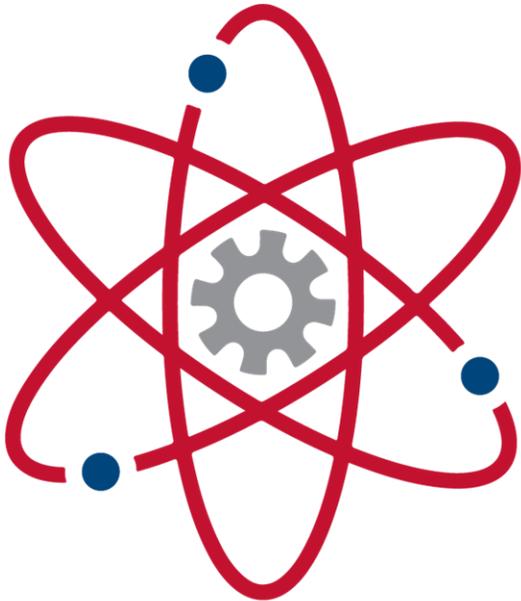


Paint Branch High School

PLTW Engineering



Project Lead The Way Engineering Courses provided transformative learning experiences and helps Paint Branch HS create an engaging, rigorous, hands-on classroom environment through project based learning. Each of the 5 courses in this elite MSDE CTE Program of study

gives students an opportunity to earn college credit, awards Advanced Level Credit, and puts them into contact with community engineers.



5 Course Pathway

- Introduction to Engineering Design (IED)
- Principles of Engineering (POE)
- Digital Electronics (DE)

➤ Civil Engineering and Architecture (CEA)

➤ Engineering Design and Development (EDD)

Introduction to Engineering Design (IED)

Students dig deep into the engineering design process, applying math, science, and engineering standards to hands-on projects. They work both individually and in teams to design solutions to a variety of problems using 3-D modeling software, and use an engineering notebook to document their work.



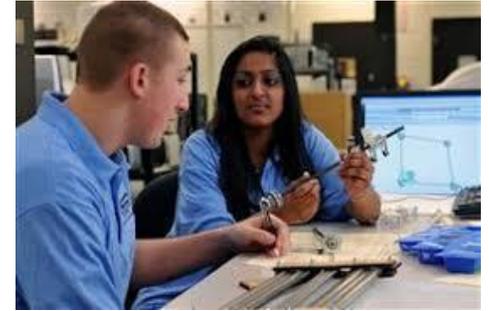
Principles of Engineering (POE)

Through problems that engage and challenge, students explore a broad range of engineering topics, including mechanisms, the strength of structures and materials, robotics, and automation. Students develop skills in problem solving, research, and design while learning strategies for design process documentation, collaboration, and presentation.



Civil Engineering and Architecture (CEA)

Students learn important aspects of building and site design and development. They apply math, science, and standard engineering practices to design both residential and commercial projects and document their work using 3-D architectural design software.



Digital Electronics (DE)

From smartphones to appliances, digital circuits are all around us. This course provides a foundation for students who are interested in electrical engineering, electronics, or circuit design. Students study topics such as combinational and sequential logic and are exposed to circuit design tools used in industry, including logic gates, integrated circuits, and programmable logic devices.



Engineering Design and Development (EDD)

The knowledge and skills students acquire throughout PLTW Engineering come together in Engineering Design and Development as they identify an issue and then research, design, and test a solution, ultimately presenting their solution to a panel of engineers. Students apply the professional skills they have developed to document a design process to standards, completing Engineering Design and Development ready to take on any post-secondary program or career.

□

For more information, contact Tashia Tillett, Resource Teacher of Engineering Business, and Art at Tashia_E_Tillett@mcpsmd.org or call direct line 301-388-9944



Our staff have received PLTW Engineering Certification Through University of Maryland Baltimore County

Pamela Tyler, Certified in IED, DE, and teaches the Capstone ED

Tashia Tillett, Certified in IED, POE, and DE

