Butler Tech In Your School

Discover PLTW – ENGINEERING & DESIGN

Butler Tech in Edgewood City Schools

Industry Overview

PLTW Engineering & Design students tackle challenging yet attainable problems to increase their capacity for solving problems using a design process. The program equips students with the skills of using CAD software, CNC tools (laser cutter, 3D printers, mills), robotics, and more. The students have access to these tools for prototyping or producing their designs. Woven throughout the courses are math, science and engineering topics that provide students the ability to bring their designs to the next level and to learn standardized methods of communication for engineering and design.

Students have the opportunity to take a different Engineering course throughout all four years at EHS. This pathway can be a great launch into post-secondary programs for Engineering, Engineering Technology, Computer Sciences, or trades involving fabrication.

Coursework

- Civil Engineering and Architecture
- Computer Integrated Manufacturing
- Introduction to Engineering Design
- Principles of Engineering

Student Organization

Students enrolled in the Butler Tech PTLW Engineering & Design courses at Edgewood have the opportunity to participate in the Technology Student Association (TSA). TSA is a national, non-profit organization of high school and middle school student members who are engaged in STEM. Since TSA was chartered in 1978, almost 4,000,000 members have participated through competitions, intra-curricular activities, leadership opportunities, and community service.

"Project based instruction provides students that ability to learn through hands-on activities. As the students grow, it is exciting to see students take ownership and control of their learning through student selected projects."

Butler Tech Course Offerings at Edgewood

Civil Engineering and Architecture

Civil Engineering and Architecture is the study of the design and construction of residential and commercial building projects. The course includes an introduction to many of the varied factors involved in building design and construction including building components and systems, structural design, storm water management, site design, utilities and services, cost estimation, energy efficiency, and careers in the design and construction industry. The major focus of the CEA course is to expose students to the design and construction of residential and commercial building projects, design teams and teamwork, communication methods, engineering standards, and technical documentation.

Computer Integrated Manufacturing

Computer Integrated Manufacturing is the study of manufacturing planning, integration, and implementation of automation. The course explores manufacturing history, individual processes, systems, and careers. In addition to technical concepts, the course incorporates finance, ethics, and engineering design. This reflects an integrated approach that leading manufacturers have adopted to improve safety, quality, and efficiency.

Introduction to Engineering Design

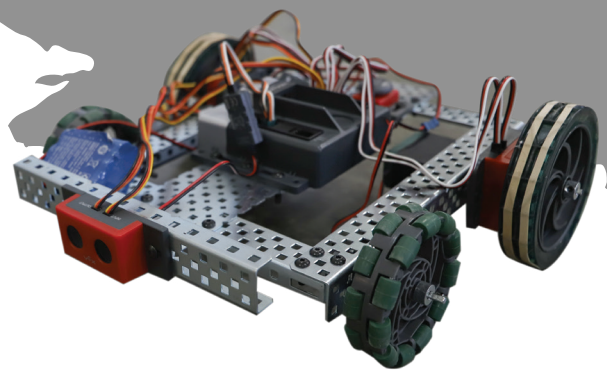
Introduction to Engineering Design (IED) is a high school level course that is appropriate for students who are interested in design and engineering. The major focus of the IED course is to expose students to design process, research and analysis, teamwork, communication methods, global and human impacts, engineering standards, and technical documentation. IED gives students the opportunity to develop skills and understanding of course concepts through problem-based learning.

Principles of Engineering

Principles of Engineering exposes students to some of the major concepts in a college level engineering course of study. Go beyond "myth-busting" to solution building. As students master the basic concepts needed to continue their education in engineering or engineering technology, they will apply them, tackling real world challenges. Students will team up to test and share their developing skills through hands-on projects and presentations.

"Seeing the pride and joy students experience when they surprise themselves with what they've accomplished is priceless."

Instructor,
PLTW – Engineering & Design



Discover PLTW – Engineering & Design through Butler Tech and pursue a career that's right for you.

Butler Tech connects high school students to career technical education in more ways than ever. Complete your traditional academic courses in your school and enhance your educational experience with career-focused labs and on-the-job training. Each moment in a Butler Tech career technical course is a step toward building your future.

Butler Tech

See your guidance counselor for registration information.

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