

COURSES

Introduction to Engineering Design

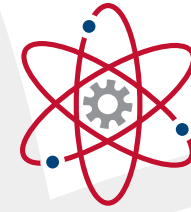
In this course, students use 3D solid modeling design software to help them design solutions to solve problems. Students will learn how to document their work and communicate solutions to peers and members of the professional community. This course is designed for 9th or 10th grade students. The major focus of the IED course is to expose students to the design process, research and analysis, teamwork, communication methods, global and human impacts, engineering standards and technical documentation.

Principles of Engineering

This survey course of engineering exposes students to some of the major concepts they'll encounter in a postsecondary engineering course of study. Students have an opportunity to investigate engineering and high-tech careers and to develop skills and understanding of course concepts. Students employ engineering and scientific concepts in the solution of engineering design problems. They develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges. Students also learn how to document their work and communicate their solutions to peers and members of the professional community. This course is designed for 10th or 11th grade students.

Digital Electronics coming fall 2011

This course is the study of electronic circuits that are used to process and control digital signals. Digital electronics is the foundation of all modern electronic devices such as cellular phones, MP3 players, laptop computers, digital cameras, and high definition televisions. The major focus of the DE course is to expose students to the design process of combinational and sequential logic design, teamwork, communication methods, engineering standards, and technical documentation. This course is designed for 10th or 11th grade students.



PROJECT LEAD THE WAY

PLTW

Igniting

imagination
and **innovation**
through **learning**

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OVERVIEW

PLTW's Mission

PLTW's mission is to ensure that the United States succeeds in the increasingly high-tech and high-skill global economy by partnering with middle schools and high schools to prepare students to become the most innovative and productive in the world.

Curriculum

PLTW's approach using activities, project, and problem-based learning (or APPB learning) centers on hands-on projects that have real-world applications. The curriculum makes mathematics and science relevant and strives to help students understand how the skills they are learning in the classroom may be applied in everyday life.

History & Scope

PLTW began in 1998 in 12 high schools in upstate New York as a program designed to address the shortage of engineering students at the college level. It has grown to a network of more than 3,300 middle and high schools in 50 states and the District of Columbia. In 2007, PLTW added a Biomedical Sciences program, also project-based, to stem an impending shortage of health care professionals and researchers.

TALKING POINTS

Colleges and Universities

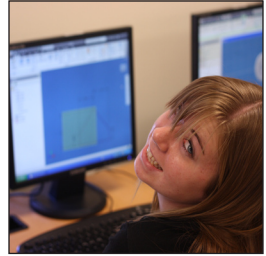
PLTW has a relationship with more than 100 colleges and universities. Of these 36 offer credit to students for completion of select PLTW courses.

Student Engagement

PLTW is able to accomplish this mission because it has broken the code on student engagement through hands-on, project-based curriculum in STEM fields. To date, more than 500,000 students in the United States have taken at least one PLTW course.

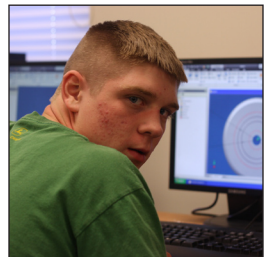
“My favorite class activity was when we made the puzzle cubes. I liked putting it together and trying to solve it.”

Alyssa Wortz



“(The projects) made me think and come up with new ideas. It was a challenge, and I'm glad I finished it. It was a lot of fun.”

Cody Stinchcomb



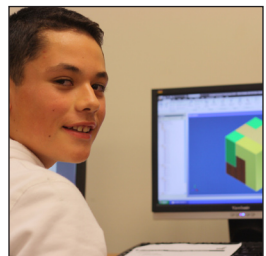
“I thought the cubes were pretty cool as well as the train. It's fun because we're designing this stuff and putting it together in and outside of the computer.”

Mark Glimpse



“Modeling things in Inventor is fun, and it taught me a lot. I look forward to continuing it.”

Jeovanni Rubio



www.pltw.org