DET1204 - Mechanical Drawing III

Credits:	4 (2/2/0)
Description:	The objective of this course is to develop students' use and knowledge of mechanical fasteners and welding symbols, their proper application on weldment drawings, and documentation of assemblies and sub-assemblies. Students also develop an understanding of tolerancing types and rules, including fundamental knowledge of geometric dimensioning and tolerancing symbols, datums and material conditions.
Prerequisites:	• DET1104 • DET1106
Corequisites:	
Pre/Corequisites*:	
Competencies:	1. Identify types of permanent fasteners, their properties and application. 2. Identify types of temporary fasteners, their properties and application. 3. Create and apply welding symbols to weldment drawings. 4. Identify weld joint types and applications. 5. Analyze fastener requirements for various types of assemblies and sub-assemblies. 6. Generate and accurately document a bill of material for assemblies and sub-assemblies. 7. Generate and accurately document engineering change orders. 8. Understand and apply tolerancing applications for bilateral, unilateral, deviation and limits tolerances. 9. Apply appropriate datums for surfaces, lines and points following geometric dimensioning and tolerancing standards. 10. Explain primary, secondary and tertiary datums. 11. Define and understand the application of maximum material condition, least material condition and the definition of regardless of feature size. 12. Analyze and apply the principles of form, position, location, orientation and run-out tolerances.
MnTC goal areas:	None

**Can be taking as a Prerequisite or Corequisite.*