Bemidji State University

TADD 3557: TAD LAB: Molding & Casting

A. COURSE DESCRIPTION
   Credits: 2
   Lecture Hours/Week: 0
   Lab Hours/Week: 0
   OJT Hours/Week: *.*
   Prerequisites: None
   Corequisites: None
   MnTC Goals: None
   In this course, students will learn how to make molds that will allow them to cast multiples of practically any object using a variety of materials. Students will gain a solid understanding of fundamental techniques that will empower them to tackle almost any mold-making project. Students will discover what undercuts are and how to recognize them on their models; they will determine what kind of mold and mold material to use and how to build and adequately seal mold walls. Mold and cast your way to a customized world!

B. COURSE EFFECTIVE DATES: 08/20/2022 - Present

C. OUTLINE OF MAJOR CONTENT AREAS
   1. Lab and product Safety
   2. Various types and styles of silicone rubbers used for mold creation
   3. Various types and styles of casting resins (urethane plastics/rubbers and epoxies)
   4. Molding and Casting Processes and techniques
   5. Materials used to implement the molding and casting process

D. LEARNING OUTCOMES (General)
   1. demonstrate molding and casting processes.
   2. create molds for product reproduction.
   3. demonstrate vacuum and de-airing of molding & casting materials.
   4. utilize Safety Data Sheets.
   5. demonstrate lab and personal safety.

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies
   None

F. LEARNER OUTCOMES ASSESSMENT
   As noted on course syllabus

G. SPECIAL INFORMATION
   None noted