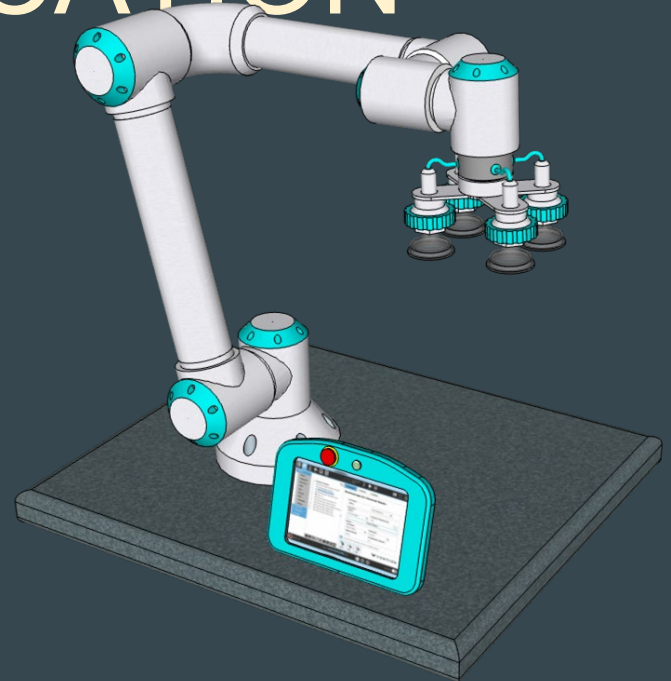


ADVANCED SYSTEMS DESIGN AND FABRICATION

Temple City High School
CTE Pathway:
Engineering Technology



presented by
Dave Dickie
CTE Instructor



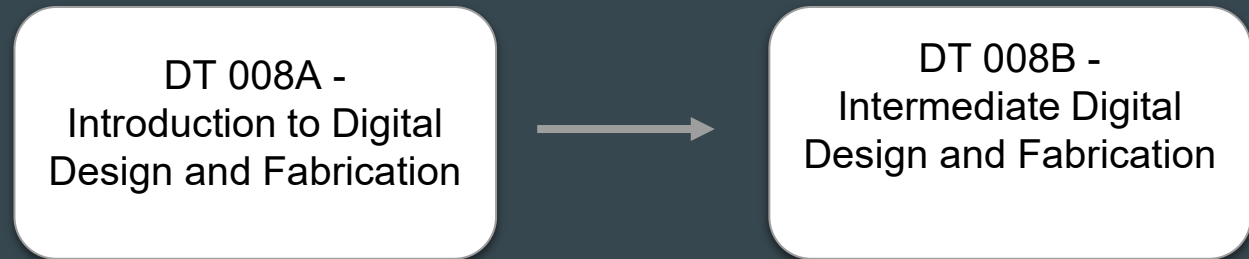
Current Sequence

TCHS



All classes articulated with PCC

PCC



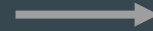
Proposed Sequence

TCHS

Engineering Design
Technology



Advanced Computer
Aided Design



Advanced Systems
Design and Fabrication

All classes articulated with PCC

DT 008A -
Introduction to Digital
Design and Fabrication



DT 008B -
Intermediate Digital
Design and Fabrication



DT 008C -
Advanced Systems
Design and
Fabrication

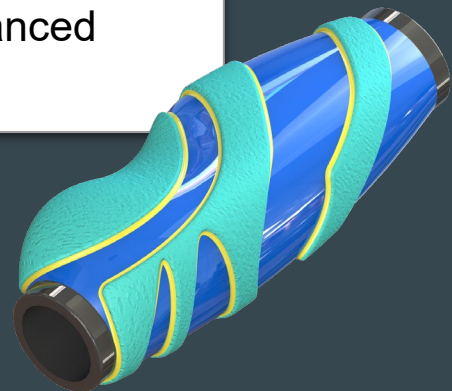
PCC

Why This Class Is Needed

The SolidWorks Professional Certification helps students gain placement in internships, research opportunities, college design teams, and strategic work environments

Industry is requiring job skills related to real world experiences

Preparation for college engineering requirements such as advanced prototyping



Course Overview

Design, develop and manufacture of CAD parametric models and prototypes through design centric projects. Emphasis on problem solving, critical thinking, collaboration and communication in an interdisciplinary environment. Advanced material selection, product development, systems analysis and strength and motion analysis for sustainable production practices. Career skills and portfolio development.



Unit Outlines:

1. Project Development Processes
2. Project Concept Generation
3. 3D Parametric Digital Design and Modeling
4. Effective Prototyping
5. Electronics & Mechanics
6. Sustainable Production Practices
7. Establishing Product Specifications
8. Marketing, Branding, and Project Presentation
9. Certified SolidWorks Professional Examination



CERTIFIED
Professional

3D SOLIDWORKS

Student Driven Outcome

Question: How would a 3rd Design Technology class help you achieve your educational and personal goals?

“I hope to become an engineering major, so it’s very obvious why the next level of engineering design technology will be helpful. Other than that, a challenging class will look good on résumés and transcripts. It will also help with college credit, not to mention give me more complex experience in the engineering process.”

Isa Wu

“It would provide me with a foundation to achieve my future career goals in STEM and engineering. I hope to be well acquainted with the engineering design process and grow my competence as a thinker, maker, and problem solver.”

Joshua Hsu

“A 3rd Design Technology class would help me further expand my interest and improve my skills in engineering. It would teach me valuable skills and knowledge in that field that is not commonly taught in other schools. This course would hone my current skills as well as learn new type topics such as prototyping which is an essential step in the design and engineering process.”

Jesse Wu

Thank you!

Questions or
comments?

