

# METALLURGICAL & MATERIALS ENGINEERING, MINOR

Minor in Metallurgical & Materials Engineering

## Minors for College of Engineering Students

A student majoring in an engineering program may earn a minor in engineering or in another division of the University. Examples are chemistry, mathematics, and physics, which are offered by the College of Arts and Sciences, and the general business minor offered by the Culverhouse College of Business. Required courses and electives needed for an engineering or computer science degree may also count toward the minor. For additional information about minors and the courses required in them, see the appropriate sections of the undergraduate catalog.

## Academic Policies for Minors

Academic criteria for a minor are determined by the division and program offering the minor. This includes prerequisite rules, minimum GPA and any academic standards. When a minor is optional, a student can withdraw from the minor at any time. Any minor attempted by a College of Engineering student must be completed at the time a Bachelor of Science degree is awarded. A student's graduation will not be delayed to complete an optional minor unless the student notifies the Engineering registrar prior to the degree certification deadline. Each College of Engineering department program should maintain a list of minor courses in their programs, together with effective dates, even if all courses in a program can be used in the minor.

## Minor in Engineering for Other Students

Two types of minors in the College of Engineering are available to students enrolled in other divisions of the University. The minors require a minimum of 18 hours in engineering courses. The Type 1 minor is a specialized program in any of the College's engineering disciplines. Course requirements and advising are available from the appropriate department head, who will appoint an advisor for a student desiring this type of minor. The Type 2 minor is a general minor in engineering. The associate dean of engineering appoints an advisor for a student pursuing a Type 2 minor, which requires a minimum of 18 hours in courses chosen from a list available from the associate dean for academic programs.

An engineering student who is not an MTE major can earn a B.S. minor in Metallurgical & Materials Engineering by completing the following requirements. The student must complete the two (2) MTE minor core courses and **at least four (4)** of the MTE minor elective core classes. A student can petition to substitute only one (1) of the MTE minor elective core classes with an equivalent course from another department (listed below) thereby reducing the total number of additional MTE minor core electives to **three (3)**. A letter grade of a "C" or higher in each course is required for the course to count towards the MTE minor. A student should apply for the MTE minor prior to achieving senior standing in order to have sufficient time to complete all requirements.

The student must complete **19 to 21 hours** of MTE approved courses or their equivalents. Interested students may find that several of these MTE courses meet his/her department's required or technical electives options.

Metallurgical & Materials Engineering Minor		Hours
<b>Required Courses:</b>		
MTE 271	Engr Matls: Struc Prop	3
MTE 373	Physical Metallurgy	4
<b>Elective Core (select at least 4):</b>		
MTE 353 or	Transport	3

CHE 324	Transport Phenomena	
MTE 362 or	Thermodynamics Of Materials	4
CHE 255	CHE Thermodynamics	
MTE 380 or	Synthesis, Proc & Mfg Matls.	3
ME 383	Modern Manufacturg Processes	
MTE 416	Fund. of Metal Casting	4
MTE 439	Metallurgy Of Welding	3
MTE 445	Materials Engineering Design II (W)	3
MTE 481	Analy Methods For Matls	4
MTE 487	Corrosion	3