

AG MECHANICS (Applied Agricultural Engineering)



9th

10th

11th

12th

COURSES

Principles of Agriculture, Food, and Natural Resources

Agricultural Mechanics and Metal Technologies

Agricultural Structures Design & Fabrications

Practicum in Agriculture, Food, and Natural Resources

Postsecondary Options

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Welding Certification	Certified Irrigation Designer	Small Engine Mechanics and Repair Technology/ Technician		
	Certified Professional Agronomist	Heavy Equipment Maintenance Technology/ Technician	Agricultural Engineering	
	Certified Reliability Engineer	Agricultural Mechanization, General	Agricultural Mechanization, General	
	Fluid Power Mobile Hydraulic Mechanic	Welding Technology/ Welder		

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.

The Ag Mechanics pathway explores the occupations and educational opportunities associated with applying knowledge of engineering technology and biological science to agricultural problems concerned with power and machinery, electrification, structures, soil and water conservation, and processing agricultural products. This program of study may also include exploration into diagnosing, repairing, or overhauling farm machinery and vehicles, such as tractors, harvesters, dairy equipment, and irrigation systems.



The Agriculture, Food, and Natural Resources (AFNR) Career Cluster focuses on the essential elements of life-food, water, land, and air. This career cluster includes a diverse spectrum of occupations, ranging from farmer, rancher, and veterinarian to geologist, land conservationist, and florist. It also includes non-traditional agricultural occupations like wind energy, solar energy, and oil and gas production.

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Outdoor Power Equipment and Other Small Engine Mechanics	\$32,406	366	16%
Welders	\$41,350	6,171	9%
Farm Equipment Mechanics and Service Technicians	\$39,915	304	17%
Mobile Heavy Equipment Mechanics	\$47,299	1,627	16%
Agricultural Engineers	\$64,792	9	13%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities:
Tour a machinery plant
Texas FFA

Work Based Learning Activities:
Intern at a farm products or machinery plant

Successful completion of this pathway will fulfill requirements of a Business and Industry Endorsement or STEM endorsement if the math and science requirements are met.

