

MATERIALS SCIENCE GRADUATE MINOR

This program is available at the following location:

- Corvallis

The discipline of materials science is inherently interdisciplinary, involving fundamental aspects of chemistry, physics, biology, geoscience, agricultural science, mathematics, and engineering.

Reflecting this characteristic, the Materials Science Program at Oregon State University, initiated in the 1980s, is distributed over nine departments spanning three OSU colleges. This allows students to earn Masters and PhD degrees in Materials Science in many different areas of concentration, including all classes of materials, and in a wide range of materials behavior. The coursework requirements are extremely flexible to allow students to tailor their program of study to directly support their research activities.

Contact Information

For more information, visit the program website (<https://engineering.oregonstate.edu/academics/programs/materials-science/graduate>).

Minor Code: 3200

Upon successful completion of the program, students will meet the following learning outcomes:

Masters

- Conduct research or produce some other form of creative work.
- Demonstrate mastery of subject material.
- Conduct scholarly or professional activities in an ethical manner.

PhD

- Produce and defend an original significant contribution to knowledge.
- Demonstrate mastery of subject material.
- Conduct scholarly activities in an ethical manner.

Masters Minor

Code	Title	Credits
Required Core		
MATS 570	STRUCTURE-PROPERTY RELATIONS IN MATERIALS	4
Electives		
Select a minimum of 11 credits from the following:		11
CH 616	CRYSTALLOGRAPHY AND X-RAY DIFFRACTION	
CHE 611/ECE 611	ELECTRONIC MATERIALS PROCESSING	
ECE 518	SEMICONDUCTOR PROCESSING	
MATS 545	WELDING METALLURGY	
MATS 555	EXPERIMENTAL TECHNIQUES IN MATERIAL SCIENCE	
MATS 571	ELECTRONIC PROPERTIES OF MATERIALS	
MATS 578	THIN FILM MATERIALS CHARACTERIZATION AND PROPERTIES	
MATS 582	RATE PROCESSES IN MATERIALS	
MATS 584	ADVANCED FRACTURE OF MATERIALS	
MATS 588	COMPUTATIONAL METHODS IN MATERIALS SCIENCE	
MATS 659	PRINCIPLES OF TRANSMISSION ELECTRON MICROSCOPY	

OC 528	MICROPROBE ANALYSIS	
Total Credits		15

PhD Minor

Code	Title	Credits
Required Core		
MATS 570	STRUCTURE-PROPERTY RELATIONS IN MATERIALS	4
Electives		
Select a minimum of 14 credits from the following:		14
CH 616	CRYSTALLOGRAPHY AND X-RAY DIFFRACTION	
CHE 611/ECE 611	ELECTRONIC MATERIALS PROCESSING	
ECE 518	SEMICONDUCTOR PROCESSING	
MATS 545	WELDING METALLURGY	
MATS 555	EXPERIMENTAL TECHNIQUES IN MATERIAL SCIENCE	
MATS 571	ELECTRONIC PROPERTIES OF MATERIALS	
MATS 578	THIN FILM MATERIALS CHARACTERIZATION AND PROPERTIES	
MATS 582	RATE PROCESSES IN MATERIALS	
MATS 584	ADVANCED FRACTURE OF MATERIALS	
MATS 588	COMPUTATIONAL METHODS IN MATERIALS SCIENCE	
MATS 659	PRINCIPLES OF TRANSMISSION ELECTRON MICROSCOPY	
OC 528	MICROPROBE ANALYSIS	
Total Credits		18

Minor Code: 3200