

Manufacturing Technology Pathway

IED—Introduction to Engineering Design

A course that teaches problem-solving skills using a design development process. Models of product solutions are created, analyzed and communicated using solid modeling computer design software.

CIM-Computer Integrated Manufacturing

A course that applies principles of robotics and automation. The course builds on computer solid modeling skills developed in Introduction to Engineering Design, and Design and Drawing for Production. Students use CNC equipment to produce actual models of their three-dimensional designs. Fundamental concepts of robotics used in automated manufacturing, and design analysis are included.

AMT-Advanced Manufacturing Technology

A course that is under construction and will debut in the 2015-2016 school year.



FACULTY

- ◆ **Jeff Farr - EDD, IED, POE, CIM, Geometry, AP Calculus**
- ◆ **Jeff Colton - IED, CSE, Algebra, Applied Calculus**
- ◆ **Dale Beverley - MAT, DVP, CSAP**
- ◆ **Chris Price - DFM, English 4**
- ◆ **Dante Bui - POE, Chemistry, Chemistry H**



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FEAT



Foothill Engineering And Technology



- ◆ Four STEM pathways designed to allow students to explore a variety of Engineering, Manufacturing, Media and Computer classes.



- ◆ The pathways prepare students for entry to college, training/certification programs or the workplace. The courses are taken along with approved college prep academic classes. The project based learning pathway courses count as general elective credit and students are welcome to participate in multiple pathways.

KNIGHTS



Engineering Pathway

IED—Introduction to Engineering Design

A course that teaches problem-solving skills using a design development process. Models of product solutions are created, analyzed and communicated using solid modeling computer design software.

PDE—Principles of Engineering

A course that helps students understand the field of engineering/engineering technology. Exploring various technology systems and manufacturing processes help students learn how engineers and technicians use math, science and technology in an engineering problem solving process to benefit people.

EDD—Engineering Design and Development

An engineering research course in which students work in teams to research, design and construct a solution to an open-ended engineering problem. Students apply principles developed in their preceding courses and are guided by a community mentor. They must present progress reports, submit a final written report and defend their solutions to a panel of outside reviewers at the end of the school year.

Production Art and Broadcasting Pathway

MAT—Media Arts and Technology



DVF—Digital Film Making

From idea to script to final film, students will learn the fundamentals of motion picture production while collaborating with students on short form digital video and screenwriting projects. The class will take a hands on approach and introduce the students to the creative side (script and film analysis, working with actors, visualization, storyboard-ing techniques, etc.) and the basic technical side (camera, lights, editing, etc.) of film making.

DVP—Digital Video Production/Broadcasting

In this course students will write and produce broadcasts with the intention of going live in a variety of formats. The framework for the class is study of the art of filmmaking, and the creative process that precedes any film, television, or broadcasting project. A film is the product of creativity, writing, rewriting, collaboration, and more rewrites. All students are expected to develop proficiency in each of the creative steps required for successful production.



Computer Science Pathway

MAT—Media Arts and Technology

Completion of the Media Arts/Technology course gives each student the exposure, through a combination of text, interactive web applications, and related lab activities, along with applicable areas of math, engineering and science, an introductory course in the following topics: Computer Hardware and Operating Systems, Computer Science and Programming, Introduction to Engineering Design, and Digital Video Productions.

CSE—Computer Science/Software Engineering

The main purpose of this course is to develop computational thinking in the field of computing and to introduce computational tools that foster creativity. In CSE, students will work in teams to create apps for mobile devices, automate tasks in a variety of languages, and find patterns in data. Students collaborate to create and present solutions that can improve people's lives. Other topics will include Scratch, Python, SQL, cyber security, HTML and the impact of computer science in other fields.

CSAP—Computer Science Advanced Placement

Computer Science AP is an Advanced Placement course in programming using JAVA, as outlined by the College Board. Computer Science A emphasizes programming methodology and procedural abstraction. It also includes the study of algorithms, basic data structures, and data abstraction.