Course Title: Manufacturing Processes & Precision Measuring
Prefix and Course Number: CAD 138

Course Learning Outcomes:
By the end of this course, a student should be able to:

- Have a thorough understanding of such manufacturing techniques as:
  casting processes
  hot and cold working
  powder metallurgy
  machining methods
  joining processes

- Demonstrate knowledge and application of both manual and electronic precision measuring tools

Course Outline:
I. Primary Manufacturing Processes
   a. Casting Processes
   b. Hot and Cold Working
   c. Machining Methods
   d. Joining Processes
   e. Fabrication/Jigs & Fixture

II. Secondary Manufacturing Processes
   a. Powder Metallurgy
   b. Plastics
   c. Corrosion and Protection

III. Dimensions, Tolerance, and Precision
   a. Reading Engineering Drawings for Dimensions and Tolerances
   b. Determine Measuring Tools and Units Required for Fabrication Methods

IV. Instrument Reading
   a. Non-Precision Measuring Instruments
   b. Precision Measuring Instruments and gages
   c. Electronic/Digital Measuring Equipment