

Principles of Applied Engineering

Level 1 Invention & Innovation FIRST

FOCUS

Engineering Design

Level 2 and Presentation I (3D

CAD)

Level 3 Engineering Design and Problem Solving (Engineering)

Scientific Research & Design (Robotics 3)

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	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	

	Median	Annual	
Occupations	Wage	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%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES				
Exploration Activities:	Work Based Learning Activities:			
Participate in competitions like Skills USA	Engineering internship Job shadow a machinist			

Additional industry-based certification information is available on the TEA CTE website. For more information on postsecondary options for this program of study, visit TXCTE.org.

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.



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 if the math and science requirements are met. Revised - July 2020



COURSE INFORMATION

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

Jennifer Bullock | Jennifer.Bullock@tea.texas.gov https://tea.texas.gov/cte

Eanes ISD offers career and technical education programs in Arts, A/V Technology and Communications; Business, Management and Administration; Education and Training; Human Development, Management and Services; Health Science; Information Technology, Marketing and STEM. Admission to these programs is based on interest and aptitude, age appropriateness, and class space available.

It is the policy of the Eanes Independent School District 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; the Age Discrimination Act of 1975, as amended; and Section 504 of the Rehabilitation Act of 1973, as amended. Eanes ISD will take steps to assure that lack of English language skills will not be a barrier to admission and participation in all educational and vocational programs. For information about your rights or grievance procedures, contact the following persons are designated to handle inquiries regarding non-discrimination policies:

- Title II, Section 504: Assistant Superintendent of CIA, Molly May, mmay@eanesisd.net (512) 732-9021.
- Title IX and Age Act of 1975: Assistant Superintendent for Human Resources, Laurie Lee, <u>llee@eanesisd.net</u>, (512) 732-9010. at EISD Central Administration, 601 Camp Craft Rd., Austin, TX, 78746.

Declaración de la Práctica de No Discriminar

La práctica de Eanes Independent School District es de no discriminar ya sea por raza, color, origen nacional, sexo, discapacidad, ni edad de la persona al emplear o para proporcionar educación, admisión, trato, o acceso a los beneficios de servicios educativos, actividades, y programas. Las siguientes personas han sido designadas para responder a preguntas tocantes las prácticas para evitar la discriminación:

La Ley del Título II y Sección 504 (Title II and Section 504): Director de Educación Especial, Molly May, mmay@eanesisd.net, (512) 732-9021

La Ley del Título IX y Discriminación Tocante la Edad de 1975 (Title IX and Age Discrimination Act of 1975): Asistente al Superintendente en Recursos Humanos, Laurie Lee, <u>llee@eanesisd.net</u>, (512) 732-9010

Ambos tienen sus oficinas en EISD Central Administration, 601 Camp Craft Rd., Austin, TX, 78746.