Bemidji State University

TADD 3220: Conceptual Prototype Engineering

A. COURSE DESCRIPTION
   Credits: 2
   Lecture Hours/Week: 0
   Lab Hours/Week: 0
   OJT Hours/Week: *.*
   Prerequisites: None
   Corequisites: None
   MnTC Goals: None
   This course will explore the various steps needed to create a concept/mockup prototype model. Models are design tools and are employed greatly in all aspects of industry. This creative process will include brainstorming, research, sketching, and creation of the model. It aids clients in visualizing and understanding their products' characteristics prior to creation of a high-level prototype. The course will have an emphasis on shop safety, project management and professionalism.

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

C. OUTLINE OF MAJOR CONTENT AREAS
   1. Introduction to model construction processes.
   2. Overview of the various construction materials used in industry.
   3. Quality presentation of exercises and finished designs.
   5. Collaborate in group projects.
   6. Professionalism and safety related to model environment.

D. LEARNING OUTCOMES (General)
   1. create a mockup model of a design concept utilizing design processes.
   2. demonstrate sketching with dimensional properties to communicate ideas.
   3. prepare presentation design ideas for peer evaluation.
   4. 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