



# SCHOOL OF ENGINEERING

## OUR MISSION

To expose students to Engineering fields through curricular enhancement, mentoring relationships, and educational experiences – providing insight to His calling in their lives

## THE PROGRAM

The School of Engineering (SOE) at CVCA is a two-year curriculum designed to groom high school students to be successful, impactful Christians in an undergraduate engineering program. The curriculum touches on all major engineering disciplines and allows students to dive deeper into areas of interest through individualized projects, guest lectures, Jterm/Mterm internships, and mentoring relationships from area universities and companies.

## THE APPLICATION PROCESS

Students must apply for acceptance into the School of Engineering during the first semester of their sophomore year. Due to a limited number of spaces available in the SOE, it is best to submit your application as soon as possible.

1. Fill out SOE Application with teacher references.
2. Interview with SOE Chair.
3. Once accepted to the SOE, schedule classes with the Guidance Office.

## REQUIREMENTS

Students must pass each class to continue in the program. Students need to complete exams.

- **Engineering 1 – Fall (0.5 credit)** – Advanced Algebra is a co-requisite. Approval is required from the Engineering Department.
- **Engineering 2 – Spring (0.5 credit)** – Engineering 1 is a prerequisite and Advanced Algebra is a co-requisite. Approval is required from the Engineering Department.
- **Engineering 3 – Fall (0.5 credit)** – Engineering 2 is a prerequisite. Pre-Calculus and Physics are co-requisites. Approval is required from the Engineering Department.
- **Engineering 4 – Fall (0.5 credit)** – Engineering 3 is a prerequisite. Pre-Calculus and Physics are co-requisites. Approval is required from the Engineering Department.
- **Experiences (3 credits)** – Students participate in student-choice experiential learning opportunities that are exploratory, college-focused, and career-oriented in order to build relationships, gain hands-on skills and competencies, and prepare students for college and a career. Students need to earn three credits or experiences in order to graduate with distinction.

Schools of Distinction provide an innovative opportunity for CVCA students.

Designed for juniors and seniors, the two-year curriculum exposes students to professional fields and potential majors.

This program is in addition to CVCA's already rigorous college prep curriculum.

The Mission of all Schools of Distinction is “To expose our students to professional fields through...

- Curricular enhancements (extra classes in a specific field)
- Mentoring relationships and community partnerships (mentoring, community projects, field trips, etc.)
- Experiential learning (internships, shadowing, competitions, guest lecturers, projects, etc.)

...providing insight into His calling in their lives.”



## FEES

The School of Engineering is \$300 per year. Once accepted, a student's position is confirmed when the automatic payment is completed through their FACTS method of payment on file. Unconfirmed positions may be offered to other candidates on the list. The fees include mentoring program, internship program, guest speakers, specialized instruction, materials, and one-on-one training.

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## DISTINCTIONS

Students who complete all School of Engineering requirements receive:

- **Engineering Cord at Graduation:** Students receive an orange cord.
  - **Transcript Designation:** Students receive a special distinction on their transcript.
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## JTERM/MTERM

Students have the opportunity to shadow in engineering fields of interest during Jterm/Mterm.

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## EXPERIENTIAL LEARNING OPPORTUNITIES

Each student has the opportunity to participate in a wide variety of experiences in and out of CVCA that can be customized to their interests and goals. These *Experience Schools of Distinction* opportunities are available in three categories:

- Exploratory
- College
- Career

Through *Experience*, students have the opportunity to chart a path of high-value, customized experiences that maximize the impact of their participation in their School of Distinction. Experiences include mentoring, shadowing, internships, college visits, problem-solving challenges, attendance industry guest speaker programs, and many more. Each experience earns students credits. Each student is required to complete three credits in order to achieve distinction. They are encouraged and welcome to participate in even more.

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## INTERNSHIPS and EDUCATIONAL EXPERIENCES

Students have the opportunity to participate in internships prior to graduation as part of their Experience credits needed for distinction. In these internships, students engage in meaningful engineering projects that help provide important insight into an engineering career.

SOE students have the opportunity to participate in field trips, conferences, and competitions (Best Robotics, TEAMS Competition, West Point Bridge Builder, Robotics Competition, and National Engineering Design Competition).

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## SCHOOL OF ENGINEERING CONTACT

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