

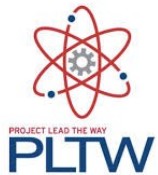
CCCTC WEBSITE PREVIEW



Project Lead the Way is a pre-engineering program that gives students a glimpse into the world of engineering through computer-based and hands-on activities and projects. Students work as a team to construct solutions to engineering problems using sophisticated software such as Inventor and EdgeCam.

COLLEGE CREDITS AND CERTIFICATIONS:

- Earn articulated college credits through Penn College of Technology, The Community Colleges of Baltimore County, University of Maryland, Baltimore County, and Frederick Community College.
- Earn transcribed college credits through Rochester Institute of Technology.



MAJOR UNITS OF STUDY:

Introduction to Engineering Design

- Create solutions to design problems
- Use software (Inventor) to develop 3-D models
- Learn product design process using Computer Aided Design (CAD)

Principles of Engineering

- Perspectives of engineering
- Design process
- Engineering systems
- Communication & documentation
- Materials & materials testing
- Thermodynamics
- Engineering for Quality and reliability

Computer Integrated Manufacturing

- Principles of prototyping, robotics, and automation
- Construct 3 dimensional models using computer controlled equipment
- Computer Modeling
- Computer Numeric Control (CNC)
- Computer-aided manufacturing robotics

Digital Electronics

- Electronic design software used to build, analyze, and export to a printed circuit autorouting program that generates printed circuit boards.
- Analog and digital & digital fundamentals
- Number systems and binary addition
- Logic gates and functions

Engineering Design and Development

Work as a team to design and construct a solution to an authentic engineering problem.

SCHEDULE:

(5 credits): Introduction to Engineering Design, Principles of Engineering, Computer Integrated Manufacturing, Digital Electronics, and Engineering Design and Development

Want to know more? Check out our website at:

www.carrollk12.org/ctc

"Meet the Instructor"

College & Career Opportunities

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