



Pathways to Engineering: Preparing for College

Good news! Research shows that students who start thinking about college in middle school and early high school are more likely to go to college. And, students who are preparing for college, are generally already taking the classes they'll need for admission to an engineering program. Recommended courses include:

- **Math (Four Years):** Algebra I and II, Geometry, Trigonometry, Calculus
- **Science (Four Years):** Biology, Physics, Chemistry
(Other science options for the fourth-year requirement and electives include advanced levels of Biology, Chemistry, Physics, or Ecology, Astronomy, and Earth Sciences.)
- **Language Arts (Four Years):** English
(Elective courses in this area include Speech/Debate, Communications/Media, and Journalism.)
- **Foreign Language (Three Years):** Your choice, based on what your school offers.

Other Courses and Requirements

Regardless of what colleges and majors your child is considering, they'll want to show that they are well rounded, with a wide range of experiences and knowledge. So it's also important to take courses in History/Social Studies, Geography, Computers, Social Sciences (Psychology and Sociology), and the Arts, and to get involved in extracurricular activities that they love.

High School Career Programs

Other options to consider are the many high schools programs that meet academic requirements and support career paths and clusters. Examples include:

- **Career-technical education programs**—these include computer and engineering technology, automotive and construction technology and business, health, marketing and more.
- **Dual credit**—Save time and money with classes that offer high school and college credit.
- **Cooperative Education or Youth apprenticeships**—Generally offered to juniors and seniors, these work- and school-based programs give students a chance to try out careers and jobs.
- **Advanced placement (AP)**—These courses end with an exam indicating readiness for college.

Learn more about engineering at www.discovere.org.