

Engineering CTE Program

Introduction to Engineering Design

Course Code:	1 Credit
Prerequisite: Average of 75 or better in math or completed Automation and Robotics with average of 75 or better	Course Fee: \$15
<p>This course develops student problem solving skills, with emphasis placed upon the concept of developing a 3-D model or solid rendering of an object. Students focus on the application of visualization processes and tools provided by modern, state-of-the art computer hardware and software. This modern computer-based process complements the traditional hand drawing methods. The course will emphasize the design development process of a product and how a model of that product is produced, analyzed and evaluated, using a computer aided design system. Various design applications will be explored with discussion of possible career opportunities.</p>	

Principles of Engineering

Course Code:	1 Credit
Prerequisite: Average of 75 or better in Geometry or Algebra I	Course Fee: \$15
<p>This introductory course is a broad-based survey course designed to help students understand the field of engineering and engineering technology and its career possibilities. Students will develop engineering problem solving skills that are involved in post-secondary education programs and engineering careers. They will explore various engineering systems and manufacturing processes. They will also learn how engineers address concerns about the social and political consequences of technological change. The main purpose of this course is to experience through theory and hands-on-problem solving activities what engineering is all about and to answer the questions, "Is a career in engineering or engineering technology for me?"</p>	

Aerospace Engineering

Course Code:	1 Credit
Prerequisite: Average of 75 or better in Intro. to Engineering <u>and</u> Principles of Engineering	Course Fee: \$15
<p>Students explore the physics of flight and bring what they're learning to life through hands-on projects like designing a glider and creating a program for an autonomous space rover. Using 3-D design software, students will collaborate on engineering design problems related to the aerospace industry and encountered by aerospace engineers.</p>	

Introduction to Robotics

Course Code:	1 Credit
Prerequisite: TSA Membership and student application required	Course Fee: \$50

This one-credit course is designed to provide students with the fundamental knowledge and skills of robotics. Emphasis is placed on fundamentals of electrical current, digital circuits, electronic control systems, and the design and operation of robotic systems. This course requires an accepted application and full participation in the competitive robotics team at Auburn High. Applications can be picked up from the Robotics teacher at AJHS or Mrs. S. Sharman at AHS. Link for application:

[RoboticsApplication](https://forms.office.com/r/7uud1vempa) - <https://forms.office.com/r/7uud1vempa>