



Course Overview: Focuses on careers in the planning, implementation, production, management, processing, and/or marketing of agricultural commodities and services.

Power, Structural and Technical Systems

Career Goal (O*NET Code): Heavy Equipment Mechanic (49-3042), Electrical and Electronic Engineering Technician (17-3023), Farm Equipment Mechanic (49-3041), Global Data Technician (19-4041).

Student Name: _____

Grade: _____

School: _____

SUGGESTED COURSEWORK

EXTENDED LEARNING EXPERIENCES

Middle School	8th	HS Courses:	Exploring Agriculture, Food and Natural Resources		Curricular Experiences: Skills USA Texas FFA Association	Extracurricular Experiences: Agricultural Mechanics Exhibition Agriscience Fair Farm Bureau Exchange Programs National Engineering Design Competition School Newspaper Student Government UIL Academic Competitions
High School	9th	Core Courses:	English I Algebra I or Geometry Biology	World Geography Languages other than English I Physical Education		
		Career-Related Electives:	Principles of Agriculture, Food and Natural Resources			
	10th	Core Courses:	English II Geometry or Alg II Chemistry	World History Languages other than English II		
		Career-Related Electives:	Agricultural Mechanics and Metal Technologies			
	11th	Core Courses:	English III Algebra II or Pre-Cal Physics or Princ of Technology	United States History Professional Communications		
		Career-Related Electives:	Agricultural Power Systems			
12th	Core Courses:	English IV Alg III, Pre-Calculus, or AP Calculus Science Elective	Government/Economics Fine Arts	COLLEGE CREDIT OPPORTUNITIES -- High School Students should take Advanced Placement (AP), International Baccalaureate (IB), dual credit, Advanced Technical Credit (ATC), or locally articulated courses (Tech Prep), if possible. List those courses that count for college credit on your campus.		
	Career-Related Electives:	Practicum in Agriculture, Food and Natural Resources				
On-the-Job Training		Diesel Mechanic	Shop Helper	Tractor Mechanic	Professional Associations: American Society of Agricultural and Biological Engineers American Welding Society Associated General Contractors of America ASTM International Collegiate FFA Post-Secondary Agricultural Students Association	
	Certificates	Diesel Mechanic	OSHA CareerSafe	Tractor Mechanic		
Postsecondary	Associate Degrees	Agricultural Systems Management	Construction Technician	Metal Technology	Career Options: Welder Foreman Estimator	
	Bachelor Degrees	Agricultural Engineering	Agricultural Systems Management	Construction Science	Career Options: Agricultural Engineer Site Manager Contractor Extension Engineering Specialist Project Engineer	
	Graduate Degrees	Agricultural Mechanization	Agricultural & Biological Engineering		Career Options: Project Developer Risk Management Specialist	

Students may select other elective courses for personal enrichment purposes.

This plan of study serves as a guide, along with other career planning materials, for pursuing a career path and is based on the most recent information as of 2009. All plans meet high school graduation requirements as well as college entrance requirements.