

Curriculum Outline

9TH GRADE

- ❖ Engineering / Computer Science
- ❖ English
- ❖ Math
- ❖ Science
- ❖ Foreign Language/Elective
- ❖ Physical Education/Team Sports

10TH GRADE

- ❖ Engineering/Computer Science (optional)
- ❖ English
- ❖ Math
- ❖ Social Science
- ❖ Science
- ❖ Foreign Language/Elective
- ❖ Physical Education/Team Sports

11TH GRADE

- ❖ Engineering/Computer Science (optional)
- ❖ English
- ❖ Math
- ❖ Science
- ❖ Social Science
- ❖ Foreign Language/Elective

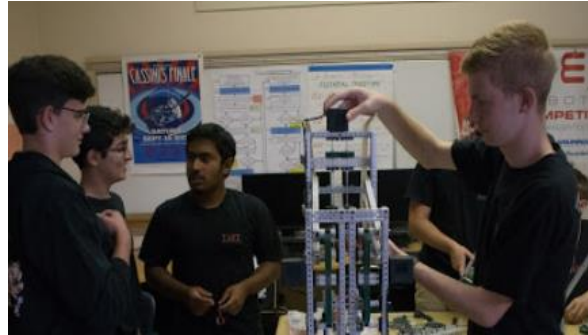
12TH GRADE

- ❖ Engineering/Computer Science (optional)
- ❖ English
- ❖ Math
- ❖ Science
- ❖ Social Science
- ❖ Foreign Language/Elective

* All courses in English, Math, Science, and Social Science will be honors or Advanced Placement level throughout the four years in the program. Honors and AP level is optional in French and Spanish.

The VEX Robotics Design System

An exclusive robotics platform offered to only PLTW schools, the program implements rigorous hands-on and project based robotics learning. Students will participate in the VEX Robotics Competition, learning to apply their robotics knowledge in a unique and problem-solving environment.



CONTACT US

Taft Charter High School Website
www.tafthigh.org

Magnet Program Website
Taftcharterhssteammagnet.weebly.com

Daniel Steiner
Principal

Yun J. Yu
Magnet Coordinator
yyu@lausd.net

Magnet Office: (818) 618-3518
Fax: (818) 592 - 0877

TAFT CHARTER HS GIFTED STEAM MAGNET



5461 Winnetka Avenue
Woodland Hills, CA 91364
School: (818) 227-3600
Fax: (818) 592-0877

About Our Program

The LAUSD School Board approved a Gifted / Highly Gifted / High Ability STEAM (Science, Technology, Engineering, Arts, and Mathematics) Magnet program in 2015 to open at Taft Charter High School for the 2016-2017 school year.

Two career pathways, Engineering Design and Computer Science, are being offered.

All students will enroll in an introductory course in engineering design or computer science in the 9th grade. In the 10th grade, students may select to continue with the engineering design or the computer science pathway to complete the full pathway curriculum or opt out of the pathway.

Throughout the four years, students will be offered a rigorous and challenging interdisciplinary curriculum in the Magnet program to prepare for a STEAM career pathway in college.



Engineering Design

The Engineering Design curriculum pathway offered is in collaboration with Project Lead the Way's curriculum in partnership with the VEX Robotics Design System.

PLTW four-year course outline:

- ◇ Introduction to Engineering Design
- ◇ Principles of Engineering
- ◇ Engineering Design and Development
- ◇ Aerospace Engineering

Introduction to Engineering Design

Students will design solutions using 3D modeling software and an engineering notebook.

Principles of Engineering

Students will explore mechanisms, strength of structures, materials and automations.

Engineering Design and Development

Students will identify an issue and then research, design, and test a solution, ultimately presenting their solution to a panel of engineers.

Aerospace Engineering

Students will explore the physics of flight and create a program for an autonomous space rover.



Computer Science

The Computer Science curriculum pathway offered is aligned to the College Board Advanced Placement, code.org, Riot Games and the Annenberg Foundation curriculum.

Three-year course outline:

- ◇ AP Computer Science Principles
- ◇ Computer Programming and Game Design
- ◇ AP Computer Science A

AP Computer Science Principles

Students will develop computational thinking skills vital for analyzing and studying data to draw conclusions from trends.

Computer Programming and Game Design

Student will build on their coding experience as they create programmatic images, animations, interactive arts, and games. Students will practice design, testing, and iteration as valuable part of the programming process.

AP Computer Science A

Students will be introduced to fundamental topics that include problem-solving, design strategies and methodologies, organization of data structures, approaches to processing algorithms, and analysis of potential solutions.

