Materials Science and Engineering

At UW-Eau Claire

Every day we come into contact with hundreds of manufactured objects that are essential to modern life: vehicles, clothes, machines in our homes and offices, sport and leisure equipment, computers and phones, and medical technology. Everything we see and use is made from materials derived from the earth: metals, polymers, ceramics, semiconductors and composites. Materials Science and Engineering majors study structure, properties and behavior of all materials, develop processes to manufacture useful products from them, and research environmentally friendly materials.

Fast-growing industry

Materials are evolving faster today than any time in history, enabling scientists and engineers to improve the performance of existing products and to develop innovative technologies that will enhance every aspect of our lives. Materials Science and Engineering has become a key discipline in the competitive global economy and is recognized as one of the technical disciplines with the most exciting career opportunities.

Great faculty

Our outstanding faculty are proud of the individual attention they give their students. You’ll learn in small class settings and get lots of one-on-one attention from professors who inspire learning and truly want you to succeed. Faculty draw from several areas of expertise, including, chemistry, physics, materials science, and have experience in polymer engineering, metallurgy, industry and working with superconductors.

Great facilities

Students have the opportunity to use excellent on-campus state-of-the-art materials science facilities and microscopes (optical and electron), as well as instruments for determining the elemental makeup of a sample.

Research opportunities

Students have summer and academic year research opportunities at UW-Eau Claire and other locations across the United States.

“...The dedicated faculty in Materials Science have encouraged me to explore my interests in the classroom and research lab. The hands-on experience with the advanced instrumentation has given me the skills to succeed after graduation.”

— Elizabeth

Places our grads go:

- Graduate student, Washington State University, Pullman, WA
- Lab Analyst-3M, Card Materials Business, Maplewood, MN
- Materials Scientist, Fiberstar Bio, Eau Claire, WI
- GMP Scientist, Pharmaceutical Product Development, Inc., Madison, WI

Our graduates

Typical positions held by materials science graduates include materials science engineer, technical journalism, forensic science, technical sales and marketing, research and development, design and manufacture, quality assurance, production management; continued education at the graduate level.

Suggested freshman curriculum

Intro to Engineering
Precalculus and Calculus I
Chemical Principles or General Chemistry I and II
University Physics I and II
General Electives
University writing requirement— depending on placement exam.
For test-out options, see uwec.edu/Blugoldseminar/testout.
Wellness or Physical Activity

Unusual and unique

The field of materials science and engineering is the study of "condensed matter" (that is, solids and liquids), and how that understanding can be applied to fabricating devices and structures of utility. A relatively young discipline, materials science is an outgrowth of two traditional areas: the study of matter (and its structure-property relationship) that originated in chemistry and physics and developments in various "materials" engineering fields (notably, microelectronics, metallurgy, and plastics).

Materials Science and Engineering is a focused and well-defined degree program, whereas the Materials Science degree offers more flexibility to specialize in other fields.

Materials Science and Engineering comprehensive major

- The Materials Science and Engineering major focuses more heavily on Engineering coursework and prepares students to start a career in engineering
- Courses will be available Fall 2016 and the degree will require 128 credits

Materials Science comprehensive major (requires no minor)

- Offers a variety of emphases including Nanoscience, Applied Materials Science, Entrepreneurship and Liberal Arts.

Majors

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