Course Curriculum Outline
Technology and Information Tech

Course Name: **3d Solid Modeling Basics** (1 Semester)

Grade Level(s): **9-12**

Course Description: This course will introduce students to 3D solid modeling. Students will explore SolidWorks, a mechanical design application that allows designers to sketch, experiment, and run simulations using a variety of engineering techniques. Students will produce models, assemblies, and detailed drawings using proper techniques and standards that comply with the industry.

Wisconsin State Standards for Technology and Engineering

Learning Priority	Major Topics
Demonstrate skills related to seeking and applying for employment to find and obtain a desired job	• Prepare a resume,, cover letter, employment application
Develop effective resolutions for a given problem, decision or opportunity using available information.	• Determine the best resolution for a problem, decision or opportunity based on given criteria
Design solutions based on gathered information	• Refine a design by using prototypes and modeling to ensure quality, efficiency and productivity of the final product • Develop and produce a product or system using a design process
Use information to describe and design systems	• Document processes and procedures and communicate them to different audiences using appropriate oral and written techniques
Evaluate completed solutions and provide	• Evaluate the design solution using conceptual, physical and mathematical models at various intervals of the design process in order to check for proper design and not areas where improvements are needed.

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Describe and apply engineering design	• A prototype is a working model used to test a design concept by making actual observations and necessary adjustments

Textbook/Other Resources:

SolidWorks Educational Resources