

Bemidji State University

TADT 2465: Engineering Technology Project II

A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: *.*

Lab Hours/Week: *.*

OJT Hours/Week: *.*

Prerequisites: None

Corequisites: None

MnTC Goals: None

This is a project based course that builds on topics covered in Engineering Project 1. Students will be introduced to electrical safety, electrical schematics, electrical circuits, various electrical components, and electrical measuring equipment. Students are required to demonstrate competency in applying fabrication and analysis techniques and setting performance specifications, meeting these specifications, and documenting their designs. Projects are presented at the end of the semester. Prerequisite: PHYS 1102, TADT 1220, TADT 1460 and TADT 1464.

B. COURSE EFFECTIVE DATES: 08/22/2016 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Applications of 2D CAD and Manufacturing
2. Decision Analysis
3. Electrical Safety
4. Electrical circuits and schematics
5. Functional Analysis
6. Soldering

D. LEARNING OUTCOMES (General)

1. . be able to recognize, evaluate, and control hazards associated with electrical work.
2. . be able to incorporate various forming and separating processes in their project designs.
3. . be able to build basic electrical devices by applying correct soldering and troubleshooting techniques.
4. . be able to apply their knowledge of electricity, magnetism, and/or DC circuits to project designs.
5. . be able to incorporate 2D manufacturing, such as laser cutting, in their design projects.
6. . be able to apply their knowledge of 2D CAD and create orthographic and isometric views of their design projects.

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted