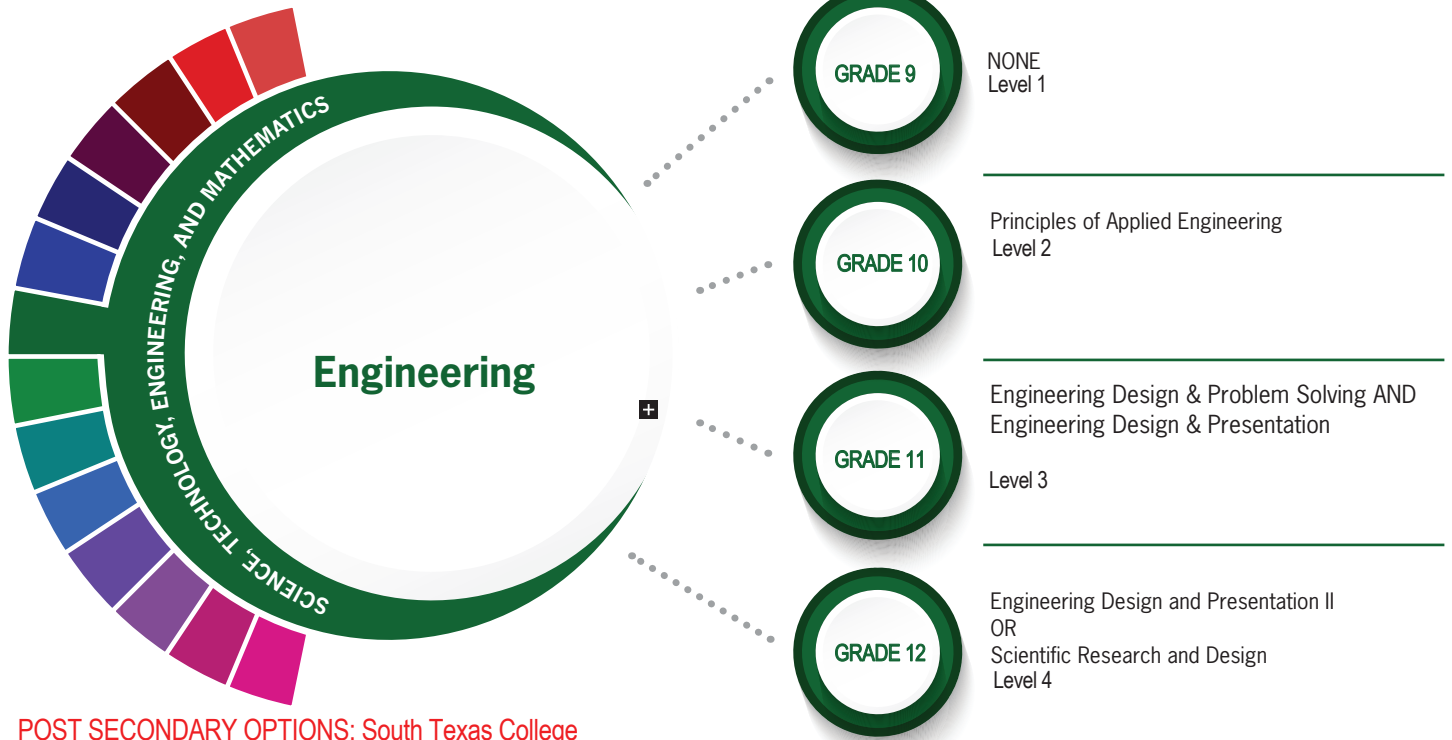


COURSES



POST SECONDARY OPTIONS: South Texas College
Dual Enrollment Opportunity

HIGH SCHOOL/INDUSTRY CERTIFICATION	CERTIFICATE/LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/DOCTORAL PROFESSIONAL DEGREE
	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 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.



It is the policy of Weslaco ISD not to discriminate on the basis of race, color, national origin, sex or handicap in its vocational programs, services or activities as required by Title VI of the Civil Rights Act of 1964, as amended; Title IX of the Education Amendments of 1972; and Section 504 of the Rehabilitation Act of 1973, as amended.

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 Modified by Weslaco ISD Career & Technical Education

COURSE INFORMATION

COURSE NAME	SERVICE ID	PREREQUISITES (PREQ) COREQUISITES (CREQ)	GRADE
Principles of Applied Engineering	13036200 (1 credit)	None	9-10
Computer Aided Drafting for Manufacturing (TBD)	TBD	TBD	TBD
Introduction to Engineering Design (PLTW)	N1303742 (1 credit)	None	9-12
Manufacturing Engineering Technology I	13032900	None	10-12
Engineering Design & Development (PLTW)	N1303749 (1 credit)	None	9-12
Engineering Design & Presentation I	13036500 (1 credit)	PREQ: Algebra I	10-12
Computer Integrated Manufacturing (PLTW)	N1303748 (1 credit)	None	9-12
Aerospace Engineering (PLTW)	N1303745 (1 credit)	None	9-12
Digital Electronics	13037600 (1 credit)	PREQ: Algebra I and Geometry	10-12
Civil Engineering & Architecture (PLTW)	N1303747 (1 credit)	None	9-12
Engineering Science	13037500 (1 credit)	PREQ: Algebra I and Biology Chemistry, Integrated Physics, and Chemistry (IPC), or Physics	10-12
Environmental Sustainability (PLTW)	N1303746 (1 credit)	None	9-12
Engineering Design & Problem Solving	13037300 (1 credit)	PREQ: Algebra I and Geometry	11-12
Engineering Design and Presentation II	13036600 (2 credits)	PREQ: Algebra I and Geometry	11-12
Practicum in Science, Technology, Engineering, and Mathematics	13037400 (2 credits) 13037405 (2 credits) 13037410 (3 credits) 13037415 (3 credits)	PREQ: Algebra I and Geometry	12
Scientific Research & Design	13037200 (1 credit)	PREQ: Biology, Chemistry, Integrated Physics, and Chemistry (IPC), or Physics	11-12

FOR ADDITIONAL INFORMATION ON THE SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS CAREER CLUSTER, PLEASE CONTACT:

<https://tea.texas.gov/cte>