



Environmental Systems Pathway



Course Overview: Focuses on careers in the production, processing, marketing, distribution, financing, and development of agricultural commodities and resources.

Career Goal (O*NET Code): Water Environment Manager (11-9199), Waste Water Manager(11-9199), Water Quality Manager (11-9199).

Student's Name: _____ **Date:** _____

School: Mabank High School **Grade:** 9th 10th 11th 12th AR

Primary Endorsement: Business & Industry **Additional Endorsements:** Arts & Humanities Multidisciplinary
 Public Service STEM

Parent's Signature: _____ **Student's Signature:** _____

SUGGESTED COURSEWORK

EXTENDED LEARNING EXPERIENCES

Middle School	8th	HS Courses:	Algebra I Art I Health	Spanish I Touch Systems Data Entry	<p>Curricular Experiences:</p> <p>Texas FFA Association</p> <p>Career Learning Experiences: Apprenticeship Career Preparation Internship Job Shadowing</p> <p>Extracurricular Experiences: Agriscience Fair Farm Bureau Exchange Programs School Newspaper Student Government UIL Academic Competitions Yearbook</p> <p>Service Learning Experiences: Adopt a Highway Adopt a Beach Boy/Girl Scouts Campus Service Organizations Community Service Volunteer Peer Mentoring/Peer Tutoring</p>
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 IPC or Chemistry	World History Languages other than English II	
		Career-Related Electives:	Wildlife, Fisheries & Ecology Management		
	11th	Core Courses:	English III Algebra II, Math Models, or Pre-Cal	United States History Languages other than English III	
Career-Related Electives:		Aquatic Science & Practicum in Ag, Food & Natural Resources (Internship Only) or Project Based Research I			
12th	Core Courses:	English IV Alg II, Pre-Calculus, AP Calculus	Government/Economics Fine Arts Languages other than English IV		
	Career-Related Electives:	Advanced Environmental Systems Practicum in Ag, Food & Natural Resources II (Internship Only) or Project Based Research II			
Postsecondary	Practicum and/or Work-Based Experiences	Community Water System Employee Municipal Water Department Technician	Rural Water Supply Coop Employee Rural Water Supply Technician	Water Well Driller's Helper	<p>COLLEGE CREDIT OPPORTUNITIES -- High School</p> <p>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.</p> <p>Professional Associations: Collegiate FFA</p>
	Certificates	Wastewater Collections, Class I	Water Operators, Class D	OSHA CareerSafe	
	NOTE: These experiences may be started and/or completed as part of the high school experience.				
Postsecondary	Associate Degrees				Career Options: NRCS Technician
	Bachelor Degrees	Agricultural & Bio Engineering Agricultural Systems Management	Environmental Systems Integrated Resource Management	Wind Energy	Career Options: Agricultural Researcher Agricultural Systems Manager
	Graduate Degrees	Bioenvironmental Science Environmental Studies	Renewable Natural Resources	Wind Science and Engineering	Career Options: Education Specialist NRCS Lead Researcher

This program of study (POS) serves as a guide, along with other college and career planning materials, for pursuing college and career goals. POS developed 2017. A Business & Industry endorsement as defined in 19 TAC 74.13(f)(2)(A) requires a coherent sequence of courses for four or more credits in career and technical education (CTE) that consists of at least two courses in the least one advanced CTE same career cluster, including at course, which includes any course that is the third or higher course in a sequence. The final courses in the sequence must be obtained from one of the Agriculture, Food and Natural Resources career cluster.