



COURSES

LEVEL 1

Principles of Applied Engineering
Computer Aided Drafting for Manufacturing (TBD)
Introduction to Engineering Design (PLTW)

LEVEL 2

Manufacturing Engineering Technology I

LEVEL 3

Engineering Design and Development (PLTW)
Engineering Design and Presentation I
Computer Integrated Manufacturing (PLTW)
Aerospace Engineering (PLTW)
Digital Electronics
Civil Engineering and Architecture (PLTW)
Engineering Science
Environmental Sustainability (PLTW)

LEVEL 4

Engineering Design and Problem Solving
Engineering Design and Presentation II
Practicum in STEM
Scientific Research and Design

HIGH SCHOOL/INDUSTRY CERTIFICATION	CERTIFICATE/LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/DOCTORAL PROFESSIONAL DEGREE
Autodesk Certified Professional or User (ACU) - Inventor	Engineer, Professional	Electrical and Electronics Engineering	Electrical and Electronics Engineering	Electrical and Electronics Engineering
Certified SolidWorks Associate (CSWA)	Fluid Power Systems Designer	Drafting and Design Technology/Technician, General	CAD/CADD Drafting and/or Design Technology/Technician	Mechanical Engineering
Certified Engineering Technician - Audio Systems	Certified Biomedical Auditor	Engineering Technology	Bioengineering and Biomedical Engineering	Bioengineering and Biomedical Engineering
	Certified Cost Estimator/Analyst		Construction Engineering Technology/Technician	

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit TXCTE.org.

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Aerospace Engineers	\$110,843	481	9%
Industrial Engineers	\$97,074	1,263	10%
Mechanical Engineers	\$91,707	1,535	11%
Chemical Engineers	\$112,819	474	9%
Electrical Engineers	\$98,405	1,137	10%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities: Participate in competitions like Skills USA
Career Preparation Activities: Engineering internship
Job shadow a machinist

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



The Science, Technology, Engineering, and Mathematics (STEM) Career Cluster® focuses on planning, managing, and providing scientific research and professional and technical services, including laboratory and testing services, and research and development services.

Successful completion of the Engineering program of study will fulfill requirements of the Business and Industry or STEM Endorsement.

Approved Statewide Program of Study - September 2019

