



FREQUENTLY ASKED QUESTIONS

1. **What is the Space & Engineering Academy (SEA)?**

The Space & Engineering Academy is a four-year program that prepares students for college studies and careers in the areas of science, engineering, and technology. The SEA program includes a combination of special courses, regular courses, special activities, and student guidance.

2. **How are SEA classes different from regular classes?**

SEA students learn the same core concepts and skills that they would learn in a regular class, but they learn those core concepts in the context of space, engineering, and technology themes. SEA students are also expected to learn skills that will be vital to them in their future careers: teamwork, problem solving, technical writing, presentation, and computer skills. SEA freshmen take SEA Physics instead of Biology, because Physics is the foundation of space science and engineering. SEA sophomores take SEA Biology. SEA juniors take two science classes: they take Engineering Design, which focuses on learning and applying engineering design skills, plus SEA Chemistry. SEA seniors take their choice of Product Design, Advanced Placement Chemistry, Enhanced Physics, Advanced Placement Physics, or Advanced Placement Biology. In Product Design, students learn how engineers design products as they develop and make mechanical toys or household products and electronic smart devices.

3. **What are some of the SEA's activities?**

Each year we take several field trips, which change from year to year to give students more opportunities. Recently we have taken trips to Lawrence Livermore Lab to tour the National Ignition Facility and talk with engineers and scientists about their jobs, and we have toured the Amazon Fulfillment Center to see their use of engineering and robotics. In addition to field trips, we send students out to workplaces in the Tracy area to shadow engineering professionals for a day as they do their jobs. And we have an SEA Student Council that coordinates homecoming floats, game nights, and other events. For students interested in robotics, we have a Robotics Club that competes in regional robotics tournaments.

4. **What is available for advanced students in the SEA?**

At the freshman and sophomore levels, advanced students can take pre-AP courses and Honors courses, just as they would as a regular student. At the junior and senior level, advanced students can choose from any of West High's Advanced Placement courses, earning college credit if they take and pass the appropriate AP Exam.

5. What kind of support is available for students who may be struggling with a subject?

We want all of our SEA students to be successful, and there are several ways students can get the help they need. SEA teachers are available to meet with students individually before school, after school, and at lunch. Subject-area study halls are available before and after school throughout the week for students who need extra help. We expect our SEA students to earn grades that reflect their full potential.

6. What other benefits are there for students in the SEA?

SEA students and teachers are part of a “small learning community” within the larger West High student body. They have a sense of belonging, and they are with students and teachers who share their interests. Being in the SEA also gives students the opportunity to earn two special recognitions. SEA students who actively participate in SEA programs and maintain a GPA of at least 3.25 for two consecutive years can earn an SEA Block W award. SEA students who complete a four-year SEA pathway, do a senior service project, and complete other requirements can earn SEA Graduate Certification, which includes a special notation on their transcript, an SEA seal on their diploma, and a medallion to wear at graduation. SEA Graduates who have a cumulative GPA of at least 3.50 can graduate With Honors.

7. What do SEA graduates do after high school?

SEA Graduates have gone on to the Universities of California, including UC Berkeley, UCLA, and UC Davis. SEA Graduates have gone on to the California State Universities, including Cal Poly and San Jose State. SEA Graduates have gone on to the Air Force Academy and Naval Academy. And SEA Graduates have gone on to private universities, including Yale, Cornell, Princeton, Embry Riddle, USC, Santa Clara, BYU, and UOP. About 75% of SEA Graduates major in engineering-related fields. But even the graduates who did not pursue engineering majors tell us that they were glad to have been in the SEA, and would recommend it to incoming students.

8. What are the requirements for entering the SEA?

First, assess your interests. The SEA's focus is space, engineering, technology, math, & science. Does this match your interests? If so, complete an SEA application. You can get an application from the West High office, or download a copy from our web site (listed below). Your acceptance is determined based on the information you provide in the application. We have a limited number of spaces available, and these usually fill up quickly. The application includes several short essay questions, and a teacher recommendation, so allow enough time to complete the application and get it turned in before the deadline.

9. How can I find out more about the SEA?

Web Site: <https://whssea.scienceboosters.org>

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