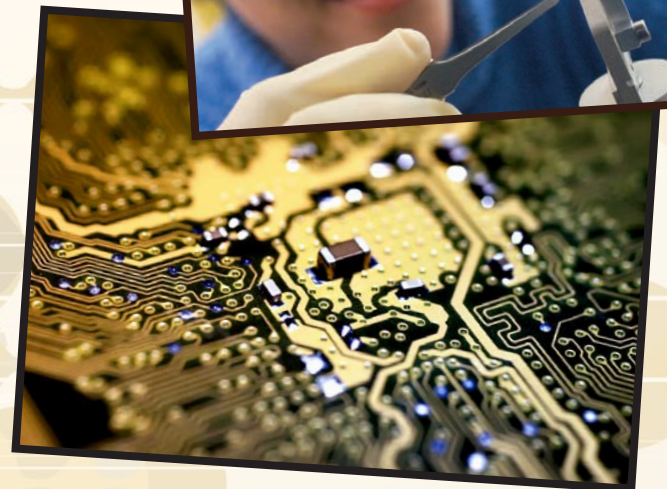
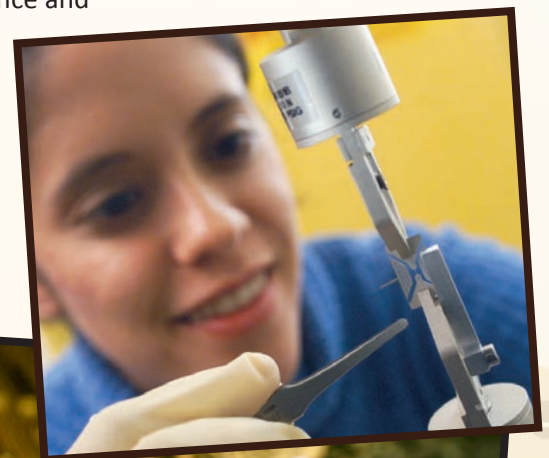
Growing up I always knew I wanted to get a PhD, but I wasn't sure if I had what it takes to do it. Being in the MatSE department not only encouraged my dream but also prepared me for everything that was to come. My advisor and the faculty encouraged my independent thinking and research. I was never afraid to ask questions or pursue undergraduate research because I always had the support of the MatSE department. The opportunities that I had were endless and my love for engineering was always nurtured. When I started my PhD in 2010 at Duke University in Mechanical Engineering and Materials Science, I was already trained to use devices in my MatSE courses that most of the other students had only read about. Because of the my undergraduate research experiences I felt confident enough to pursue a Master's in Electrical Engineering in tandem with my PhD work, and was awarded an MS this summer. As a MatSE alum, I have a strong foundation and an ongoing support from the MatSE department, which has been the key to my success at Duke University.
- Titi O. Shodiya

The Academic Program

Our curriculum provides the flexibility and agility to allow you to design your own specialized Materials Science and Engineering degree. Materials are the foundation of all other engineering disciplines. All industries depend on materials. As a consequence, majoring in Materials Science and Engineering prepares you for success in many fields such as energy, medicine, sustainability, electronics, communications, transportation and infrastructure, just to name a few.

Several MatSE specialization courses are offered during the junior and senior year. These courses are what allow you to tailor your academic career to fit your interests, to include: ceramics, metals, polymers, nanotechnology, energy, business, medicine/biomaterials, sustainability, etc.

In fact, with the kind of agility we offer you can obtain a pre-med engineering degree. In four years you could earn a materials science and engineering degree while also taking the courses required by medical schools for admission. Another benefit to our curriculum is that the specialization courses can be in an advanced subject of your choice. Your materials degree enables you to easily incorporate a minor into your degree. Popular minors for Materials Science and Engineering majors include: chemistry, physics, math, bio-materials, engineering entrepreneurship, energy engineering, energy, business and finance, sustainability leadership, nanotechnology, etc.



Research

Penn State has one of the country's largest and finest research efforts in materials and the Materials Science and Engineering Department is ranked within the top in both undergraduate and graduate studies. The MatSE faculty have considerable experience in mentoring undergraduate students conducting research. In fact, many of our students join research groups during their freshmen year. Finally, we offer our own International Internship in Materials Program (www.matse.psu.edu/iim), where you could spend a semester abroad performing cutting edge research at an internationally recognized university in Europe or Asia.

"I participated in the International Internship in Materials (IIM). The IIM program gives you a chance to explore another culture while gaining valuable internship experience that will really set you apart from other students. While in Japan, I made lifelong friends from all over the globe while performing cutting-edge materials science research and had lots of fun doing it!"
-Ryan Mannino



Scholarships

You will begin your materials education early in your academic career. The Department of Materials Science and Engineering offers scholarships beginning your freshman year (minimum GPA of 3.0). Our students are also eligible for numerous scholarships through the College of Earth and Mineral Sciences and University and professional societies.



For More Information:

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PennState
College of Earth
and Mineral Sciences

**Department of Materials
Science and Engineering**