

PLTW Engineering Electives or a Pathway to College/Career

Introductory Courses (both highly recommended before taking higher level specialization courses)

9th/10th Grades

Introductory Course - Introduction to Engineering Design 1-2 (IED) Students learn the engineering design process and have exposure to a variety of types of engineering fields such as mechanical, structural, civil, electrical, aerospace, etc. Students learn the introductory tools and applications of Autodesk Inventor CAD software that will be used in the subsequent pathway courses. In this course, the teacher teaches you the math you need to know to do the engineering work. *Meets UC/CSU "D" course.*

Articulation - Palomar Community College DT 101 AutoCAD Introduction to Computer Aided Drafting (cross listed as Palomar College ENGR 101)

10th/11th Grades

Honors Principles of Engineering 1-2 (POE) Students explore a broad range of engineering topics including mechanisms, strength of structure and materials, coding for automation, and then they apply what they know to take on challenges like designing a solar-powered car. (recommend having taken Integrated Math 2A-2B with a C or better). *Meets UC/CSU "D" course.*

Senior Year Creative Design Experience – Capstone course for Pathway

Engineering Design and Development 1-2 (EDD) Students identify a real-world challenge (example: designing a tool or apparatus to help someone who is disabled) and then research, design, and test a solution, ultimately presenting their unique solutions to a panel of engineers. Students have high degree of choice in their design projects and work in small groups to design, build and present their projects. *Meets UC/CSU "G" elective course*

All 'Project Lead The Way' courses are recognized as a respected academic program by UC/CSU and are UC/CSU "G" academic electives.

Pathway completion: 20 credits in a single pathway, including 10 in a capstone course.

9/8/20