

Engineering

Engineer your future

The Engineering career cluster focuses on planning, designing, testing, building, and maintaining of machines, structures, materials, systems, and processes using empirical evidence and science, technology, and math principles.

This pathway introduces students to careers in engineering and technology, focusing on the design, development, and improvement of mechanical systems and processes—from mechanical engineering to related technical occupations.



PROGRAMS OF STUDY

Engineering
Foundations

INTRODUCTION COURSE

Principles of Applied
Engineering

CONCENTRATION COURSE

Robotics I

CONCENTRATION COURSE

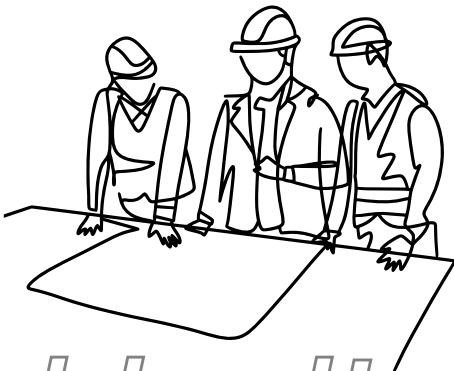
Engineering Design
and Presentation I
Robotics II
Engineering Science

ADVANCED COURSE

Engineering Design and
Presentation II
Engineering Design and
Problem Solving
Practicum in Science,
Technology, Engineering,
and Mathematics
Scientific Research and
Design

Industry-Based Certifications

- **Autodesk Associate (Certified User) Fusion 360**
- **Autodesk Associate (Certified User) Inventor for Mechanical Design**
- **Certified SOLIDWORKS Associate (CSWA) – Mechanical Design**



Exploration Activities

- Participate in SkillsUSA or TSA
- Join a local engineering association and attend meetings.

Work-based Learning

- Intern at an engineering, robotics, or aerospace company.
- Visit an engineering firm and shadow multiple types of engineers.