

Blackhawk School District

CURRICULUM

Course Title: Architecture and Civil Drafting
Course Number: 1032
Grade Level(s): 10-12
Length of Course: 1 year
Credits: 1
Faculty Author(s): Dale Moll
Date: January 2010

COURSE DESCRIPTION:

This is a one-year course designed for students who have completed **Intro to Technical Design and Intro to Computer Aided Drafting and Design or Communicating Technical Design** and would like to specialize in designing and drawing architectural drawings necessary for the construction of a residence. Elements of the course include architectural styles, area planning, structural detailing, pictorial rendering, building specifications, and cost analysis. This course will focus on the use of Autodesk Architectural Desktop to complete all of the drawings listed. Students will also work in groups to construct scale models of their individual designs.

COURSE OUTLINE	OBJECTIVES (PA standard)	PROPOSED TIME / ACTUAL TIME	RESOURCES	LESSON REFLECTION (for future revisions)
<p>Intro/overview of course</p> <p>Types of Areas in a home</p> <ul style="list-style-type: none"> • Living • Dining • Kitchen • Service • Sleeping • Bathroom • Entry/Foyer • Garage • Hall Ways • Specialty Rooms <p>Design Styles/ Features</p> <ul style="list-style-type: none"> • Electrical • Plumbing • Heating/ Cooling • Fung Sui • Design Green • Building Codes and Requirements <p>Research Green Homes</p> <ul style="list-style-type: none"> • Articles • Videos • Internet Sources <p>Green Home Design Project</p> <ul style="list-style-type: none"> • Create complete detailed plans for the construction of a “Green Home” ➤ Plans will include; Foundation, Electrical, Floor Plans, Site Plans, Rendering Views, Furnishing Plans • Complete Presentation 	<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.B3.Compare and contrast how a number of different factors, such as advertising, the strength of the economy, the goals of a company and the latest fads, contribute to shaping the design of and demand for various technologies.</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>3.4.12.B1. Analyze ethical, social, economic, and cultural considerations as related to the development, selection, and use of technologies.</p> <p>3.4.12.B2. Illustrate how, with the aid of technology, various aspects of the environment can be monitored to provide information for decision making.</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</p>	<p>1 Day</p> <p>16 Days</p> <p>25 Days</p> <p>15 Days</p> <p>55 Days</p>	<p>Computers, Software(Auto desk Revit)</p> <p>Laser Printer, Plotter, Projector, Promethean Board</p> <p>Handouts</p> <p>Videos DVD/VCR Projector</p> <p>Binders</p> <p>Wood Foam board Model parts</p> <p>Glue</p> <p>Poster Boards</p>	

<p>of the homes design.</p> <p>Analyze how a home is built and construction a model of a home they designed with a group.</p> <p>Look Parts and responsibilities of civil draftsman</p> <p>Research famous/new architecture structure, architect, or building method.</p>	<p>require a multi-disciplinary approach.</p> <p>3.4.10.D1. Refine a design by using prototypes and modeling to ensure quality, efficiency, and productivity of a final product.</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>3.4.10.D3. Synthesize data, analyze trends, and draw conclusions regarding the effect of technology on the individual, society, and the environment.</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 to the manufactured world.</p> <p>3.4.12.E7. Analyze the technologies of prefabrication and new structural materials and processes as they pertain to constructing the modern world.</p>	<p>30 Days</p> <p>10 Days</p> <p>8 Days</p>		
---	---	---	--	--