

# MFG 160 : MATERIALS ENGINEERING

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## Transcript title

Materials Engineering

## Credits

2

## Grading mode

Standard letter grades

## Total contact hours

60

## Lab hours

60

## Prerequisites

instructor approval.

## Recommended preparation

MFG 100.

## Course Description

A continuation of Quality Assurance topics focused on materials. Includes shear, hardness, tensile and compression testing and other material analyzing techniques.

## Course learning outcomes

1. Student will explain why heat-treating metals enhances desired properties.
2. Student will recognize equilibrium diagrams.
3. Student will differentiate between alloy steel properties.
4. Student will differentiate between non-ferrous and ferrous alloy materials.
5. Student will identify and properly apply plastic materials to solve engineering related problems.