

Blackhawk School District

CURRICULUM

Course Title: Introduction to CADD
Course Number: 1030
Grade Level(s): 9-12
Length of Course: 1 semester
Credits: .5
Faculty Author(s): Dale Moll
Date: January 2010

COURSE DESCRIPTION:

This course will give students an introduction to various types of design software. Software explored in this course will include: AutoCAD (2D Design), Inventor and 3D Max (3D Modeling/Animation), and Revit (Architecture). Students will apply basic drafting and design concepts to solve problems using software packages above. Projects will include: Basic engineering drawings, 3D Co2 Car (dragster), Basic architecture design (Floor Plans, Pictorials, and Landscaping) ***Intro to Technical Design is not a prerequisite for Intro to Computer Aided Drafting and Design, but is highly recommended.***

COURSE OUTLINE	OBJECTIVES (PA standard)	PROPOSED TIME / ACTUAL TIME	RESOURCES	LESSON REFLECTION (for future revisions)
<p>Introduction/ Overview of Course</p> <p>Introduction to AutoCAD and tools and Feature</p> <ul style="list-style-type: none"> • Tools/toolbars <p>Orthographic Drawings (14)</p> <ul style="list-style-type: none"> • Layout lines • Object lines • Hidden lines • Dimension lines • Circles • Arcs • Fillets • Snaps • Grid • Printing Views • Setting up Sheets <p>Orthographic Drawings with Isometric Views 4 Drawings</p> <ul style="list-style-type: none"> • Layout lines • Object lines • Hidden lines • Dimension lines • Circles • Arcs • Fillets • Snaps • Grid • Printing Views • Setting up Sheets <p>Intro to Inventor</p> <ul style="list-style-type: none"> • Tools/toolbars • Functions and features 	<p>3.4.12.A2. Describe how management is the process of planning, organizing, and controlling work.</p> <p>3.4.12.A3. Demonstrate how technological progress promotes the advancement of science, technology, engineering and mathematics (STEM).</p> <p>3.4.10.B4. Recognize that Technological development has been evolutionary, the result of a series of refinements to a basic invention.</p> <p>3.4.10.C1. Apply the components of the technological design process.</p> <p>3.4.12.C2. Apply the concept that engineering design is influenced by personal characteristics, such as creativity, resourcefulness, and the ability to visualize and think abstractly.</p> <p>3.4.12.C3. Apply the concept that many technological problems require a multi-disciplinary approach.</p> <p>3.4.12.D2. Verify that engineering design is influenced by personal characteristics, such as creativity, resourcefulness, and the ability to visualize and think abstractly.</p> <p>3.4.12.E4 Synthesize the effects of information and communication systems and subsystems as an integral part of the development of the Information Age.</p> <p>3.4.12.E6. Compare and contrast the importance of science, technology, engineering and math (STEM) as it pertains</p>	<p>1 Day</p> <p>1 Day</p> <p>28 Days</p> <p>12 Days</p> <p>1Day</p>	<p>Computers, Software(Auto desk Inventor, AutoCAD, Revit) Laser Printer, Plotter, Projector, Promethean Board, Handouts</p>	

Inventor parts drawings (20) <ul style="list-style-type: none">• Creating the parts• Adding Constraints• Extruding/ Subtracting• Creating the printouts• Annotating Views Intro To Revit <ul style="list-style-type: none">• Tools/ Toolbars Revit House Drawing <ul style="list-style-type: none">• Drawing Plans• Adding Furniture/Lights/Floors/• Rendering• Printing out• Landscaping/Site	to the manufactured world.	26 Days		
		1 Day		
		10 Days		