



ADVANCED SCIENCE & ENGINEERING PROGRAM

The Advanced Science & Engineering Program (ASEP) successfully prepares students for college majors in science, engineering, and computer science. The unique curriculum combines AP level and exclusive, specialized Honors courses in science with real-world problem-based learning, encouraging students to develop as scientists and engineers.

On an average day, an ASEP student may work on synthesizing a biodegradable plastic product while studying the effect of plastics on the environment.

Fairmont students have the opportunity to work in fully equipped laboratories including one which offers PCR thermal cyclers, gel electrophoresis, and tissue culture. Much of the equipment and study is usually only found in university settings.

PROGRAM BENEFITS:

- Students gain skills through problem based learning in ASEP core courses.
- Access to state-of-the-art equipment
- Personalized academic and college counseling from dedicated program counselors.
- Experiences and opportunities that will foster a deep love of science and technology through discovery, exploration, and critical thinking.
- Students have the opportunity to earn an IB diploma while in the Advanced Science & Engineering Program.



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Advanced
Math

Advanced
Placement

ASEP

Athletics

Counseling

Debate

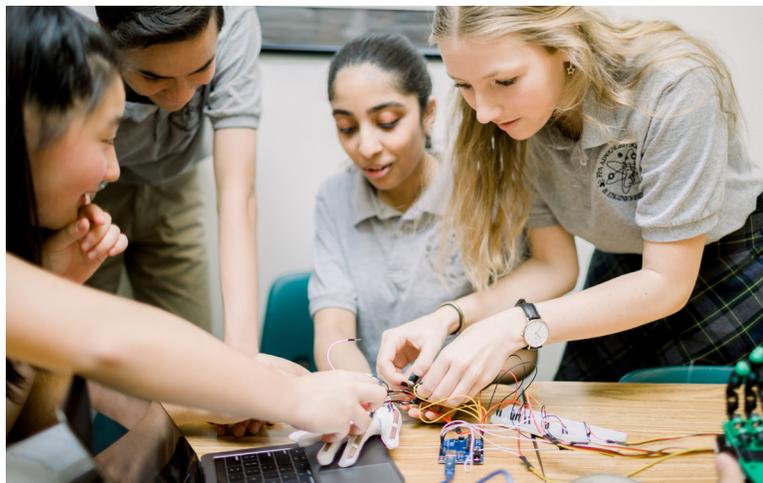
E-sports

ABP

International
Baccalaureate

Robotics

VAPA



FRESHMAN	Methodologies in Science & Engineering (H)
SOPHOMORE	Bioengineering (H)
JUNIOR	U of A Engineering Physics 102 (H) Organic Chemistry (H), or Biotechnology (H)
SENIOR	U of A Engineering Physics 102 (H), Organic Chemistry (H), Biotechnology (H), or Advanced Coding & AI Applications (H)

CHANGE TO: STUDENTS IN ASEP HAVE PARTICIPATED IN THE FOLLOWING EXTRACURRICULAR OPPORTUNITIES:

- Research at USC, UC Irvine and CSUF
- UCLA Nanoscience Lab Project
- Cardiothoracic Surgical Skills Internship (Stanford)
- Biology Research (Caltech)
- Lymphoma Research at the City of Hope
- Methionine Cancer Research (UCLA)
- HIV Research (USC)
- Metabolic Machines and Cadaver Dissection (USC)
- Biodiesel Research (CSUF)
- Applied Power Concepts - Internship
- FRC Robotics Team
- Kennedy Space Center
- Space Expo
- Boeing Engineering Week
- NASA's Jet Propulsion Lab
- Disney's Engineering Program



ASEP GRADUATES HAVE CONTINUED THEIR EDUCATION AT COLLEGES AND UNIVERSITIES SUCH AS:

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| • Brown University | • Massachusetts College of Pharmacy & Health Sciences | • Stanford University |
| • California Institute of Technology | • Massachusetts Institute of Technology (MIT) | • University of California, Berkeley |
| • Columbia University | • Northwestern University BS/MD Program | • University of California, Los Angeles |
| • Cornell University | • Pomona College | • University of Michigan |
| • Dartmouth College | • Rensselaer Polytechnic Institute Physician-Scientist BS/MD Program | • University of Pennsylvania |
| • Harvard University | | • Yale University |
| • Harvey-Mudd College | | • University of Chicago |
| • Johns Hopkins University | | • Virginia Commonwealth University BS/MD Program |