MFGT 2555: Electrical Design for Mechatronics Systems

A. COURSE DESCRIPTION

Credits: 2  
Lecture Hours/Week: 2  
Lab Hours/Week: 0  
OJT Hours/Week: *.*  
Prerequisites: None  
Corequisites: None  
MnTC Goals: None  

This course provides the learner with an introduction to electrical design in a Computer-Aided Design (CAD) environment as it applies to pneumatics, hydraulics, and automation systems. It provides learners with the theory and application of CAD to electrical designs, as well as the development and navigation of large-scale electrical designs.

B. COURSE EFFECTIVE DATES: 03/03/2022 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. AutoCAD Electrical Software introduction  
2. Circuit design using AutoCAD Electrical Software  
3. Developing large scale machinery electrical designs  
4. Electrical design layouts  
5. Navigation of large-scale machinery electrical designs  
6. Electrical design for reusability

D. LEARNING OUTCOMES (General)

1. Gain the ability and be able to demonstrate the usage of AutoCAD Electrical as it applies to Mechatronics Systems.  
2. Increase understanding of machinery print packs.

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

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted