Copper Modules

Cu1: Copper Casting Alloys

In this module, we will explore the Unified Numbering System (UNS) of copper; identify the different types of copper alloys; and identify the different alloying elements in copper castings. By the end of this module, you will be able to explain the UNS for copper and discuss the role of alloying elements in copper castings. Estimated module time is 45 minutes. CEU units awarded: 0.1 CEU units.

Cu2: Copper Casting Production

In this module, we will explore the different melting and molding methods used at copper metalcasting facilities. This module will also look at copper safety practices. By the end of this module, you will be able to identify common melting methods and identify common molding methods for copper alloys. Estimated module time is 1 hour. CEU units awarded: 0.1 CEU units.

Cu3: Copper Casting Applications

In this module, we will explore numerous mechanical and physical properties regarding copper alloys; explore further into the different copper families; and use that information to decide which copper alloy to choose for three real world examples. By the end of this module, you will be able to describe the principle properties of copper and its uses and describe and identify copper alloys suited to specific applications. Estimated module time is 1 hour. CEU units awarded: 0.1 CEU units.

Cu4: Copper Casting Defects: Shrinkage

In this module, we will define shrinkage porosity and identify the following: the various shrinkage porosity characteristics and classification, which consists of size, distribution, location, and performance. By the end of this module, you will be able to define macro and micro porosity shrinkage copper defects and identify two control methods to reduce the defects. Estimated module time is 1 hour. CEU units awarded: 0.1 CEU units.