

Board Approval Date: June 2012

Course Title: Engineering, Drafting and Design: CADD I

Credit / Hours: Semester Course (.5 Credit)

Course Description:

In this course students will learn to use Auto Desk Inventor, a 3-D modeling software package. After completing the hardware/software orientation, students will learn to read and create several types of engineering technical drawings. Students will design 3-D objects using the CADD software and then may create their object using a Computer Numerical Control (CNC) machine. Students will design both individual components and larger assembly drawings consisting of numerous individual parts. This course is aligned to technology standards and provides students with the opportunity to examine the importance of STEM (Science, Technology, Engineering, Math) as it relates to the world of manufacturing and design.

Learning Activities / Modes of Assessment:

Create 3-D engineered parts
Design and create 3-D assemblies consisting of multiple parts
Project Assessments with Rubrics

Instructional Resources:

Autodesk Design Academy Software
Appropriate Internet sites
Technical Drawing 12th Edition, Pearson Education, 2003.

Course Pacing Guide

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Course Unit (Topic)	Length of Instruction (Days/Periods)
1. Intro to 3-D Drawing	12 Days
2. Core Skills	12 Days
3. Advanced Features	21 Days