



Cyber P-TECH USA at Sam Houston HS Crosswalk



Program of Study	IHE Partner	Program Offered in 2018-2019? (Y/N)	Expected Program Student Outcomes			
Cyber Security/Information Technology	St. Philip's College	N	Acquisition of several certifications and degree in program of study			
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
Year 0 / Grade 8	03100500	Algebra I	1			
Total Year 0 High School Credits			0-1	Total Year 0 College Credit Hours		0
Year 1 / Grade 9	03220100	English I/ PAP English I	1			
Year 1 / Grade 9	03100500/03100600	Algebra I/Algebra II	1			
Year 1 / Grade 9	A3360100	World Geo/AP Human Geography	1			
Year 1 / Grade 9	03010207	Biology/PAP Biology	1			
Year 1 / Grade 9	03580850/ 7729D3	Foundations of Cybersecurity	1	1308	ITNW 1308- Implementing & Supporting Client Operating Systems	3
Year 1 / Grade 9	N1290001	AVID	1			
Year 1 / Grade 9		Foreign Language (<i>i.e. Spanish I</i>)	1			
Year 1 / Grade 9		Elective/P.E.	1			
Total Year 1 High School Credits			8	Total Year 1 College Credit Hours		3
Year 2/ Grade 10	03220200	English II/ PAP English II	1			
Year 2/ Grade 10	03100600/03100600	Algebra II/Geometry	1			
Year 2/ Grade 10	A3370100	World History/AP World History	1			
Year 2/ Grade 10	03010207	Chemistry/PAP Chemistry	1			
Year 2/ Grade 10	13027410/ 7716	Networking/ Lab	2	1425 AND 2412	ITNW 1425 – Fundamentals of Networking Tech. and ITNW 2412 Routers	4 AND 4
Year 2/ Grade 10	A3580300/ 2747	AP Computer Science Principles	1	1336 AND 1316	COSC 1336 Programming Fundamentals and ITSC 1316 Linux Installation and Configuration	3 AND 3
Year 2/ Grade 10		Fine Art	1			
Year 2/ Grade 10		Foreign Language (<i>e.g. Spanish II</i>)	1			
Year 2/ Grade 10		Elective (<i>e.g. Art I</i>)	1			
Total Year 2 High School Credits			10	Total Year 2 College Credit Hours		14
Year 3/Grade 11	03220300	English III/AP English III	1	1301/1302	English Comp. I/English Comp. II	3
Year 3/Grade 11	03100600/03101100	Algebra II/PAP Pre-Calc.	1			
Year 3/Grade 11	A3340100	US History/AP US History	1	1342 AND 2301	ITSY 1343 – Information Technology Security AND ITSY 2301 – Firewalls and Network Security	3 AND 3
Year 3/Grade 11	03050000	Physics	1			
Year 3/Grade 11	N1302803/ 7718D	Internetworking I	1	1413 AND 2405	ITNW1413 Computer Virtualization AND ITNW 2405 – Network Administration	4 AND 4
Year 3/Grade 11	13028000/ 7721	Practicum of IT I	2			
Year 3/Grade 11	03350100	Psychology	0.5	2301	General Psychology	3
Year 3/Grade 11		Elective (<i>e.g. Music I</i>)	1			
Total Year 3 High School Credits			8.5	Total Year 3 College Credit Hours		20
Year 4/Grade 12	03220400	English IV/AP English IV	1	1301/1302	English Comp. I/English Comp. II	3
Year 4/Grade 12	A3100101	PreCal/AP Calculus AB	1	1314	College Algebra	3
Year 4/Grade 12	A3310200/A3330100	Eco/AP Eco & AP US Gov't/Gov't	(1)			
Year 4/Grade 12	A3010200	Anatomy and Physiology/AP Biology	1			
Year 4/Grade 12	N1302804/ 7727D3	Fall Internetworking II	1	2442 AND 2443	ITSY 2442 – Incident Response and Handling AND ITSY 2443 – Computer System Forensics	4 AND 4
Year 4/Grade 12	03580360/ 2708D3	Spring Digital Forensics	1	2430 AND 2286	ITSY 2430 – Intrusion Detection AND ITSY 2286 – Internship, Computer & Information Systems Security	4 AND 2
Year 4/Grade 12	13028010/ 7728D	IT Practicum II	2			
Year 4/Grade 12	03241400	Communications Applications	0.5	1321	SPCH – Business & Professional Communication	3
Year 4/Grade 12	03150200	Elective (<i>e.g. Music II</i>)	1			
Total Year 4 High School Credits			9.5	Total Year 4 College Credit Hours		23
Optional Year 5					<i>Relevant or Core College Course</i>	3
Optional Year 6						
Total Years 5 & 6 High School Credits				Total Years 5 & 6 College Credit Hours		3
Total High School Credits			36	Total College Credit Hours		63

Certification (s) to be earned by high school graduation:	Information Technology (IT) Specialist (OSA); CompTIA Linux+ Certification Preparation (OSA); CompTIA Security+ Certification Preparation (OSA); Cyber First Responders (OSA); and IT Cyber Security Specialist Level I Certification
Degree (s) to be earned by high school graduation:	Information Technology Cyber Security Specialist, AAS

Information Technology Cybersecurity Specialist, A.A.S Degree
 St. Philip's College
 Science and Technology Institute
 Business Information Solutions Department

9th grade

Industry Certification	High School Course Name	Fall Course	Spring Course
CompTIA IT Fundamentals Prep	Foundations of Cybersecurity (9-10) (7729D3) 03580850 (1 credit)	None	ITNW 1308 – Implementing and Supporting Client Operating Systems

10th Grade

Industry Certification	High School Course Name	Fall Course	Spring Course
CompTIA Network + Cisco CCNA	Networking / Lab 10-12 (7716) PEIMS 13027410 (2 crs)	ITNW 1425 -Fundamentals of Networking Technologies	ITNW 2412 - Routers
CompTIA Linux+	AP Computer Science Principles (9-12) (2747) A3580300 (1 credit) Recommend to take AP exam	ITSC 1316 - Linux Installation and Configuration	COSC 1336 - Programming Fundamentals I

Occupational Skills Award: Information Technology Specialist (OSA) in the Spring

11th Grade

Industry Certification	High School Course Name	Fall Course	Spring Course
CompTIA Security+ CCNA Security	Internetworking I (7718D) N1302803 (1 credit)	ITSY 1342 -Information Technology Security	ITSY 2301 -Firewalls and Network Security
	(12) Practicum of Information Technology I (7721) 13028000 (2 credit) (7722) 13028005 (3 credit)	ITNW 1413 - Computer Virtualization	ITNW 2405 -Network Administration

Occupational Skills Award: CompTIA Security+ Certificate Preparation (OSA) in the Spring
Level 1 Certificate: Information Technology Cybersecurity Specialist – Level 1 Certificate in Spring

12th Grade

Industry Certification	High School Course Name	Fall Course	Spring Course
	Internetworking II (1.0) (7727D3) N1302804 (Fall Double blocked) Digital Forensics (9-12) (2708D1) 03580360 (.5 credit), (2708D3) 03580360 (1.0 credit) (Spring Double blocked)	ITSY 2442 -Incident Response and Handling	ITSY 2443 -Computer System Forensics
	Practicum of IT II (12) (7728D) 13028010 (2 credit)	ITSY 2430 -Intrusion Detection	ITSY 2286 Internship - Computer and Information Systems Security

Occupational Skills Award: Cyber First Responders (OSA) in Spring
Info Tech Degree: Information Technology Cybersecurity Specialist , A.A.S in Spring

Work-based education is an educational strategy that provides students with real-life work experiences where they can apply academic and technical skills and develop employability skills. Work-based education experiences for the P-TECH program should be provided at every grade level and should be appropriate in scope for the age of the student. Examples of work-based learning experiences are: job shadowing, cooperative education, career mentoring, internships, apprenticeships and can be paid or unpaid.

Year / Grade Level	Work-based Education Example # 1			Work-based Education Example # 2			Work-based Education Example #3		
	Work-based Education Example #1	Type of Activity	Business Partner	Work-based Education Example #2	Type of Activity	Business Partner	Work-based Education Example #3	Type of Activity	Business Partner
Year 1 / Grade 9	<i>Advancement Via Individual Determination (AVID)</i> provides students with skills to be successful in college	<ul style="list-style-type: none"> - Professional Skills - Job Shadowing - Internships - Project-Based Learning (PBL) - Guest Speakers 	Accenture Federal Services STEMuli	Mentoring and industry-specific instruction including industry trends, data, PBL scenarios, and related projects	<ul style="list-style-type: none"> - Professional Skills - Field Experiences 	STEMuli Tech Skills on Wheels	Program recruitment and academic excellence events for tier 1 universities	<ul style="list-style-type: none"> - Professional Skills - Academic Success - College Field Experiences 	Mims Institute
Year 2/ Grade 10	Program recruitment and academic excellence events for tier 1 universities	<ul style="list-style-type: none"> - Professional Skills - Academic Success - College Field Experiences 	Mims Institute	<i>Skills to Succeed</i> uses advanced learning technologies to close employment/ skills gap	<ul style="list-style-type: none"> - Professional Skills - Job Shadowing - Internships - Project-Based Learning (PBL) - Guest Speakers 	Accenture Federal Services	Mentoring and industry-specific instruction including industry trends, data, PBL scenarios, and related projects	<ul style="list-style-type: none"> - Professional Skills - Field Experiences 	Tech Skills on Wheels
Year 3/Grade 11	Guest speakers will collaboratively engage students in industry-related topics and problem-solving	<ul style="list-style-type: none"> - Internships - Guest Speakers - Job Shadowing 	SA Works	<i>Cyber Patriot</i> support for education in cybersecurity	<ul style="list-style-type: none"> - Project Based Learning - Professional Skills 	DC Industries	AVID, college-level course work, <i>Skills to Succeed</i> , & Mentorship	<ul style="list-style-type: none"> - Professional Skills - Job Shadowing - Internships - Project-Based Learning (PBL) - Guest Speakers 	Accenture Federal Services
Year 4/Grade 12	AVID, college-level course work, <i>Skills to Succeed</i> , & Mentorship	<ul style="list-style-type: none"> - Professional Skills - Job Shadowing - Internships - Project-Based Learning (PBL) - Guest Speakers 	Accenture Federal Services	Cyber P-TECH USA students will annually participate in a hands-on job shadow experience	<ul style="list-style-type: none"> - Internships - Guest Speakers - Job Shadowing 	SA Works	<i>Cyber Patriot</i> support for education in cybersecurity	<ul style="list-style-type: none"> - Project Based Learning - Professional Skills 	DC Industries
Optional Year 5	<i>Continued Work-based Learning Experiences, as appropriate, for students enrolled in Cyber P-TECH USA at St. Philip's College.</i>								
Optional Year 6	<i>Continued Work-based Learning Experiences, as appropriate, for students enrolled in Cyber P-TECH USA at St. Philip's College.</i>								