



Project Lead the Way (PLTW) Engineering for Aerospace

FLORIN HIGH SCHOOL

PLTW Engineering empowers students to step into the role of an engineer, adopt a problem-solving mindset and make the leap from dreamers to doers. The program's courses engage students in compelling, real-world challenges that help them become better collaborators and thinkers. From launching space explorations to delivering safe, clean water to communities, engineers find solutions to pressing problems and turn their ideas into reality. Students take from the courses in-demand knowledge and skills they will use in high school and for the rest of their lives, on any career path they take.



FUTURE CAREER OPTIONS

High School Diploma

- Junior Drafter
- CAD Technician
- Construction Apprentice
- Engineering Aide
- Drafting Apprentice
- Apprentice Electrician
- Computer Equipment Installer
- Security Equipment Installer

AA, AS Degree or Certificate

- Drafter/Designer
- Plan Checker
- Surveyor
- Estimator
- Electrical Engineering Technician
- Mechanical Engineering Technician
- Laboratory Technician
- Civil Engineering Technician
- Chemical Engineering Technician
- Aerospace Engineering Technician
- Architectural Drafters
- Telecommunications Technician
- Journeyman Electrician

BS, BA or Post-Graduate Degree

- Mechanical Engineer
- Aerospace Engineer
- Agricultural Engineer
- Electrical Engineer
- Computer Hardware Engineer
- Telecommunications Engineer
- Landscape Architect
- Materials Engineer
- Nuclear Engineer
- Architect
- Industrial Designer
- Civil Engineer
- Structural Engineer

ACADEMY BENEFITS

- Specialized courses
- Advanced technology
- Guest speakers
- Industry-related field trips
- Post-secondary guidance and articulation

STUDENT ACCOMPLISHMENTS

- Hosted inaugural Sacramento Vex Robotics tournament
- Hosted first ever Sacramento Vex Robotics League
- Robotics Club was winners of the Northrop Gunman Foundation Team Grant, two years in a row
- Winner of H2AC Toyota Hydrogen RC Grant, 1 of 20 teams competing in Northern California
- Winner of Award of Excellence for the Government Transformation and Innovation 2017
- Participants in Women's Engineering Day at Intel

SAMPLE CAREER-THEMED COURSES

The sample program of study outlined below lists academy-specific courses and does not include the full list of graduation requirements in writing, math, VAPA, WL, etc. These courses are subject to change based upon industry trends.

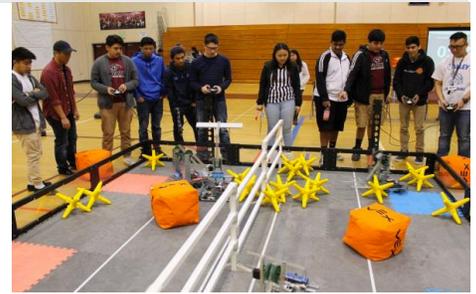
Career-Themed Course(s)

9th Grade PLTW Introduction to Engineering Design (IED): Students dig deep into the engineering design process, applying math, science and engineering standards on hands-on projects. They work both individually and in teams to design solutions to a variety of problems using 3-D modeling software (Autodesk Inventor) and use an engineering notebook to document their work.

10th Grade PLTW Principles of Engineering Design (POED): Through problems that engage and challenge, students explore a broad range of engineering topics, including mechanisms, the strength of structure and materials and automation with robots. Students build simple machines, robots, mini circuit boards, bridges and complex machines.

11th Grade PLTW Engineering for Aerospace (AE): This course propels students' learning in the fundamentals of atmospheric and space flight. As they explore the physics of flight, students bring the concepts to life by designing airfoil, propulsion system and rockets. They learn basic orbital mechanics using industry standard software. They also explore robot systems through mars landing project and learn basic flight through flight simulation software.

12th Grade Engineering Design and Development (EDD): The knowledge and skills students acquire through PLTW Engineering come together in EDD. The student's 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 and design process of standards, completing Engineering Design and Development ready to take on a post-secondary program or career.



CONTACT INFORMATION



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ACADEMY VS. NON-ACADEMY DATA (DISTRICT-WIDE)

