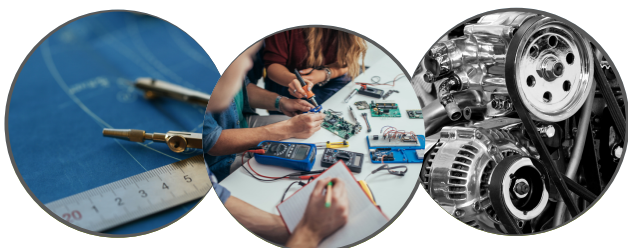


Programs of Study Information



About

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 career cluster includes occupations ranging from mechanical engineer and drafter to electrical engineer and to mapping technician.

ENGINEERING FOUNDATIONS (AEROSPACE)

Aligned Occupations

- Aerospace Engineer
- Engineering Technologist
- Mechanical Engineer
- Avionics System Safety Engineer

ENGINEERING FOUNDATIONS (DIGITAL ELECTRONICS)

Aligned Occupations

- Electrical Engineer
- AI Software Engineer
- Data Scientist

ENGINEERING FOUNDATIONS (CIVIL)

Aligned Occupations

- Civil Engineering Technologist
- Civil Engineering Technician
- Structural Engineer

Programs of Study

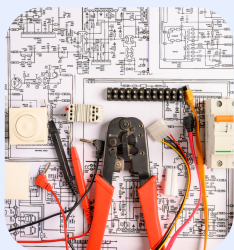
ENGINEERING FOUNDATIONS (AEROSPACE)

The Mechanical and Aerospace Engineering program of study focuses on occupational and educational opportunities associated with the design, development, maintenance, and testing of engines, machines, and structures related to aircraft and spacecraft. Students will design, test, and evaluate projects related to aerodynamics, structural, and mechanical design. This program of study includes applying scientific, mathematical, and empirical evidence to solve problems related to navigation, mechanics, robotics, propulsion, and combustion.



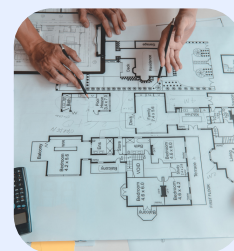
ENGINEERING FOUNDATIONS (DIGITAL ELECTRONICS)

The Electrical Engineering program of study focuses on occupational and educational opportunities associated with the design, development, testing, and supervision of electrical equipment and systems. Students will design, test, and evaluate projects related to electrical motors, radar, navigation systems, and communication systems. This program of study includes applying scientific, mathematical, and empirical evidence to solve problems in electrical systems associated with instruments, facilities, components, and equipment.



ENGINEERING FOUNDATIONS (CIVIL)

The Civil Engineering program of study focuses on occupational and educational opportunities associated with the design, build, operation, and maintenance of infrastructure related to roads, buildings, airports, bridges, and transportation systems. This program of study includes exploration of infrastructure, site inspections, feasibility assessments and scope, and cost estimates. It addresses applying scientific, mathematical, and empirical evidence to solve problems in construction, infrastructure, and the environment.





ENGINEERING

Sequence	ENGINEERING FOUNDATIONS (Aerospace)	ENGINEERING FOUNDATIONS (Digital Electronics)	ENGINEERING FOUNDATIONS (Civil)
Y1	PLTW Introduction to Engineering Design	PLTW Introduction to Engineering Design	PLTW Introduction to Engineering Design
Y2	*PLTW Principles of Engineering	*PLTW Principles of Engineering	*PLTW Principles of Engineering
Y3	*PLTW Aerospace Engineering	*PLTW Digital Electronics	*PLTW Civil Engineering & Architecture
Y4	*PLTW Engineering Design and Development	*PLTW Engineering Design and Development	*PLTW Engineering Design and Development

ALIGNED

Industry-Based

CERTIFICATIONS



- Engineering Technology Foundations