

COMP INT MFG PLTW

Course Description

Computer Integrated Manufacturing is an introduction to the fundamentals of computerized manufacturing technology. Students build on the solid modeling skills developed in the Introduction to Engineering Design, PLTW course. Students use 3D computer software to solve design problems. They assess their solutions through mass property analysis (the relationship of design, junction, and materials), modify their designs, and use prototyping equipment to produce 3D models.

Strands

1. Students will use 3D software for mass property analysis.
2. Students will develop an understanding of the operating procedures and programming capabilities of machine tools.
3. Students will convert computer-generated geometry into a program to direct the operation of CNC machine tools.
4. Students are program robots to handle materials in assembly-line operations.
5. Teams of students will design manufacturing work cells and tabletop factories to solve complex problems that arise in integrating multiple pieces of computer-controlled equipment.

