

MATERIALS SCIENCE & ENGINEERING, CERTIFICATE

The College of Engineering offers several minors for students at The University of Toledo. These minors are recommended for students who want to enhance their academic programs with engineering-related course work and are intended to allow students to develop expertise in a discipline outside their majors. Students taking courses in these minors must meet course prerequisite requirements. Students should contact advisors in the College of Engineering for additional details about the course requirements of minors and contact advisors in their home college to determine how the minors will fit into their degree curriculum.

Note that per University of Toledo policy, minors cannot be declared by students in the same major as a given minor since at least 12 hours of the minor must be distinct from any credit hours used to fulfill any major the student is pursuing.

Code	Title	Hours
To obtain this certificate, the students will have to complete 12 credit hours with the following four courses.		
MIME 4350	Advanced Ceramics	3
MIME 4370	Advanced Materials for Automotive Structures	3
MIME 4380	Engineering Polymers and Rubbers	3
MIME 4390	Failure Analysis of Materials	3
Total Hours		12

- PLO 1. an ability to identify, formulate, and solve complex engineering problems by applying the properties of materials.
- PLO 2. an ability to apply engineering design and produce different devices that meet specified needs based on different materials.
- PLO 3. an ability to recognize ethical and professional responsibilities in materials science and engineering related to engineering manufacturing.
- PLO 4. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions related to materials science and engineering.
- PLO 5. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.