

Materials Science and Engineering (Minor)

The Materials Science and Engineering minor is available to and useful for students in any engineering discipline, as well as students from chemistry, physics, and textiles. It is designed to provide students with the fundamentals necessary for advanced study in Materials Science and Engineering and/or employment in materials-related fields.

Completion of the MSE minor requires a minimum of 15 credit hours, which includes 9 credits of required courses and at least 6 credits of elective courses.

Admission

To be admitted to the program, a student must have a GPA of at least 2.0 and a C or better in MSE 200 (<http://catalog.ncsu.edu/search/?search=mse+200>) or MSE 201 (<http://catalog.ncsu.edu/search/?search=MSE+201>).

Application for admission to any University minor program is now available via MyPack Portal. Admission will be based on the student's academic record, and in most cases no longer requires departmental review. Go to Add a Minor (<https://studentservices.ncsu.edu/your-degree/coda-home/add-a-minor/>) to apply. The minor must be completed no later than the semester in which the student expects to graduate from their degree program.

To see more about what you will learn in this program, visit the Learning Outcomes website (<https://apps.oirp.ncsu.edu/pgas/>)!

Contact Person

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MSE Website (<https://www.mse.ncsu.edu/>)

Effective Date: 1/2013

SIS Code: 14MTM

Plan Requirements

The Materials Science and Engineering Minor includes a three-hour introductory course, six hours of required courses and six hours of electives selected from a list of courses covering a wide variety of materials science and engineering topics. To apply for the MSE Minor, a minimum overall GPA of 2.0 is required. A grade of C or better is required in MSE 200 Mechanical Properties of Structural Materials or MSE 201 Structure and Properties of Engineering Materials, and a minimum cumulative GPA of 2.0 must be maintained in the Minor courses.

Code	Title	Hours	Counts towards
Required Courses			
Select one of the following:		3	

MSE 200	Mechanical Properties of Structural Materials	
MSE 201	Structure and Properties of Engineering Materials	
MSE 300	Structure of Materials at the Nanoscale	3
MSE 301	Introduction to Thermodynamics of Materials	3
Elective Courses		
Select six credits of the following:		6
MSE 255	Experimental Methods for Structural Analysis of Materials	
MSE 320	Introduction to Defects in Solids	
MSE 335	Experimental Methods for Analysis of Material Properties	
MSE 355	Electrical, Magnetic and Optical Properties of Materials	
MSE 360	Kinetic Processes in Materials	
MSE 370	Microstructure of Inorganic Materials	
MSE 380	Microstructure of Organic Materials	
MSE/NE 409	Nuclear Materials	
MSE 455	Polymer Technology and Engineering	
MSE 460	Microelectronic Materials	
MSE 465	Introduction to Nanomaterials	
Total Hours		15