

Introduction to Engineering Design™ (IED) Course Description

Ever tried to design something new or draw up an idea you wanted to share with your friends and wondered how you could communicate your idea? Or, have you wondered how someone designed that new MP3 player or sleek new phone? Then Introduction to Engineering Design™ is the course for you. The major focus of the course is learning how to take an idea through a design process that will eventually be manufactured or produced. As you learn about various aspects of engineering and engineering design, such as how engineers communicate through drawing, you will apply what you learn through various activities, projects, and problems. For example, after learning about the different techniques engineers use in determining how to design a product, you and your teacher will have the flexibility to explore the design and engineering processes to solve problems that are of interest to you. The course covers the following:

- The Role of an Engineer
- The Design Process
- Product Design
- Product Analysis and Improvement
- Designing as an Engineer

In addition, you will use Inventor, which is a state of the art 3-D design software package from AutoDesk, to help you design solutions to different design projects. Working in teams, you will learn about documenting your solutions, solving problems, and communicating your solutions to other students and members of the professional community of engineering and engineering design.

Introduction to Engineering Design™ is intended to serve as a foundation course within the Project Lead The Way® course sequence. All of the topics learned in this course will be used in future courses.