

OET 012– Computer Aided Drafting/Design (CAD)

<p>Credit Hour Recommendation: 3 Semester Hours</p>
<p>Pre-Requisite: Engineering Drawing or Engineering Graphics (Prerequisite of Engineering Drawing or Engineering Graphics shall be waived if the course appears to address these concepts within the course.)</p>
<p>Related TAG: Mechanical/Manufacturing Engineering Technology</p>
<p>General Course Description: This course introduces the student to the fundamental concepts used in creating computer-generated drawings using a commercial CAD software. Topics include coordinate systems, construction, text insertion, editing techniques, views, projections, display control, inquiry techniques, dimensioning and use of part libraries in the creation of drawings and assemblies. Bill of materials will be generated from multi-sheet assemblies. Students will develop 3D objects using primitive solids and Boolean operations. Learning outcomes are achieved through various in class and laboratory experiences.</p>
<p>Student learning outcomes marked with an asterisk (*) are essential and must be met.</p>
<p>1. Demonstrate proficiency of a commercial CAD system based on ASME (ANSI) Y14.5M or equivalent ISO standards.*</p>
<p>2. Create working drawings using orthographic projections, section views, and auxiliary views.*</p>
<p>3. Create detail drawings that include dimensions and tolerances.*</p>
<p>4. Create assembly drawings including bill of materials.*</p>
<p>5. Demonstrate a basic knowledge of 3D modeling.*</p>
<p>Note: The original OET012 course has been updated to focus on the intent of a CAD course, while allowing the use of either 2D or 3D CAD packages. OET021 3D Modeling has been eliminated.</p>

**MECHANICAL/MANUFACTURING ENGINEERING TECHNOLOGY TAG: CAD
FACULTY PARTICIPANTS
August-September 2016**

Name	Institution
Dan Burklo (Lead)	Northwest State Community College
Sudershan Jetley	Bowling Green State University
Shane Bendele	Columbus State Community College
Thomas Looker	Edison State Community College
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