Materials Science and Engineering, Minor

ESMSEMIN

Description

The materials science and engineering minor is designed to give science and engineering majors an in-depth understanding of materials, including their structure, processing, properties and performance.

At a Glance

- **College/School:** Ira A. Fulton Schools of Engineering
- **Location:** Tempe campus

2018 - 2019 Major Map
Major Map (Archives)

Program Requirements

Students are required to take five courses and one lab (minimum of 16 credits), listed below:

**Required Courses -- 12 credit hours**

- MSE 250: Structure and Properties of Materials (3)
- MSE 355: Structure and Defects (3)
- MSE 3** Elective or MSE 4** Elective (6)

**Materials-related Lab Course -- 1 credit hours**

- MSE 356: Structures, Properties, and Defects Lab (1)
- MSE 421: Physical Metallurgy Laboratory (1)
- MSE 451: Introduction to Materials Characterization Lab (1)

**Materials-related Course -- 3 credit hours**

- BME 318: Biomaterials (4)
- CEE 353: Civil Engineering Materials (4)
CHM 471: Solid-State Chemistry (3)
EEE 352: Properties of Electronic Materials (4)
EEE 436: Fundamentals of Solid-State Devices (3)
MSE 3** Elective (3)
MSE 4** Elective (3)
PHY 481: Materials Physics I (3)

Depending on a student's undergraduate program of study, prerequisite courses may be needed in order to complete the requirements of this minor.

**Enrollment Requirements**

**GPA Requirement:** 2.75 GPA

**Majors Ineligible to Add This Minor:** BA in interdisciplinary studies with a concentration in materials science and engineering

**Other Enrollment Requirements:** Students need sophomore status and a minimum of a 2.75 ASU and transfer GPA to enroll in the materials science and engineering minor. To earn the minor, students must receive a 2.50 GPA in all minor courses. Students adding the minor will also need to complete MAT 265 (MAT 270), MAT 242 (MAT 342 or 343), and CHM 114 or CHM 113 and 116.

Interested students should consult with a School for Engineering of Matter, Transport and Energy advisor to verify eligibility and to review all courses required for the minor. To schedule an advising appointment, students should contact the SEMTE advising office at (480) 965-2335 or semte@asu.edu.

Current ASU undergraduate students may pursue a minor and have it recognized on their ASU transcript at graduation. Students interested in pursuing a minor should consult their academic advisor to declare the minor and to ensure that an appropriate set of courses is taken. Minor requirements appear on the degree audit once the minor is added. Certain major and minor combinations may be deemed inappropriate by the college or department of either the major program or the minor. Courses taken for the minor may not count toward both the major and the minor. Students should contact their academic advisor for more information.

**Contact Information**

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