



Highlands P-TECH Engineering Crosswalk



ALAMO COLLEGES DISTRICT
St. Philip's College

Program of Study	IHE Partner	Expected Program Student Outcomes
Engineering	Alamo Colleges District: St. Philip's College	Associate of Science Emphasis in Engineering (Pre-Mechanical, Pre-Electrical)
		Industry-Based Certification: Autodesk AutoCAD Industry-Based Certification: Autodesk Inventor

Year / Grade Level	High School Course			Post-Secondary Course			
	PEIMS Course/ Code #	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					
Year 1 / Grade 9		English I Pre- AP	1.0				
Year 1 / Grade 9		Algebra 1 or Geometry Pre-AP	1.0				
Year 1 / Grade 9		Biology Pre-AP	1.0				
Year 1 / Grade 9		World Geography or AP Human Geography	1.0				
Year 1 / Grade 9		LOTE- Spanish I/Spanish II/ ASL I	1.0				
Year 1 / Grade 9		AVID I	1.0				
Year 1 / Grade 9		Elective	1.0				
Year 1 / Grade 9		Principles of Applied Engineering	1.0				
SUMMER		Summer Bridge PE and/or Geometry	1.0				
Total Year 1 High School Credits			9.0	Total Year 1 College Credit Hours		0	
Year 2 / Grade 10		English II Pre- AP	1.0				
Year 2 / Grade 10		Algebra II	1.0				
Year 2 / Grade 10		Science	1.0				
Year 2 / Grade 10		LOTE- Spanish II/Spanish III/ASL II or Elective	1.0				
Year 2 / Grade 10		AVID II	1.0				
Year 2 / Grade 10		Art/Music Appreciation	0.5	ARTS 1301/ MUSI 1306	Art/Music Appreciation	3	TSI R/W 310
Year 2 / Grade 10		Academic Mentoring	0.5				
Year 2 / Grade 10		Elective or Geometry	1.0				
Year 2 / Grade 10		Engineering Design I	1.0				
SUMMER		World History	1.0				
Total Year 2 High School Credits			9.0	Total Year 2 College Credit Hours		3.0	

Current as of 04-01-2021. All crosswalks are updated yearly and are subject to change based on degree plans and course offerings at both institutions.



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	PEIMS Course/ Code #	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		Chemistry DC	1.0	CHEM 1411	General Chemistry I	4	Pre req. MATH 1414
Year 3/ Grade 11		US History DC	1.0	HIST 1301	United States History 1	3	COLLEGE LEVEL ENGLISH
				HIST 1302	United States History 2	3	COLLEGE LEVEL ENGLISH
Year 3/ Grade 11		AVID III	1.0				
Year 3/ Grade 11		English III DC	1.0	ENGL 1301	Composition I	3	COLLEGE LEVEL ENGLISH
				ENGL 1302	Composition 2	3	Pre-req. ENGL 1301
Year 3/ Grade 11		Pre-Calculus DC	1.0	MATH 1414	College Algebra (Pre-calculus track)	3	COLLEGE LEVEL MATH
				MATH 2412	Pre-Calculus	4	Pre req. MATH 1414
Year 3/ Grade 11		Speech DC or Elective	1.0	SPCH 1315*	Public Speaking	3	TSI R/W 310
Year 3/ Grade 11		Elective	1.0				
Year 3/ Grade 11		Engineering Design and Problem Solving	1.0				
SUMMER		Economics DC	0.5	ECON 2302*	Principles of Microeconomics	3	TSI R/W 310
Total Year 3 High School Credits			8.0	Total Year 3 College Credit Hours		30.0	
Year 4/ Grade 12		Technical Writing DC or Elective	1.0	ENGL 2311*	Technical Writing	3	Pre-req. ENGL 1301
Year 4/ Grade 12		English IV DC or Elective	1.0	ENGL 2322*	British Literature I	3	Pre-req. ENGL 1301 & ENGL 1302
				ENGL 2323*	British Literature II	3	Pre-req. ENGL 1301 & ENGL 1302
Year 4/ Grade 12		Calculus I DC	1.0	MATH 2413	Calculus I	4	MATH 2412
Year 4/ Grade 12		AVID IV	1.0				
Year 4/ Grade 12		Physics DC	1.0	PHYS 2425	University Physics I	4	MATH 2413
Year 4/ Grade 12		Government DC/ Special Topics DC	1.0	GOV 2306	Texas Government	3	COLLEGE LEVEL ENGLISH
				GOV 2305	Federal Government	3	COLLEGE LEVEL ENGLISH
Year 4/ Grade 12		Engineering Design II	2.0	ENGR 1201	Intro to Engineering	2	Pre req. MATH 1414
				ENGR 1304* OR	Engineering Graphics OR	3	MATH 1414
				ENGR 2304*	Computer Programming for Engineering Applications	3	MATH 2413
Total Year 4 High School Credits			8.0	Total Year 4 College Credit Hours		28.0	
SUMMER or Year 5/ Grade 13		Calculus II DC	1.0	MATH 2414	Calculus II	4	MATH 2413
Total High School Credits			34.5	Total College Credit Hours		65.0	

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Engineering Crosswalk**



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**DC Courses in Red will be selected based on student's planned major and University goals to allow for maximum degree applicable credits. [SPC Transfer Advising Guides](#) will be used to advise students on their best course pathway. Course location (Highlands HS or SPC Campus) will vary and will be announced each year.*

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