Pre-Engineering Program

What does this program offer...

An exciting and challenging education showing how rigorous technical course concepts relate to real-world problem solutions through hands-on, project-based learning.

CCHS transcript distinction and special graduation certificate designating, “Significant Achievements in the Pre-Engineering Program.”

- Educational and exciting off-campus industry tours.
- Local, state, and national science and technology activities - Robotic competitions, workshops, seminars, and events.
- Industry internship - real-world job experiences
- Daily use and all-access to the newly re-modeled and expanded Pre-Engineering and Robotics facility
  - CNC milling machine
  - CNC plasma cutter and table
  - New desktop computers
  - Re-modeled computer room - 3D Printer
  - New CAD/CAM software

- Preparation for the challenges of college engineering courses, while developing students’ time-management and scientific analytical thinking skills, along with problem-solving techniques and technical knowledge.

- Advanced courses in Science, Technology, Engineering, and Math
  - AP Physics C
  - AP Biology
  - AP Chemistry
  - (H) Geometry
  - (H) Algebra 2 & Trig.
  - AP Computer Science A
  - AP Calculus AB or BC
  - (H) Pre-Calculus 1
  - AP Physics 1
  - Intro. to STEAM
  - Engineering Design
  - Adv. STEAM

FIRST Robotics competition CCHS Robotics team emerges as highest-ranking first-year team.
Pre-Engineering Program

Who can participate . . .

All CCHS students able and willing to:

• Formally apply with:
  - Parent’s written permission
  - Academic Advisor’s approval signature

• Complete “Pre-Engineering” courses by graduation

• Maintain the minimum GPAs
  - At least an overall “B” average for all classes
  - Achieve at least a “B” in all Pre-Engineering classes

• Participate and complete extra-curricular requirements - FIRST Robotic Competitions (FRC)
  - Industry Internship participation
  - Attend engineering events, tours, field trips, etc

Who should apply . . .

Incoming freshmen who enjoy:

- Hands-on laboratory projects and assignments
- Innovative and creative thinking
- Collaborative team and group problem solving
- Innovative instruction that is not always confined to a traditional classroom environment
- Current students may be considered on a case by case basis, based upon previous course history at CCHS.

Most importantly . . .

Students who plan to pursue an undergraduate engineering degree, or major in any science field, at a four-year college or university.

The CCHS Pre-Engineering Program is designed to provide students with the skills needed to succeed in future Science, Technology Engineering, and Mathematic degrees such as . . .

- Mechanical engineering
- Mathematics
- Electrical engineering
- Physics
- Computer science
- Mathematics

If you are interested or have any questions contact:

Mr. Michael Wallace, Pre-Engineering Program
mwallace@cathedralcatholic.org (858) 523-4000 x1413
or the Office of Admissions
admissions@cathedralcatholic.org (858) 523-4000 x1148