THE ENGINEERING INSTITUTE AT CENTRAL CATHOLIC

Program Overview

What is engineering? What do engineers do? Is the engineering field a good fit for me? The goal of the Engineering Institute at Central Catholic (EICC) is to provide students opportunities, through a combination of coursework, resources and outside of the classroom experiences, to answer these questions and allow them to make informed decisions about pursuing an engineering career.

EICC students will be engaged in an intellectually challenging, hands-on and relevant curriculum with coursework and experiences designed to foster creativity, problem-solving, teamwork and communication to give them exposure to engineering careers and prepare them for entry into a college engineering program.

Who Should Apply?

The EICC will be open to all 9th grade students in the 2023-2024 school year who are, or think they might be, interested in an engineering career. Students who have a diversity of skills, interests, backgrounds and abilities and who are interested in math and science, hands-on learning, creative problem solving and working together in teams are encouraged to apply. EICC students should have either completed Honors Geometry, Advanced Geometry or Honors Algebra 2 or will be enrolled in either Honors, Geometry, Advanced Geometry or Honors Algebra 2 as a Sophomore.

When Does the Program Start?

Students interested in the EICC will complete the application process during the second semester of their Freshman year. Students accepted into the EICC program will register to take EICC-1 during their sophomore year and will begin with a seminar in the summer prior to the start of sophomore year.

Curriculum and Components

Students accepted into the EICC will be part of a cohort that will complete the curricular requirements of the three-year program. EICC students will take a one-semester engineering course each of their sophomore, junior and senior years. The focus of the senior year engineering class will be the completion of a capstone design project. EICC students are also required to take four years of math and science.

Along with the EICC coursework, students will be involved in outside the classroom experiences that include guest speakers, seminars, field trips and collaboration with a professional mentor.

- ***College-Prep Curriculum***

With emphasis on Math and Science and will include critical thinking, public speaking and project-based learning skills.

- ***Math, Science and Engineering Coursework***

Required courses in math (4) and science (4) as well as three semesters of engineering-specific coursework (EICC-1, EICC-2 and EICC-3)

- ***Taught by Engineers***

With numerous years of real-world work experience in a variety of engineering fields.

- ***Seminars and Enrichment Activities***

Includes lectures, field trips and presentations outside of the classroom

- ***Mentorship Opportunities***

Students paired with engineering professionals to serve as a mentor

- ***Capstone Project***

Culminates the student's EICC experience and is the focus of the EICC-3 course taken senior year