

PLTW Design & Drawing for Production (DDP)

NHS Course #7800

[PLTW Engineering Video](#)

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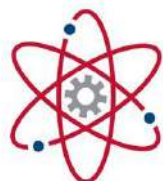
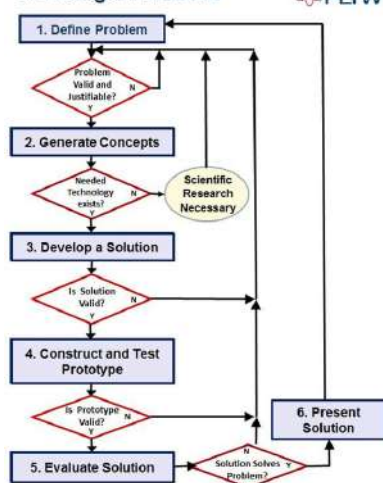
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What is Technology Education?

The NHS Department of Technology & Engineering Education empowers students to step into the role of an engineer, computer scientist, or technical specialist, adopt a problem-solving mindset, and make the leap from dreamers to doers. Courses engage students in compelling, real-world challenges that help them develop in-demand, transportable skills like collaboration, critical thinking, and communication.

A Design Process



PROJECT LEAD THE WAY

PLTW

Igniting imagination and innovation through learning.

ABOUT

Students will dig deep into the engineering design process and how it is used in industry to manufacture a product using three-dimensional solid models. They will work from sketching simple geometric shapes to advanced solid modeling using state of the art computer-aided design (CAD) software. Students will develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges that increase in difficulty throughout the course. In teams and a project-based learning environment, students will continually hone their interpersonal skills, creative abilities, and understanding of the design process used by engineers today. CNC Technologies including 3D Ultimaker printers, a Gantry Shopbot router, an Intelitek Milling machine, and a Trotec Laser Cutter/Engraver will bring the products to life for student testing and analysis.

TOPICS

- Design Process
- Technical Drawing
- Measurement & Statistics
- Modeling Skills
- Geometry of Design
- Reverse Engineering
- Documentation
- Advanced Modeling
- Design Team
- Design Challenges



ELIGIBILITY

ALL Students in Grades 9-12 can challenge this course which satisfies the Arts 1 Credit requirement for graduation. PLTW DDP is the entry level course to upper level engineering courses including Computer Integrated Manufacturing and Principles of Engineering.

Students can earn three credits from Rochester Institute of Technology (RIT) by earning an 85% or better and are successful on the end-of-year RIT PLTW assessment. Cost for the three credit course is approximately \$225.