NORTHPORT-EAST NORTHPORT
UNION FREE SCHOOL DISTRICT

Principles of Engineering

PROJECT LEAD THE WAY PLTW

NHS Course #7408
[PLTW Engineering Video](#)

CONTACT

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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.

ABOUT

Through problems that engage and challenge, students explore a broad range of engineering topics, including energy and power, the strength of materials and structures, automation and control systems, and statistics and kinematics. Students develop skills in problem solving, research, and design while learning strategies for design process documentation, collaboration, and presentation. CNC Technologies including 3D Ultimaker printers, a Gantry Shopbot router, an Intelitek Milling machine, and a Trotec Laser Cutter/Engraver will bring models to life for student testing and analysis.

TOPICS

- Mechanisms
- Energy Sources
- Energy Applications
- Machine Control
- Fluid Power
- Statics
- Material Properties
- Material Testing
- Statistics
- Kinematics
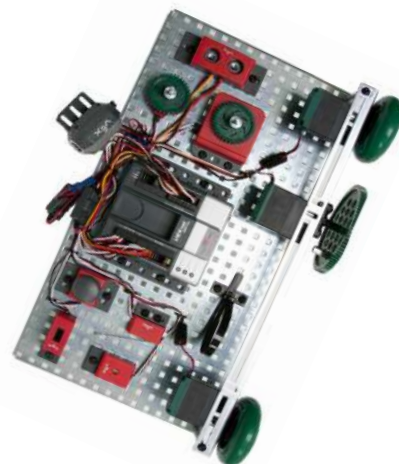
ELIGIBILITY

ALL Students in Grades 10 - 12 can challenge this course provided they meet the prerequisites: *Algebra I and PLTW Design & Drawing for Production.*

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.

PRINCIPLES OF ENGINEERING