



Science, Technology, Engineering & Mathematics

**Cluster Overview:** Planning, managing, and providing scientific research and professional and technical services

# Science and Mathematics



TEXAS CTE  
Your journey starts here.

**Career Goal (O\*NET Code):** [Chemical Engineer \(17-2041\)](#), [Environmental Science Protection Technician \(19-4091\)](#), [Environmental Scientist \(19-2041\)](#), [Microbiologist \(19-1022\)](#), [Agricultural Technicians \(19-4011\)](#), [Geoscientists \(19-2042\)](#)

**Student's Name:** \_\_\_\_\_ **Date:** \_\_\_\_\_

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

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

**Parent's Signature:** \_\_\_\_\_ **Student's Signature:** \_\_\_\_\_

## SUGGESTED COURSEWORK

<b>Middle School</b>	8th	<b>HS Courses:</b>	Algebra I Art I Health	Spanish I Touch Systems Data Entry
	9th	<b>Core Courses:</b>	English I Pre-AP Geometry Pre-AP Biology	World Geography Languages other than English I Physical Education
<b>Career-Related Electives:</b>		Business Information Management I		
<b>High School</b>	10th	<b>Core Courses:</b>	English II Pre-AP Algebra II Pre-AP Chemistry	World History Languages other than English II
		<b>Career-Related Electives:</b>		
	11th	<b>Core Courses:</b>	English III Pre-AP Calculus Pre-AP Physics	United States History Languages other than English III
		<b>Career-Related Electives:</b>		
12th	<b>Core Courses:</b>	English IV AP Calculus AP Physics	Government/Economics Fine Arts Languages other than English IV	
	<b>Career-Related Electives:</b>			

## EXTENDED LEARNING EXPERIENCES

<p><b>Curricular Experiences:</b></p> <p><a href="#">BEST Robotics, Inc.</a> <a href="#">Project Lead the Way</a> <a href="#">Skills USA</a> <a href="#">Technology Student Association</a> <a href="#">The Infinity Project</a></p> <p><b>Career Learning Experiences:</b></p> <p>Apprenticeship Career Preparation Internship Job Shadowing</p>	<p><b>Extracurricular Experiences:</b></p> <p>Destination ImagiNation Engineering by Design FIRST Robotics Competition International Bridge Building Contest Junior Engineering Technical Society UIL Academic Competitions VEX Robotics Competition</p> <p><b>Service Learning Experiences:</b></p> <p>Campus Service Organizations Community Service Volunteer Peer Mentoring / Peer Tutoring</p>
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## COLLEGE CREDIT OPPORTUNITIES -- High School

Students should take Advanced Placement (AP), International Baccalaureate (IB), dual credit, Advanced Technical Credit (ATC), or locally articulated credit courses, if possible. List those courses that count for college credit on your campus.

<b>Postsecondary</b>	Practicum and/or Work-Based Experiences	Central Services Technician    Laboratory Assistant    Production Operator		
	Certificates	Autodesk AutoCAD 2008    Electronics Technicians Association International    OSHA CareerSafe		
<b>Postsecondary</b>	Associate Degrees	<a href="#">Cluster Foundation</a> <a href="#">Program of Study (POS) Specific Courses</a> <a href="#">15 hrs General Ed Curriculum</a>		
	Bachelor Degrees	<a href="#">Applied Mathematics</a> <a href="#">Information Science</a> <a href="#">Biology</a> <a href="#">Mathematics</a> <a href="#">Chemistry</a> <a href="#">Physical Science</a> <a href="#">Geological and Related Science</a>		
	Graduate Degrees	<a href="#">Analytical Chemistry</a> <a href="#">Climatology</a> <a href="#">Mathematics</a> <a href="#">Applied Mathematics</a> <a href="#">Information Science</a> <a href="#">Physical Science</a> <a href="#">Biology</a> <a href="#">Geological and Related Science</a> <a href="#">Toxicology</a>		

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 Public Service 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 Health Science career cluster.