CAD TECHNICIAN – MECHANICAL DESIGN AND FABRICATION – LEVEL 1 – CERTIFICATE OF ACHIEVEMENT

TOP Code:

0953.40
The curriculum prepares students to read and create technical graphics and 3-dimensional digital prototypes for the design of mechanical components within a fabrication process. Technologies utilized in the program include parametric solid modeling CAD systems to generate 3D models, technical graphics and analysis, presentation renderings, and to produce laser cut and 3-D printed mechanical prototypes. A CAD technician supports design & fabrication activities with knowledge of sustainable production processes and industry standards. Job functions include CAD modeling, geometric problem solving, presentations of design reviews, and collaborating in design projects. Interpretation of engineering drawings is based on American Society of Mechanical Engineers (ASME) Y14 standards.

Certificate of Achievement is awarded upon completion of all required courses with a grade of C or better.

Program Outcomes

- Communicate effectively using technical, graphical, oral and written formats.
- Demonstrate appropriate mastery of industry technical graphic standards, Computer-Aided Design techniques, sustainable technology and rapid prototyping and additive production technologies in the design of components, systems or processes of mechanical design.
- Demonstrate appropriate mastery of industry technical graphical standards in the analysis of technical graphics and digital prototypes of mechanical design components, systems or processes.
- Collaborate effectively in teams to produce comprehensive design technology solutions to mechanical and manufacturing processes and systems.

Requirements for the Certificate of Achievement

Code	Title	Units
DT 008A	INTRODUCTION TO DIGITAL DESIGN AND FABRICATION	3
or ENGR 002	ENGINEERING GRAPHICS	
DT 008B	INTERMEDIATE DIGITAL DESIGN AND FABRICATION	3
DT 008C	ADVANCED SYSTEMS DESIGN AND FABRICATION	4
DT 030	SUSTAINABLE TECHNOLOGIES	3
Total Units		**13**

This Certificate of Achievement is not eligible as a major for an Associate Degree.