

# Materials Science and Engineering

The growth and development of the Industrial Age and the more recent Information Age are driven by the manufactured, commonplace objects that we encounter every day. Everything we see and use from clothes and cell phones to vehicles and medical equipment are made from material. The relatively new field of materials science and engineering is the study of the fundamental structure and properties of these materials and how fabrication processes affect them.

Blugolds majoring in materials science and engineering apply fundamental understanding in the design of manufactured components and systems, and explore their performance. Along with a solid foundation in the sciences, Blugolds also develop skills in communication, problem solving, critical thinking and teamwork as a part of their education. As a result, graduates are prepared to be successful in post-baccalaureate opportunities and future careers.

## Major

Comprehensive major (no minor required)

- **Materials Science and Engineering**

## Where you'll find our grads

- Quality Engineer
- Development Scientist
- Process Engineer
- Materials Engineer

## Prepared for Success

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.

## Why UW-Eau Claire

### Faculty Experts

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 super conductors.

### Internships

Material Science and Engineering majors are encouraged to enrich their study through internships. Faculty members have developed strong working relationships with materials-related industry in the Chippewa Valley that have lead to unique internships, which often take place over the summer, that can also be applied towards your degree.

### Innovative Facilities

Students have the opportunity to use excellent on-campus state-of-the-art materials science facilities including instrumentation housed in the Materials Science Center. Instrumentation includes: a scanning Auger nanoprobe, a transmission electron microscope, a scanning electron microscope, an x-ray photoelectron spectrometer, a scanning tunneling electron microscope, atomic force microscopes, a high resolution inductively coupled plasma mass spectrometer, x-ray diffractometer, x-ray fluorescence spectrometer and a molecular beam epitaxial growth chamber to name a few!

## Contact Info:

Marc McEllistream, Materials  
Science + Engineering  
Phillips Science Hall 177  
101 Roosevelt Avenue  
715-836-5504 |  
matsciengineering@uwec.edu

The Power of  AND

University of Wisconsin  
**Eau Claire**

# Materials Science and Engineering (continued)

## First-Year Suggested Curriculum

- Intro to Nanoscience and Materials Science
- Precalculus or Calculus I
- Chemical Principles of General Chemistry I and II
- University Physics I
- Social Science/Humanities Elective
- University writing requirement — depending on placement exam