



## STEM AND Business & Industry Endorsement Science, Technology, Engineering & Math

### Engineering

The Engineering program of study focuses on the design, development, and use of engines, machines, and structures. CTE learners will learn how to apply science, mathematical methods, and empirical evidence to the innovation, design, construction, operation, and maintenance of different manufacturing systems.

Levels	Courses	
Level 1	<b>Principles of Applied Engineering</b> 9	<b>Introduction to Engineering</b> 10-11
Level 2		
Level 3	<b>Engineering Design &amp; Development</b> 10-12	<b>Computer Integrated Manufacturing</b> 10-12
Level 4	<b>Practicum in STEM</b> <i>Prerequisite: Algebra I and Geometry</i> 12 <b>+Autodesk Certified Professional or User-Inventor</b>	

Occupation	Median Wage	Annual Openings	% Growth
Aerospace Engineers	\$110,843	481	9%
Industrial Engineers	\$97,074	1,263	10%
Mechanical Engineers	\$91,107	1,535	11%
Chemical Engineers	\$112,819	474	9%
Electrical Engineers	\$98,405	1,137	10%

### Industry Based Certifications

***+Autodesk Certified Professional or User-Inventor***

This certification exam demonstrates entry-level knowledge that includes creating, modifying, formatting & sharing 2D sketches, creating parts, viewing & animating assemblies & creating presentations & drawings.

**To earn a CTE endorsement, students must take a minimum of 3 classes for 4 or more credits in the same Program of Study, and must end with one Level 3 or Level 4 CTE course.**