

Blackhawk School District

CURRICULUM

Course Title: 3D Animation
Course Number: 1034
Grade Level(s): 10-12
Length of Course: 1 semester
Credits: .5
Faculty Author(s): Dale Moll
Date: January 2010

COURSE DESCRIPTION:

This course is designed for students that have completed 3D Modeling (1033) with a “C” or higher. Students will enhance their design skills using programs such as Autodesk Inventor and 3ds Max. This course will allow students to develop advanced solid modeling and animation techniques. Students will develop a product and create complete presentations using solid modeling and animation techniques.

| COURSE OUTLINE | OBJECTIVES (PA standard) | PROPOSED TIME / ACTUAL TIME | RESOURCES | LESSON REFLECTION (for future revisions) |
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| <p>Review of Inventor and Part Creation / Overview of class</p> <p>Review of assembly</p> <p>Lesson on Animation in Inventor</p> <ul style="list-style-type: none"> • Tools • Formats <p>Assemblies and Animations (5)</p> <ul style="list-style-type: none"> • Completion Drawings • Complete Animations <p>Animations in 3D Max</p> <ul style="list-style-type: none"> • Intro Tutorial • Different formats • Importing Inventor Files • Rendering Animations <p>Creation assemblies and animating in 3D Max</p> <p>Final Project Create Movie Portfolio of all projects in 3D Modeling and 3D Animation</p> <ul style="list-style-type: none"> • Basics of Window Movie Maker • Importing Video | <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>3.4.10.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>3.4.12.E4 Synthesize the effects of information and communication</p> | <p>3 days</p> <p>2 Days</p> <p>2 Days</p> <p>30 Days</p> <p>15 Days</p> <p>10 Days</p> <p>18 Days</p> | <p>Computers, Software(Auto desk Inventor,3D Max, and Windows Movie Maker) Laser Printer, Plotter, Projector, Promethean Board</p> | |

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| | <p>systems and subsystems as an integral part of the development of the Information Age.</p> <p>3.4.12.E6.</p> <p>Compare and contrast the importance of science, technology, engineering and math (STEM) as it pertains to the manufactured world.</p> | | | |
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