



## Highlands P-TECH Engineering Crosswalk Class of 2026



Program of Study	IHE Partner	Expected Program Student Outcomes	
<b>Engineering</b>	<b>Alamo College District: St. Philip's College</b>	<b>Year 4: Industry-Based Certification</b>	<b>Autodesk Inventor and AutoCAD</b>
		<b>Year 4: Calculus Ready</b>	<b>Completion of Calculus 1</b>
		<b>Year 5: Associate of Science (A.S.)</b>	<b>Pre-Engineering Emphasis</b>

Year / Grade Level	High School Course			Post-Secondary Course			
	PEIMS Course #	High School Course Name	High School Credits	Texas Common Course Numbering System Number	College Course Name	College Credit Hours	TSI & Pre-requisite requirements
Year 0 / Grade 8		Summer Bridge/TSI Boot camp					
<b>Total Year 0 High School Credits</b>			<b>0.0</b>	<b>Total Year 0 College Credit Hours</b>		<b>0.0</b>	
Year 1 / Grade 9	03220100	English I or English I HON	1.0				
Year 1 / Grade 9	03100500/ 03100700	Algebra 1 or Geometry HON	1.0				
Year 1 / Grade 9	03010200	Biology or Biology HON	1.0				
Year 1 / Grade 9	03340400	World Geography or Human Geography AP	1.0				
Year 1 / Grade 9	03440100/ 03980100	LOTE- Spanish I/II or ASL I/II	1.0				
Year 1 / Grade 9	N1290001	AVID I	1.0				
Year 1 / Grade 9	PES00052	Elective/PE	1.0				
Year 1 / Grade 9	N1290050	P-TECH College & Career Readiness	1.0				
<b>Total Year 1 High School Credits</b>			<b>8.0</b>	<b>Total Year 1 College Credit Hours</b>		<b>0.0</b>	
Year 2 / Grade 10	03220200	English II or English II HON	1.0				
Year 2 / Grade 10	03100700/ 03102540	Geometry or Algebraic Reasoning for P-TECH	1.0				
Year 2 / Grade 10	03060201	Integrated Physics & Chemistry for P-TECH	1.0				
Year 2 / Grade 10	03340400	World History	1.0				
Year 2 / Grade 10	03440200/ 03980200	LOTE- Spanish II or ASL II	1.0				
Year 2 / Grade 10	03500110/ 03155600	Art or Music Appreciation DC	1.0	ARTS 1301/1306	Art or Music Appreciation	3	None
Year 2 / Grade 10	N1290002	AVID II	1.0				
Year 2 / Grade 10	13036500	Engineering Design and Presentation I	1.0				
<b>Total Year 2 High School Credits</b>			<b>8.0</b>	<b>Total Year 2 College Credit Hours</b>		<b>3.0</b>	



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Year / Grade Level	High School Course				Post-Secondary Course		
	PEIMS Course #	High School Course Name	High School Credits	Texas Common Course Numbering System Number	College Course Name	College Credit Hours	TSI & Pre-requisite requirements
Year 3/ Grade 11	03220300	English III DC	1.0	ENGL 1301	Composition I	3	COLLEGE LEVEL ENGLISH
				ENGL 1302	Composition 2	3	ENGL 1301
Year 3/ Grade 11	03100600	Algebra II DC	1.0	MATH 1414	College Algebra	4	COLLEGE LEVEL MATH
Year 3/ Grade 11	03101100	Pre-Calculus DC	1.0	MATH 2412	Pre-Calculus	4	MATH 1414
Year 3/ Grade 11	03040000	Chemistry DC	1.0	CHEM 1411	General Chemistry I	4	MATH 1414
Year 3/ Grade 11 Year 3/ Grade 11	03340100	US History	1.0	HIST 1301	US History I	3	None
				HIST 1302	US History II	3	None
Year 3/ Grade 11	N1290030	AVID III	1.0				
Year 3/ Grade 11	13037300	Engineering Design & Problem Solving	1.0				
<b>Total Year 3 High School Credits</b>			<b>8.0</b>	<b>Total Year 3 College Credit Hours</b>		<b>24.0</b>	
Year 4/ Grade 12	03220400	English IV	1.0				
Year 4/ Grade 12	A3100101	Calculus AP/DC	1.0	MATH 2413	Calculus	4	MATH 1414
Year 4/ Grade 12	03050000	Physics I DC	1.0	PHYS 2425	University Physics I	4	MATH 2413
Year 4/ Grade 12	03330100 & 03380002	Government and Special Topics	1.0	GOV 2306	Texas Government	3	None
				GOV 2305	Federal Government	3	None
Year 4/ Grade 12	03310300 & 03380022	Economics and Special Topics	1.0	ECON 2302	Principles of Microeconomics	3	None
Year 4/ Grade 12	N1290033	AVID IV	1.0				
Year 4/ Grade 12	13036600	Engineering Design and Presentation II	2.0	ENGR 1201	Introduction to Engineering	2	MATH 1414
				ENGR 2304	Computer Programming for Engineering	3	MATH 2413
<b>Total Year 4 High School Credits</b>			<b>8.0</b>	<b>Total Year 4 College Credit Hours</b>		<b>22.0</b>	
<b>Total High School Credits</b>			<b>36.0</b>	<b>Total College Credit Hours</b>		<b>49.0</b>	
<b>High School Graduation Ceremony**</b>				<b>Industry-Based Certification: Autodesk AutoCAD &amp; Inventor 44 College Core Credits Transferrable to Texas Public Universities</b>			

Year / Grade Level	High School Course				Post-Secondary Course		
	PEIMS Course #	High School Course Name	High School Credits	Texas Common Course Numbering System Number	College Course Name	College Credit Hours	TSI & Pre-requisite requirements
Year 5/ Grade 13		<i>TBD Student reports to <u>college</u> campus only.</i>		Additional Engineering Courses			
Year 5/ Grade 13				Core Subject Remediation or AS Degree Completion			
<b>Total Year 4 High School Credits</b>			<b>3.0*</b>	<b>Total Year 4 College Credit Hours</b>		<b>11.0*</b>	
<b>Total High School Credits</b>			<b>39.0*</b>	<b>Total College Credit Hours</b>		<b>60.0*</b>	
<b>High School Diploma</b> <i>**Student can elect to end participation after Year 4 and receive diploma if all HS requirements have been met</i>				<b>Associate of Science Degree</b> <i>*Courses and outcomes vary by student interest and goals</i>			