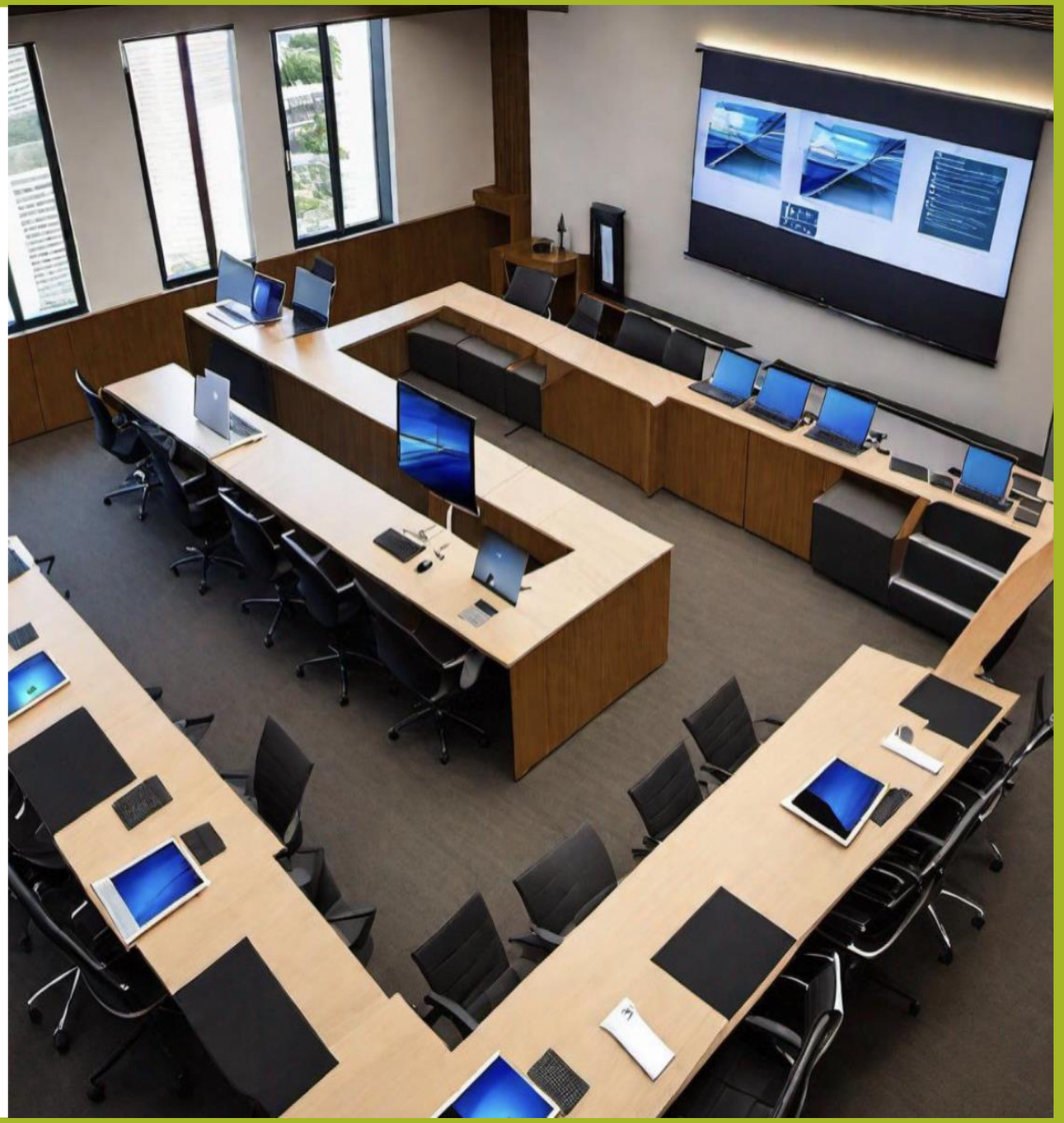
Sam Houston High School

PTECH

STEERING COMMITTEE PRESENTATION

Presenter: Zak Abbas
Location: St. Philip’s College
Date: October 31, 2023
Time: 1:00 pm

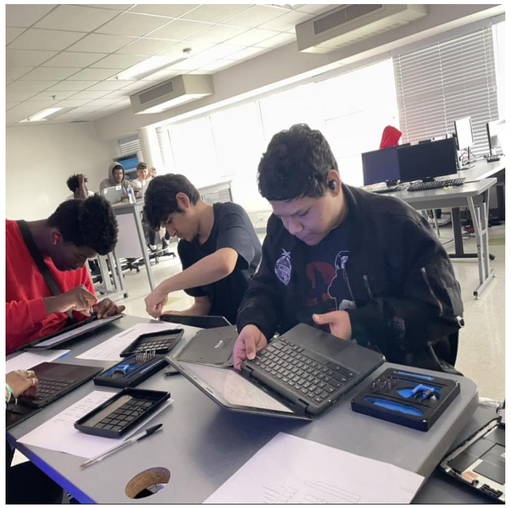
www.saisd.net

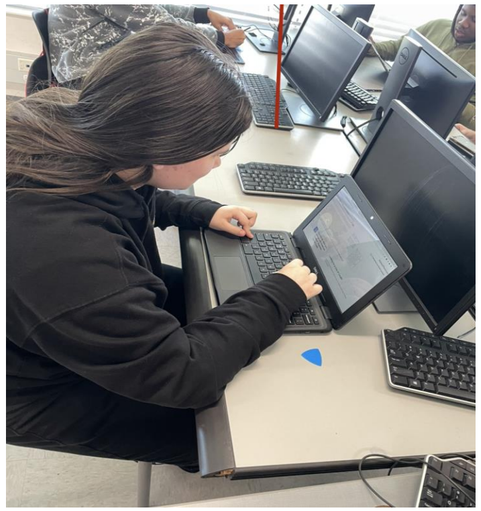


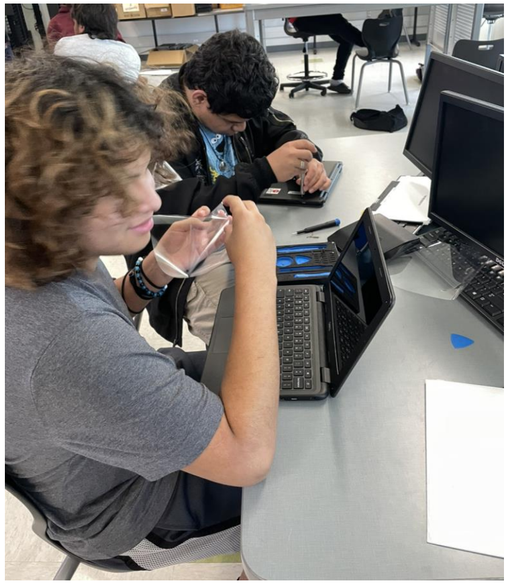
THREE P’s

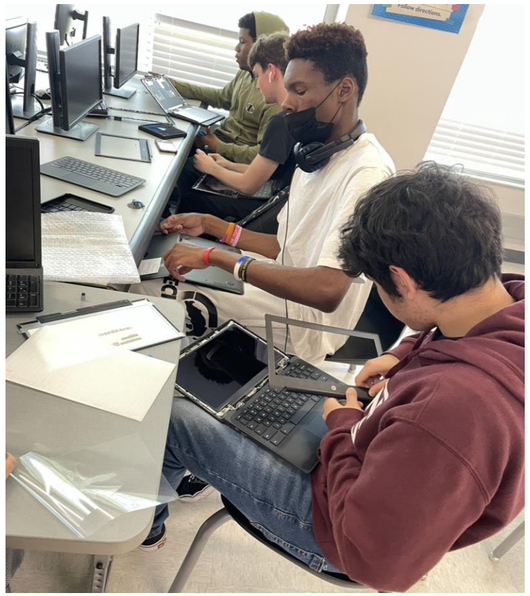
Purpose	Process	Payoff
To ensure students obtain Industry Based Certifications, Professional Certifications, and Associate Degrees that lead to careers and college readiness after high school in a pathway of technology.	To provide information about the program’s potential and come to a mutual agreement on best practices as they related to Cyber P-TECH USA.	Students are provided with all resources needed to move into high yielding careers in Cybersecurity or Information Technology after high school graduation.

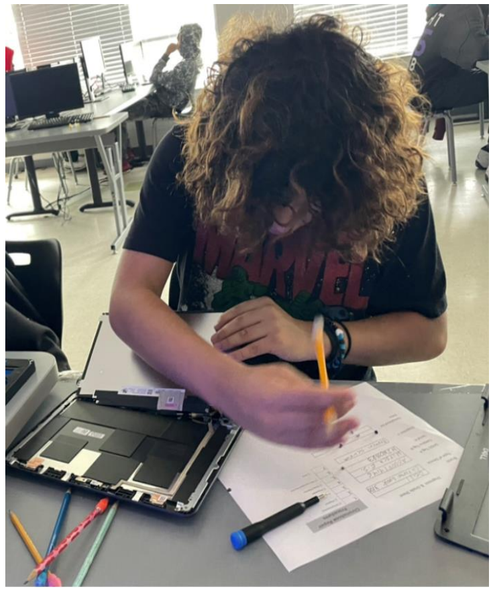
Student Success Stories











These Juniors are in their second year as part of the Tech Team. They get training from the district IT department on repairing various models of chrome books. They then spend one P-TECH class period a week on independently repairing broken campus and district devices.

Last year they repaired over 200 devices, and this year, they have already fixed the first batch of broken chrome books received from the campus librarian.

BENCHMARK 1: SCHOOL DESIGN

The Pathways in Technology Early College High School (P-TECH) shall establish school structures and policies, regularly convene leadership teams, and ensure adequate staff capacity for the successful implementation and sustainability of the P-TECH program.

1.2 **School Location**	**School within a School Model** 4635 E. Houston Street San Antonio, Texas 78220
1.3 **Student Cohorts**	Numbers only include EARNED, not projected.

Cohort	Total	AAS	Cybersecurity Specialist Level 1	Security+ (OSA)
2024	20	0	7	16
2025	15	0	0	5
2026	7	0	0	0
Total	**42**	0	7	21

BENCHMARK 1: SCHOOL DESIGN

The Pathways in Technology Early College High School (P-TECH) shall establish school structures and policies, regularly convene leadership teams, and ensure adequate staff capacity for the successful implementation and sustainability of the P-TECH program.

1.6	**Leadership Team Strategic Priorities**	• Conducting Bi-weekly ECHS/P-TECH Check-ins with updates • Devising strategic priorities for P-TECH campus and program • Ensuring DEI (Diversity, Equity & Inclusion) • Providing technology resources professional development
1.7	**Leadership Team Key Roles**	• Dr. Johnny Vahalik, Assistant Superintendent – CCMR • Christina Mank-Allen, CTE Director • Yvonne Benton, District P-TECH Coordinator • Brian Goethe, CTE Coordinator • Brenda Burmeister, Work Based Learning Coordinator • Ruby Pena, Dual Credit Coordinator
1.8	**Campus & P-TECH Team**	• Dr. Nakieshia Bibbs, Principal • Kandace Merchant, Assistant Principal • Zakia Abbas, P-TECH Coordinator • Ly'Ron Henderson, P-TECH Support Teacher • Vacant, P-TECH Teacher • Vacant, P-TECH Teacher

BENCHMARK 1: SCHOOL DESIGN

The Pathways in Technology Early College High School (P-TECH) shall establish school structures and policies, regularly convene leadership teams, and ensure adequate staff capacity for the successful implementation and sustainability of the P-TECH program.

1.9	**P-TECH Staff Professional Development**	• Teacher mentors provided by IHE for P-TECH Teachers • Annual training for P-TECH Staff with IHE • Dual Credit and CCRSM Conferences • TEA Coach via Educate Texas
1.11	**Advisory Board**	• Industry partners • IHE faculty & staff • District leadership team • Campus & P-TECH campus team

BENCHMARK 2: Partnerships

The Pathways in Technology Early High School (P-TECH) must have a current, signed memorandum of understanding (MOU) or interlocal agreement (ILA) with each Institution of Higher Education (IHE). The P-TECH must also have a current and signed agreement with each business/industry partner. Both agreements must respectively outline key issues related to the planning, implementation, and sustainability of the P-TECH program. Stakeholders shall review the MOUs and agreements annually.

ALAMO COLLEGES DISTRICT

St. Philip's College

ST. PHILIP'S COLLEGE SAN ANTONIO, TEXAS

Grade Level	Class Year	Number of Students (09/2023)	ATTRITION	ON TRACK TO ASSOCIATES	ON TRACK LEVEL ONE
9	**Class of 2027**	36	*N/A*	*N/A*	*N/A*
10	**Class of 2026**	7	7/14 = 50%	0/7 = 0%	7/7 = 100%
11	**Class of 2025**	15	2/17 = 12%	0/15 = 0%	14/15 = 93%
12	**Class of 2024**	**20**	**1/21 = 4%**	**0/20 = 0%**	**14/20 = 70%**

SAISD

BENCHMARK 2: Partnerships

The Pathways in Technology Early High School (P-TECH) must have a current, signed memorandum of understanding (MOU) or interlocal agreement (ILA) with each Institution of Higher Education (IHE). The P-TECH must also have a current and signed agreement with each business/industry partner. Both agreements must respectively outline key issues related to the planning, implementation, and sustainability of the P-TECH program. Stakeholders shall review the MOUs and agreements annually.

St Phillip's College	H-E-B
Tech Port SA	CPS Energy
Be Sides SATX	Booz Allen Hamilton
Deloitte & Touche LLP	KTG Management & Consulting
Ready To Work	Vulcan
Greater SATX	USAA
Mims Institute Fellows	Oracle
Alamo Workforce Solutions	Cyber Future Foundations
Arctic Wolf	(ISC)2

BENCHMARK 3: TARGET POPULATION

The Pathways in Technology Early College High School (P-TECH) shall target and enroll historically underserved students. The campus must enable students who are at-risk of dropping out or those who wish to accelerate completion of high school to combine high school courses and college-level courses.

Enrollment decisions shall not be based on state assessment scores, discipline history, teacher recommendations, parent or student essays, minimum grade point average (GPA), or other criteria that create barriers for student enrollment.

Grade Level	Class of (Year)	P-TECH Program Students (Oct 2023)	Campus Students (Oct 2023)
9	2027	(36 / 285) 13%	(285 / 832) 35%
10	2026	(7 / 208) 3%	(208 / 832) 25%
11	2025	(15 / 178) 8%	(178 / 832) 21%
12	2024	(20 / 161) 12%	(161 / 832) 19%

Gender	Campus (%)	District (%)
M	(442 / 832) 53%	51%
F	(390 / 832) 47%	49%
Special Population	**Campus (%)**	**District (%)**
At-Risk	(357 / 832) 43%	68%
Econ. Dis.	(764 / 832) 92%	88%
SpEd	(131 / 832) 16%	89%
504	(42 / 832) 5%	28%
ELL	(83 / 832) 10%	91%

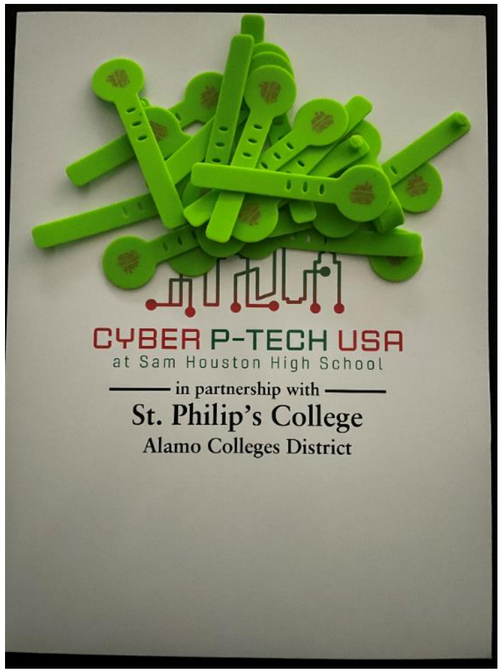
BENCHMARK 3: TARGET POPULATION

The P-TECH program shall serve, or include plans to scale up to serve, students in Grades 9 through 14, and shall target and enroll students who are at risk of dropping out of school as defined by the Public Education Information Management System (PEIMS) and who might not otherwise go to college.

Admission policy reflection

At SAISD, we believe that all children should have access to a variety of school options regardless of their academic abilities or where they live. Choice Schools and Magnet Programs offer specialized academic programming designed to best fit the individual interests of students. An application is required to gain admission to these schools. Admission is based on a lottery system* and is open to all students living in Bexar county and surrounding areas.

Recruitment Materials



BENCHMARK 3: TARGET POPULATION

The P-TECH program shall serve, or include plans to scale up to serve, students in Grades 9 through 14, and shall target and enroll students who are at risk of dropping out of school as defined by the Public Education Information Management System (PEIMS) and who might not otherwise go to college.

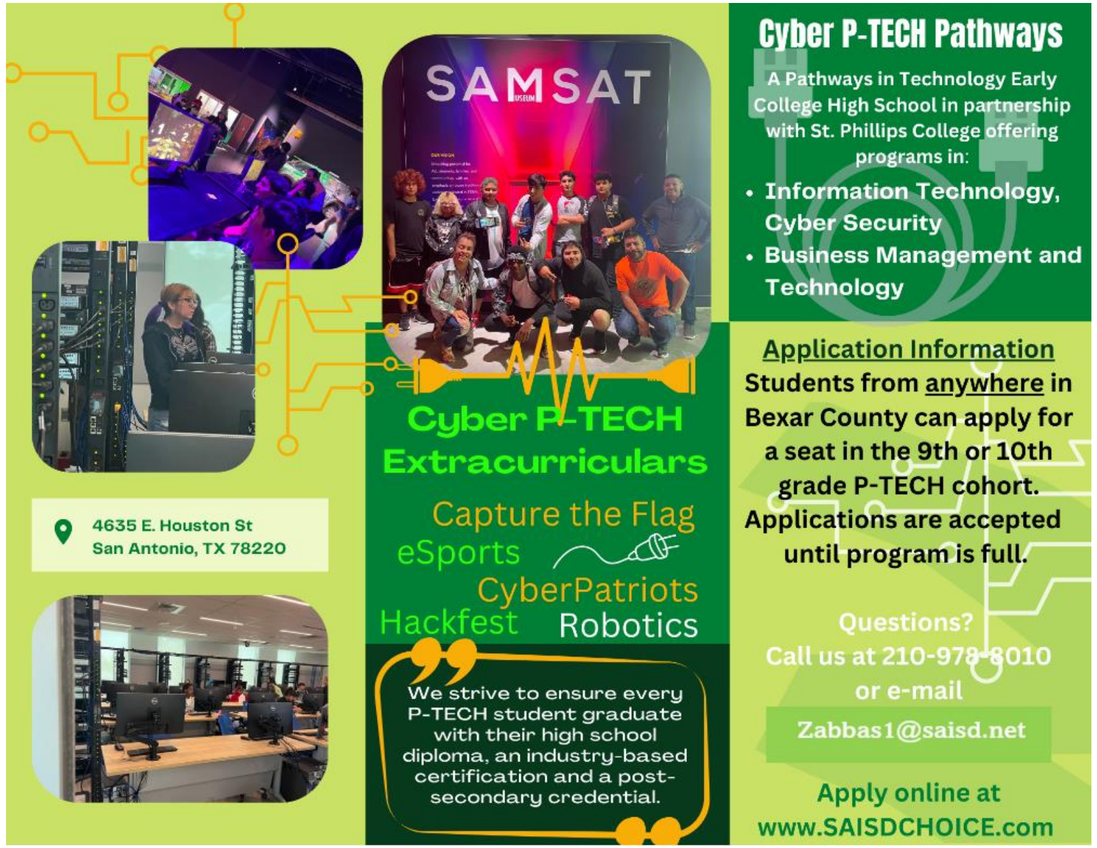
Recruitment plan reflection	
Timeline	**Activity**
Fall 2023	Homecoming Festival & Middle School Open Houses
Jan 2024 – Feb 2024	Recruitment & Presentations at SAISD Middle Schools
March 2024	Spring Festival
March 2024 – June 2024	Virtual Parent Information Sessions

Stakeholder Engagement
• Brochures
• Information Packet
• Social Media
• Website

BENCHMARK 3: TARGET POPULATION

The P-TECH program shall serve, or include plans to scale up to serve, students in Grades 9 through 14, and shall target and enroll students who are at risk of dropping out of school as defined by the Public Education Information Management System (PEIMS) and who might not otherwise go to college.

Stakeholder Engagement – Information Packet Sample



BENCHMARK 4: Academic Infrastructure

The Pathways in Technology Early College High School (P-TECH) must provide a rigorous course of study that allows students the opportunity to earn a high school diploma and enable a student to combine high school courses and college-level courses with the goal of earning industry-based certifications, certificates, and/or an associate degree and engage in appropriate work-based learning at every grade level.

Effective Date	Board Area	(SOC) (O*NET) Job Code	Target Occupation Job Title (Name)	Entry-Level Wage	Percent Found in Private Employment
3/15/2021	Alamo	11-3021	Computer and Information Systems Managers	$ 96,544	90.18%
3/15/2021	Alamo	17-2061	Computer Hardware Engineers	$ 58,758	85.29%
3/15/2021	Alamo	15-1241	Computer Network Architects	$ 66,552	95.56%
3/15/2021	Alamo	15-1231	Computer Network Support Specialists	$ 41,705	87.36%
3/15/2021	Alamo	15-1211	Computer Systems Analysts	$ 62,816	91.54%
3/15/2021	Alamo	15-1232	Computer User Support Specialists	$ 33,817	84.10%
3/15/2021	Alamo	15-1212	Information Security Analysts	$ 65,476	93.75%
3/15/2021	Alamo	15-1244	Network and Computer Systems Administrators	$ 57,633	85.19%
3/15/2021	Alamo	15-1252	Software Developers	$ 70,492	97.66%

SAISD

BENCHMARK 4: Academic Infrastructure

The Pathways in Technology Early College High School (P-TECH) must provide a rigorous course of study that allows students the opportunity to earn a high school diploma and enable a student to combine high school courses and college-level courses with the goal of earning industry-based certifications, certificates, and/or an associate degree and engage in appropriate work-based learning at every grade level.

4.1 Curriculum, Instruction & Assessment

- Information Technology Cybersecurity Specialist A.A.S. (60)
- Information Technology Cybersecurity Specialist Level 1 Certificate (28)
- CompTIA Security+ Cert Preparation (Occupational Skill Awards) (10)
- CompTIA Linux+ Cert Preparation (Occupational Skill Award) (9)
- Cyber First Responder (Occupational Skill Awards) (11)
- Business Management and Technology, A.A.S. (60)
- Small Business Management Level 1 Certificate (21)

BENCHMARK 4: Academic Infrastructure

The Pathways in Technology Early College High School (P-TECH) must provide a rigorous course of study that allows students the opportunity to earn a high school diploma and enable a student to combine high school courses and college-level courses with the goal of earning industry-based certifications, certificates, and/or an associate degree and engage in appropriate work-based learning at every grade level.

4.3 Crosswalk

CompTIA Security + Certification Preparation (OSA) (10)
ITNW 1308 - Implementing and Supporting Client Operating Systems
ITNW 1425 - Fundamentals of Networking Technologies
ITSY 1342 - Information Technology Security

CompTIA Linux+ Certification Preparation (OSA) (9)
ITSC 1316 - Linux Installation and Configuration
ITSY 1342 - Information Technology Security
ITSC 2325 - Advanced Linux

Cyber First Responders (OSA) (11)
ITSY 1342 - Information Technology Security
ITSY 2442 - Incident Response & Handling
ITSY 2443 - Computer System Forensics

Information Technology Cybersecurity Specialist Level 1 Certificate (20)
ITSC 1316 - Linux Installation and Configuration
ITNW 1308 - Implementing and Supporting Client Operating Systems
ITNW 1425 - Fundamentals of Networking Technologies
ITSY 1342 - Information Technology Security
ITSY 2301 - Firewalls and Network Security or ITSC 2325 Advanced Linux
ITNW 2412 – Routers

Information Technology Cybersecurity Specialist, A.A.S. (60)
ITNW 1308 - Implementing and Supporting Client Operating Systems
ITNW 1425 - Fundamentals of Networking Technologies
ITSC 1316 - Linux Installation and Configuration
Creative Arts Core Course
ITSY 1342 - Information Technology Security
ITNW 2405 - Network Administration
ITNW 2412 - Routers
COSC 1336 - Programming Fundamentals I
Social and Behavioral Sciences Core Course
Mathematics Core Course
ITNW 1413 - Computer Virtualization
Communication Core Course
ITSY 2301 - Firewalls and Network Security or ITSC 2325 Advanced Linux
Communication Core Course
ITSY 2442 - Incident Response and Handling
ITSY 2443 - Computer System Forensics
ITSY 2430 - Intrusion Detection
ITSY 2286 - Internship - Computer and Information Systems Security

SAISD

BENCHMARK 4: Academic Infrastructure

The Pathways in Technology Early College High School (P-TECH) must provide a rigorous course of study that allows students the opportunity to earn a high school diploma and enable a student to combine high school courses and college-level courses with the goal of earning industry-based certifications, certificates, and/or an associate degree and engage in appropriate work-based learning at every grade level.

4.3 Crosswalk

Small Business Management Level 1 Certificate (21)
MRKG 1311 - Principles of Marketing
HRPO 1311 - Human Relations
BMGT 1301 - Supervision (milestone course)
BUSG 2309 - Small Business Management
BMGT 2331 - Principles of Quality Management
BMGT 2303 - Prob-Solving & Decision-Making or BMGT 1341 Bus Ethics
BUSG 2305 - Business Law/Contracts or BUSI 2301 Business Law I

Business Management and Technology, A.A.S. (60)
COSC 1301 - Introduction to Computing or BCIS 1305 Business Computer Applications
HRPO 1311 - Human Relations
MRKG 1311 - Principles of Marketing
BMGT 1301 - Supervision (milestone course)
BMGT 1309 - Info and Project Management or BMGT 1327 Principles of Management
ENGL 1301 - Composition I
BMGT 2303 - Problem-Solving & Decision-Making or BMGT 1341 Bus Ethics
BMGT 2331 - Principles of Quality Management
BUSG 2305 - Business Law/Contracts or BUSI 2301 Business Law I
BUSG 2309 - Small Business Management (milestone course)
Language, Philosophy & Culture (40) Core or Creative Arts (50) Core Course
Social and Behavioral Sciences (80) Core Course
ITSY 1342 - Information Technology Security
HRPO 2307 - Organizational Behavior
POFT 2312 - Bus Correspondence & Comm or IBUS 1305 Intro to International Bus & Trade
Mathematics (20) Core
ACCT 2301 - Principles of Financial Accounting
MRKG 2333 - Principles of Selling
BMGT 2389 - Internship - Business Administration and Management, General
BMGT 2309 - Leadership

BENCHMARK 4: Academic Infrastructure

The Pathways in Technology Early College High School (P-TECH) must provide a rigorous course of study that allows students the opportunity to earn a high school diploma and enable a student to combine high school courses and college-level courses with the goal of earning industry-based certifications, certificates, and/or an associate degree and engage in appropriate work-based learning at every grade level.

4.5 College Readiness

- TSI Testing – Ongoing with Campus Testing Coordinator & P-TECH Department
  - Requirements 945 ELAR Diag. 5/950 Math Diag. 6
- CTE Completers - All graduating students will have STEM Endorsement
- Year 5-6 planning - PTECH Scholars Program providing support to high school graduates continuing path with IHE.

4.8 Student Data Tracking

- Student data and outcomes are monitored on a Student Tracker spreadsheet and Schoolinks.
- Assessment scores are tracked for CCMR.
- Course convention for following year is planned based on Student Tracker.

BENCHMARK 5: Student Support

The Pathways in Technology Early College High School (P-TECH) must provide wrap-around strategies and services involving multiple stakeholders to strengthen academic, technical, and individual support for students to be successful in their P-TECH program.

5.1 Bridge Programs

- Summer 2023 Bridge program was changed to ongoing Bridge program throughout the 2023-2024 school year with college trips, TSI test preparation, and career workshops.
- Summer Bridge 2024 program will be scheduled for June 2024

5.2 Advising

- Once a month with the IHE College Coordinator of HS programs
- Campus counselors & P-TECH Coordinator

5.3 Student Intervention

- Students enrolled in select courses visit the IHE campus once a week to receive instructional support from the course instructor.
- IHE faculty visit the high school campus once a week for continued support with select courses.

BENCHMARK 5: Student Support

The Pathways in Technology Early College High School (P-TECH) must provide wrap-around strategies and services involving multiple stakeholders to strengthen academic, technical, and individual support for students to be successful in their P-TECH program.

5.4 Classroom Supports

- Weekly Grade Checks
- P-TECH Support Teacher
- Communities in Schools
- Positive Behavioral Interventions and Support (PBIS)

5.6 Enrichment Opportunities

- Family Outreach Events such as Meet the Teacher Night, Homecoming Festival, Parent-Teacher Conferences
- Field trips to industry partners
- Work study programs
- Job shadow days
- Guest speakers.

BENCHMARK 6: Work-Based Learning

The Pathways in Technology Early College High School (P-TECH) must offer students a variety of relevant, high-skill work-based learning experiences at every grade level that respond to student interest and regional employer needs and contribute to students earning aligned industry certifications and credentials.

Past and Upcoming WBL Experiences

**** Projected**

Experience	Description	Grades	Engagement
Career Training **(ongoing weekly)**	Students repair broken district chrome books with training from technology team	11	99%
Career Workshop	National Security Agency High School Career Workshop	10 -12	86%
Guest Speaker	Mims Institute Founder – Lieutenant Colonel Mims	10 - 12	92%
Career Workshop	Power Your Future Youth Workshop – CPS Energy	9 - 12	91%
Job Shadow	USAA Job Shadow Day	9 - 12	**90%
Field Trip	Monster TECH Fest – St. Phillips College	9 - 12	**95%
Guest Speaker	UTSA Cybersecurity Department Associate Professor	10 - 11	**98%

ACCESS OBMs

Access Outcomes-Based Measures							
Student representation in the P-TECH program.							
Data Indicators	**Designated**	**Distinction**	**Cohort**				
	Must meet targets on "At-Risk Students" and "Economically Disadvantaged Students" designated data indicators	Must meet all designated access data indicators and two access distinction data indicators	**2024**	**2025**	**2026**	**2027**	**District**
ECHS proportionate to or over-represents **at-risk incoming 9th graders**	No more than 25% points under district (9-12)	No more than 20% under district (grades 9-12)	(20 / 20) 100%	(15 / 15) 100%	(7 / 7) 100%	(36 / 36) 100%	75%
ECHS proportionate to or over-represents **economically disadvantaged students**	No more than 10% under district (grades 9-12)	No more than 5% under district (grades 9-12)	(20 / 20) 100%	(15 / 15) 100%	(7 / 7) 100%	(36 / 36) 100%	89%
ECHS proportionate to or over-represents **English learners (incoming 9th graders)**	Not considered for designation	No more than 10% under district	(5 / 20) 25%	(2 / 15) 13%	(1 / 7) 14%	(7 / 36) 19%	24%
ECHS proportionate to or over-represents **students with disabilities**	Not considered for designation	No more than 10% under district	(5 / 20) 25%	(3 / 15) 20%	(1 / 7) 14%	(6 / 36) 16%	16%

ACHIEVEMENT OBMs

Achievement Outcomes-Based Measures						
Student achievement through high school based opportunities.						**Projected
Data Indicators	**Designated**	**Designated with Excellence**	**Cohorts**			
	Must meet targets on at least three attainment data indicators	Must meet targets on at least three attainment data indicators	**2024**	**2025**	**2026**	**2027**
Algebra EOC I Assessment	70% of students achieve “Approaches Grade Level Performance” or higher by the end of 9th grade	80% of students achieve “Approaches Grade Level Performance” or higher by the end of 9th grade	(18 / 20) 90%	(11 / 15) 73%	(7 / 7) 100%	(30 / 36) **83%
English II EOC Assessment	70% of students achieve “Approaches Grade Level Performance” or higher by the end of 11th grade	80% of students achieve “Approaches Grade Level Performance” or higher by the end of 11th grade	(20 / 20) 100%	(15 / 15) **100%	(7 / 7) **100%	(36 / 36) **100%
College Readiness in Mathematics and ELA/Reading	40% of students meet TSIA criteria in mathematics and ELA/Reading (CCMR definition) by graduation	50% of students meet TSIA criteria in mathematics and ELA/Reading (CCMR definition) by graduation	(20 / 20) 100%	(15 / 15) **100%	(7 / 7) **100%	(36 / 36) **100%
High School Graduation Rate	Campus is within 5% of statewide 4- year graduation rate	Campus exceeds the statewide 4-year graduation rate	**85%	**87%	**89%	**91%
CTE Program Status by 11th grade	55% of students meet CTE concentrator or computer status by the end of the 11th grade	65% of students meet CTE concentrator or computer status by the end of the 11th grade	(20 / 20) 100%	(15 / 15) **100%	(7 / 7) **100%	(36 / 36) **100%
CTE Program Status by graduation	65% of students graduate as a CTE concentrator or completer by graduation	75% of students graduate as a CTE concentrator or completer by graduation	(20 / 20) 100%	(15 / 15) **100%	(7 / 7) **100%	(36 / 36) **100%

SAISD

ATTAINMENT OBMs

Attainment Outcomes-Based Measures						
Student attainment of postsecondary opportunities such as Industry Based Certifications, Dual Credit, Level I or II Certificates, and/or Associate Degree.						
Data Indicators	**Designated**	**Designated with Excellence**	**Cohorts**			
	Must meet targets on at least three Attainment designation data indicators	Must meet targets on at least three attainment designation data indicators	**2024**	**2025**	**2026**	**2027**
Earn 3 College Credits	50% of students earn 3 college credits (any) by the end of 10th grade	60% of students earn any 3 college credits by the end of 10th grade	(20 / 20) 100%	(15 / 15) 100%	(7 / 7) 100%	(36 / 36) **100%
Earn 9 College Credits	40% of students earn 9 college credits (any) by the end of 11th grade	50% of students earn any 9 college credits by the end of 11th grade	(20 / 20) 100%	(15 / 15) 100%	(7 / 7) **100%	(36 / 36) **100%
Earn 15 College Credits	40% of students earn 15 college credits (any) by graduation	50% of students earn any 15 college credits by graduation	(17 / 20) 85%	(11 / 15) **73%	(7 / 7) **100%	(28 / 36) **78%
Earn a Certificate or Associate Degree	30% of students earn an associate degree or Level I or II certificate by graduation	30% of students earn an associate degree or Level I or II certificate by graduation	(14 / 20) **70%	(14 / 15) **93%	(7 / 7) **100%	(28 / 36) **78%
Earn an Industry Based Certification (IBC)	50% of students earn an Industry Based Certification by graduation	60% of students earn an Industry Based Certification by graduation	(14 / 20) **70%	(14 / 15) **93%	(7 / 7) **100%	(36 / 36) **100%
Persistence	75% of students enrolled remain in the P-TECH program through graduation	**** Projected**	(15 / 20) 75%	(12 / 15) **80%	(6 / 7) **85%	(28 / 36) **78%

Success and Opportunities

Success
• Tech teams for students repairing devices
• IHE student advisement, transcript audits, and course registrations.
• IHE faculty availability with visits to high school campus and tutoring at IHE campus.
• Campus support – Administration and school staff are very supportive of the program and incredibly accommodating.
• Students identified to take 4 CLEP Exams to earn college credits towards Associate's degree.
• BMT high school teacher now Adjunct faculty with approval to teach 5 college courses.

Opportunities
• Improved communication between high school and IHE faculty regarding student smart drops.
• Enhanced faculty support and understanding for Dual Credit high school students.
• Allocate school time for students to prepare for CLEP Exams, thus earning additional college credits.

Problem of Practice – Steering Committee

Areas of focus
• Identify ways to recruit and retain high school cyber teachers also qualified to be Adjunct faculty with IHE. • Explore ways long-term substitutes can fulfill the role of a facilitator for Dual Credit courses, perhaps through additional training and an additional financial compensation. • Strategies to ensure Cyber P-TECH students develop relationships with IHE professors to promote continuity, grace, and collaboration. • Creative approaches to promote Cyber P-TECH for additional enrollments for outside the Sam Houston Attendance Zone. • Create plans to ensure all students are College and Career Ready by the end of 11th grade.

THANK YOU

+1 (210) 978-7900

zabbas1@saisd.net

https://schools.saisd.net/page/006.cyber

Cyber P-TECH USA

Sam Houston High School

4635 E. Houston Street
San Antonio, Texas 78220