

# Project Lead the Way: Pre-Engineering (PLTW)

# Project Lead the Way: F

#### Is This You?

- Do you like working with technology?
- Do you excel at math and science?
- Do you like to solve problems?
- Do you want to build a robot?
- Do you want to prepare for college and a career?

## Take This Class and You Will...

- Explore Pathway to Engineering (PTE) (design process and links STEM principles to relevant problem solving activities)
- Learn Introduction to Engineering Design (3D computer modeling, software; study of the design process)
- Learn Principles of Engineering (Use a computer simulation to learn the logic of electronics)
- Learn Digital Electronics (Use of computer simulation to learn the logic of electronics)
- Learn Civil Engineering (Collaborative development of community-based building projects)
- Learn Computer Integrated Manufacturing (Robotics and automated manufacturing; production of 3-D design)
- Learn Engineering Design and Development (Research, design, and construct solutions to engineering problems)
- Tour local manufacturing plants.
- Explore career opportunities and post-secondary studies.

# Student Leadership/Community Opportunities

Boiler Tech Challenge

# Pre-Engineering (PLTW)

- Business Professionals of America
- Vex Robotics Competition
- Rube-Goldberg Competition

#### C<sup>4</sup> Cluster: Engineering & Manufacturing

State College and Career Pathway: Manufacturing (Project Lead the Way-PLTW)

## **Opportunity for Dual Credit and/or Certification**

• Ivy Tech Dual Credits available

### Post-Secondary Education

- Purdue University
- Rose Hulman University
- IUPUC

#### Prepare For a Career in...

- Mechanical Engineering and Mechanical Engineering Technology (MET)
- Architectural Engineering
- Electronics Engineer
- Civil Engineering
- EE and EET

#### **Employment Opportunities**

Internships at:

- Cummins Inc.
- Sacoma

#### Additional information

www.pltw.org

# Do you want to take a class in this pathway? Then check out the following $C^4$ classes.

Grade 9-12

- T55071: Introduction Engineering Design
- T55011: Geo/IED (Geometry and IED Block class with Geometry Honors option; 1 math credit& 1 C4 PLTW credit)

Grade 10-12

- T55081: Principles of Engineering (POE)
- T55112: Mechanical Drafting & Design
- T55212: Electronics and Computer Technology
- T55312: Precision Machining
- T55412: Welding Technology
- T58012: Automotive Services Technology

Grade 11 & 12

- T55051: Computer Integrated Manufacturing
- T55061: Digital
- T55101: Civil Engineering & Architecture (CEA)

Grade 12

• T55091: Engineering Design & Development (EDD)

## C<sup>4</sup> Directory

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Check out our website-www.bcsc.kl2.in.us/c4