



Rough Rider Roundup

Applied Engineering

Endorsement

STEM

Overview

The Principles of Applied Engineering course is designed to develop skills needed to create advanced technical drawings and computer aided designs (CAD) programs used during the design and concept process through production. This is a project-based course incorporating basic building skills to investigate design, structure, electricity, aerodynamics and more. Students have two pathway options after this introductory course. Those include pathways in Engineering or Robotics.

Pathway for Engineering

Students following the Engineering Program of Study will be preparing and learning skills for a career in Aerospace Engineering through the application of advanced science, math, and technology. Students that begin their academic pathway with Principles of Applied Engineering will have met the prerequisite to continue their studies in Aeroscience at HCTC.

Eleventh grade – Aeroscience 1

Twelfth grade – Aeroscience 2

Pathway for Robotics

Students following the Robotics Program of Study will be preparing and learning skills for a career in Robotics through the application of advanced science, math, and technology. Students that begin their academic pathway with Principles of Applied Engineering will have met the prerequisite to continue their studies in Robotics.

Tenth or Eleventh grade – Intro to Robotics at SHS

Eleventh or Twelfth grade – Robotics 1 and 2 at HCTC

Program of Study Information

Additional information for other course details beyond the prerequisite course, Principles of Applied Engineering, can be found on the individual course guides.

[Engineering](#)

[Robotics](#)