



## What can I do with my Major?

# MATERIAL SCIENCE & ENGINEERING

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### SAMPLE JOB TITLES

Visit [O\\*Net](#) and conduct an *Occupation Quick Search* of each job title to learn more about that career path.

[Materials Engineer](#)  
[Materials Scientist](#)  
[Engineering Teacher, Postsecondary](#)  
[Industrial Engineering Technologist](#)  
[Industrial Engineering Technician](#)  
[Manufacturing Engineer](#)  
[Metallurgist](#)  
[Applications Engineer](#)  
[Welding Engineer](#)  
[Tool Design Engineer](#)  
[Material and Process Engineers](#)  
[Corrosion and Material Engineering Specialists](#)

### UCONN RESOURCES

[Department of Chemical, Materials, and Biomolecular Engineering](#)  
[Engineering Student Leadership Council](#)  
[Tau Beta Pi](#)  
[Society of Hispanic Professional Engineers](#)  
[National Society of Black Engineers](#)  
[Women in Math, Science and Engineering](#)  
[Society of Women Engineers](#)

### OTHER RESOURCES

[Materials Research Society](#)  
[Society of Mining, Metallurgy and Exploration](#)

### OVERVIEW OF MAJOR

The Materials Science and Engineering program prepares students for a variety of jobs, teaching them production processing, characterization, selection, and design of materials. Materials are important to every aspect of engineering, making the study of materials an important part of creating many of the items used today. In this major you learn to design and develop materials from metals and other resources used for the creation of new products, as well as learn the processes used to create new materials and alloys. In this major one learns to examine and assess materials at different levels in order to determine their usefulness, as well as how to create new materials.

### NATURE OF WORK

A materials engineer uses analysis of materials in order to try and improve designs of products; for example, one might work to make a golf club lighter but stronger. Material engineers test and evaluate new materials; they design materials as well. They work to improve strength, corrosion resistance, and fatigue resistance. There are many career options for Materials Science and Engineering majors, depending on what they decide to specialize in. In addition to working with metals, materials engineers work with plastics, ceramics, semiconductors, and composites.

