2023-2024

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South Texas ISD

Programs of Study

Career & Technical Education

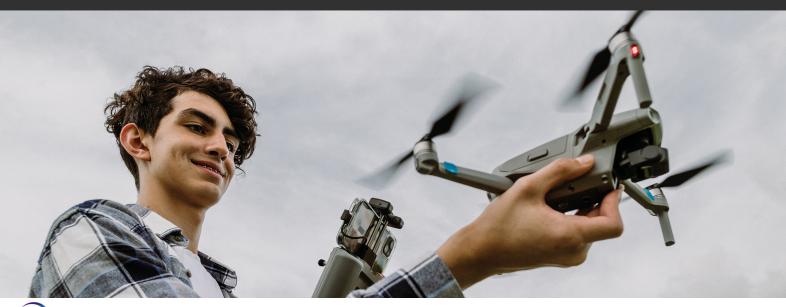
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Vision

South Texas ISD paved the way for Career & Technical Education (CTE) in the Rio Grande Valley with the establishment of its first vocational magnet school in 1984. Since that time, the district has grown and developed its campuses and CTE programs, offering RGV students innovative educational opportunities.

STISD continues to build and strengthen courses, programs, and certification opportunities through organizations/extracurriculars that meet the individual interests and needs of our students. Starting with the 2023-2024 School Year, we will have 22 different Programs of Study within 9 Career Clusters, all intended to provide our students an advantage in their career.

With the wide variety of Career Clusters and Programs of Study at STISD, there is something here for every student. We are always innovating, and we offer state-of-the-art facilities and equipment and high-quality instruction by teachers who are experts in their fields. Your time at South Texas ISD will set you on the path to a successful career, and we are excited to guide you through it!

Our STISD Career & Technical Education Guide will help provide a perspective for current students and families to find their fit. We encourage you to look through the guide to learn more about available programs at STISD. The short quizzes and sample occupations will help you to define your areas of interest, and campus counselors are available to answer more specific questions as you decide your path to success.



What is CTE?

Career and Technical Education (CTE) is focused on delivering students of all ages with hands-on, skills-based education that better prepares them for future education or entering the workforce.

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CTE at-a-Glance

		South Texas ISD Health Professions	South Texas Bod Science Academy	South Texas 150 World Scholars	South Texas ISO Virtual Academy
The	Agriculture, Food, and Natural Resources				
	Arts, AV Technology, & Communications				
2	Business, Marketing, and Finance				
₩	Health Science				
1	Hospitality and Tourism				
2425	Law and Public Service				
**	Manufacturing				
898	Science, Technology, Engineering, and Mathematics				
	Transportation, Distribution, and Logistics				

Exploration opportunities will also be available at the middle school level
CTE high school credit courses in 8th-grade

* CTE courses are subject to change due to student enrollment, facilities and staff availability.

CTE Student Organizations

Career and Technical Student Organizations extend Career and Technical Education in Texas through networks of programs, business and community partnerships and leadership experiences at the school, state and national levels. Career and Technical Student Organizations provide Texas students with opportunities to apply academic, technical and employability knowledge and skills necessary in today's workforce.



Business Professionals of America (BPA) The mission of BPA is to contribute to the preparation of a world-class workforce through advancement of leadership, citizenship, academic and technological skills. | www.bpa.org



HOSA - Future Health Professionals The mission of HOSA is to enhance the delivery of compassionate, quality health care by providing opportunities for knowledge, skill and leadership development of all health science education students, therefore, helping the student meet the needs of the health care community. | www.hosa.org



SkillsUSA is a partnership of students, teachers and industry working together to ensure America has a skilled workforce. SkillsUSA helps each student excel. | www.skillsusa.org



Technology Student Association (TSA) TSA fosters personal growth, leadership, and opportunities in technology, innovation, design, and engineering. Members apply and integrate science, technology, engineering and mathematics concepts through cocurricular activities, competitive events and related programs. | www.tsaweb.org



National Future Farmers of America (FFA) FFA is a dynamic student-led leadership development organization for students of agricultural education. FFA makes a positive difference in the lives of students by developing their potential for premier leadership, personal growth and career success through agricultural education. | www.texasffa.org

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Agriculture, Food & Natural Resources

The Agriculture, Food and Natural Resources Career

Cluster focuses on the essential elements of life- food, water, land and air. This career cluster includes a diverse spectrum of occupations, ranging from farmer, rancher and veterinarian to geologist, land conservationist and florist. It also includes non-traditional agriculture occupations like wind energy, solar energy and oil and gas production.

Ask Yourself

- 1. Do you like working outdoors?
- 2. Are you interested in biological sciences?
- 3. Are you interested in environmental issues?
- 4. Do you like hunting and fishing?
- 5. Are you good with animals?

Endorsements

Business & Industry

Certifications

 Certified Veterinary Assistant, Level 1 (CVA)

Career & Technical Student Organizations

• Future Farmers of America (FFA)



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Animal Science

- Principles of Agriculture, Food & Natural Resources
- Small Animal Management/Equine Science
- Veterinarian Medical Application/Lab
- Practicum in Agriculture, Food and Natural Resources

Occupations:	Median Wage	Annual Openings	% Growth
Animal Breeders	\$39,135	28	9%
Animal Scientists	\$57,533	22	12%
Medical Scientists	\$63,898	435	27%
Veterinarians	\$93,496	294	24%
 Zoologists and Wildlife Biologists 	\$67,309	45	32%



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Arts/AV Technology & Communications

The Arts, A/V Technology and Communications (AAVTC)

Career Cluster focuses on careers in designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services. Careers in the AAVTC career cluster require a creative aptitude, a strong background in computer and technology applications, a strong academic foundation, and a proficiency in oral and written communication.

Ask Yourself

- 1. Do you have an active imagination?
- 2. Do you like to visit art museums?
- 3. Do you like to read short stories and novels more than how-to-books?
- 4. Is it important for you to express your feelings?
- 5. Are you independent and creative?
- 6. Do you know how to set up sound equipment?

Endorsements

Business & Industry

Certifications

- Adobe Certified Professional in Digital Video Using Adobe Premiere Pro
- Adobe Certified Professional in Graphic Design and Illustration Using Adobe Illustrator
- Adobe Certified Professional in Print and Digital Media Publication Using Adobe InDesign

Career & Technical Student Organizations

- SkillsUSA
- Technology Student Association

Graphic Design & Multimedia Arts

- Principles of Arts, A/V Technology & Communications or Digital Media
- Graphic Design and Illustration I or Animation I
- Graphic Design and Illustration II/Lab or Animation II
- Practicum in Graphic Design and Illustration or Practicum in Animation

Median Wage \$44,824 \$67,392 Annual Openings 1,433 186 **% Growth** 15% 21%

Digital Communications

- Principles of Arts, A/V Technology & Communications *or* Professional Communications/Web Communications
- Audio/Video Production I
- Audio/Video Production II/Lab

Multimedia Artists and Animators

Practicum in Audio/Video Production

Occupations:

Occupations:

• Graphic Designers

- Sound Engineering Technicians
- Camera Operators, Television, Video and Motion Picture

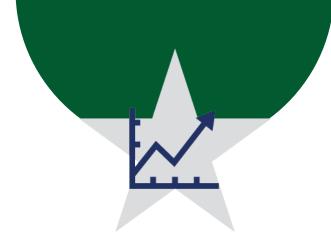
- Audio and Video Equipment Technicians
- Film and Video Editors

Median Wage	Annual Openings	% Growth
\$39,562	79	27%
\$50,024	129	9%
-	-	-
\$40,581	757	29%
\$47,382	118	23%





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Business, Marketing & Finance

The Business, Marketing and Finance Career Cluster

focuses on careers in planning, organizing, directing and evaluating business functions essential to efficient and productive business operations.

Ask Yourself

1. Do you like math?

- 2. Can you persuade people to accept your point of view?
- 3. Do you like selling things?
- 4. Do you like to be in charge of group projects?
- 5. Are you driven to increase profits and competition?

Endorsements

Business & Industry

Certifications

- Entrepreneurship & Small Business
- Microsoft Office Specialist

Career & Technical Student Organizations

 Business Professionals of America (BPA)



Business Management

- Principles of Business, Marketing & Finance or Business Information Management I
- Business Information Management II
- Business Management
- Practicum in Business Management

	Median Wage	Annual Openings	% Growth
	\$96,138	2,277	21%
	\$87,651	4,706	32%
	\$107,640	18,679	20%
s	\$57 616	14 982	20%

Management Analysts

Occupations:

General and Operations Managers

Administrative Service Managers

Supervisors of Administrative Support Workers

Marketing & Sales

- Principles of Business, Marketing & Finance or Marketing
- Sports & Entertainment Marketing/Virtual Business Marketing
- Social Media Marketing/Sports Entertainment Marketing II
- Practicum in Marketing

Occupations:

Specialists

	Median Wage	Annual Openings	% Growth
rketing	\$70,346	4,664	40%
	\$43,181	5,886	30%
Workers	\$72,550	2,826	15%
	\$51,106	1,229	19%

First-Line Supervisors of Retail Sales V
Wholesale and Retail Buyers

Insurance Sales Agents

Marketing Research Analysts and Mar

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Health Science

The Health Science Career Cluster focuses on planning, managing and providing therapeutic services, diagnostics services, health informatics, support services and biotechnology research and development. To pursue a career in the health science industry, students should learn to reason, think critically, make decisions, solve problems, communicate effectively and work well with others.

Ask Yourself

- 1. Do you like working with people?
- 2. Do you like science?
- 3. Do you work well in a team?
- 4. Have you ever done volunteer work to help others?

5. Do you enjoy laboratory work in chemistry or biology?



Endorsements

Public Services

Certifications

- Certified Clinical Medical Assistant (CCMA)
- Certified EKG Technician
- Certified Nurse Aide (CNA)
- Certified Ophthalmic Technician
- Certified Personal Trainer (CPT)
- Emergency Medical Technician Basic
- Medical Billing & Coding
- Patient Care Technician (PCT)
- Pharmacy Technician
- Phlebotomy Technician
- Registered Dental Assistant

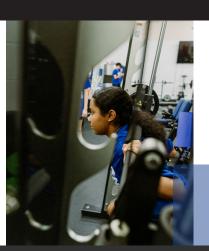
Career & Technical Student Organizations

- HOSA- Future Health Professionals

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Exercise Science & Wellness

- Principles of Exercise and Wellness or Kinesiology I
- Anatomy & Physiology
- Kinesiology II
- Practicum in Entrepreneurship



Occupations:	Median Wage	Annual Openings 215	% Growth
• Athletic Trainers	\$53,450		22%
 Exercise Physiologists Coaches and Scouts Dietitians and Nutritionists 	\$41,662	33	33%
	\$40,010	2,133	23%
	\$57,762	428	24%
Recreational Therapists	\$45,906	74	24%

Healthcare Diagnostics

- Principles of Health Science and Medical Terminology
- Anatomy & Physiology and Pathophysiology
- Health Science Theory/Clinical
- Practicum in Health Science



Occupations: Median Wage Annual Openings % Growth Diagnostic Medical Sonographers \$69,909 495 35% Phlebotomists \$30,597 1.442 36% Nuclear Medicine Technologists \$75,962 13% 91 Radiologic Technologists \$55.494 1.196 19% Magnetic Resonance Imaging \$68.661 21% 217 Technologists



Health Science

Healthcare Therapeutic

Principles of Health Science or Medical Terminology
 D- Introduction to Dental Science or Dental Anatomy & Physiology
 RX-Introduction to Pharmacy Science or Pharmacy I

*** D= Dental | RX=Pharmacy

- · Anatomy & Physiology or Dental Equipment & Procedures or Pharmacy II
- Health Science Theory/Clinical or Pathophysiology or Pharmacology
- Practicum in Health Science

Occupations:	Median Wage	Annual Openings	% Growth
• Medical Assistants	\$29,598	8,862	30%
• Surgical Technologists	\$45,032	1,150	20%
• Dental Hygienists	\$73,507	1,353	38%
• Physicians and Surgeons	\$213,071	1,151	30%
 Dental Assistants 	\$34,840	4,422	31%



Health Informatics

- Principles of Health Science or Medical Terminology
- Medical Intervention Evaluation & Research
- Health Informatics
- World Health Research

 Occupations: Medical Records and Health Information Technicians 	Median Wage \$35,922 -	Annual Openings 1,588 -	% Growth 24% -
 Medical and Health Service Managers Billing and Posting Clerks 	\$93,995 - \$35,485	2,562 - 5,775	29% - 25%

Nursing Science

- Principles of Nursing & Medical Terminology
- Anatomy & Physiology/Pathophysiology
- Leadership and Management in Nursing/Pharmacology
- Practicum in Nursing

Occupations:

- Licensed Vocational Nurses
- Registered Nurses
- Nurse Practitioners
- Nurse Anesthetists

Median Wage \$45,178 \$68,682 \$107,827 \$154,856 **Annual Openings** 7,186 17,493 977 357

% Growth 21% 26% 50% 23%



Hospitality & Tourism

The Hospitality and Tourism Career Cluster focuses on the management, marketing, and operations of restaurants and other food/beverage services, lodging, attractions, recreation events, and travel-related services. Students acquire knowledge and skills focusing on communication, time management, and customer service that meet industry standards. Students will explore the history of the hospitality and tourism industry and examine characteristics needed for success.

Ask Yourself

- Can you juggle several tasks at the same time?
 Are you able to work long hours, weekends or evenings?
- 3. Can you handle intense deadline pressure?4.Can you put the needs of your guest(s) before your own needs?

Endorsements Business & Industry

Certifications • ServSafe Manager

Career & Technical Student Organizations • SkillsUSA



Culinary Arts

- Introduction to Culinary Arts
- Foundations of Restaurant Management
- · Culinary Arts or Advanced Culinary Arts
- Practicum in Culinary Arts

Occupations:

- Food and Beverage Managers
- Chef and Head Cooks
- Food Science Technicians

Med	ian V	Vag
\$55,	619	
\$43,	285	
\$34,	382	

Annual Openings 1,561 1,366 236 % Growth 28% 25% 11%



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The Law and Public Service Career Cluster focuses on planning, managing and providing legal services, public safety, protective services and homeland security, including professional and technical support services. Students will examine the roles and responsibilities of police, courts, corrections, private security, and fire and emergency services.

Ask Yourself

Do you do well in your English courses?
 Do you have a clean police record?
 Do you keep your cool in stressful or dangerous situations?

Endorsements Public Services

Certifications

IAED Emergency
 Telecommunicator

Career & Technical Student Organizations

SkillsUSA

Law Enforcement

- Principles of Law, Public Safety, Corrections & Security
- Law Enforcement I and Forensic Psychology
- Law Enforcement II and Forensic Science
- Practicum in Law, Public Safety, Corrections & Security

Occupations:	Median Wage	Annual Openings	% Growth
• Police and Sheriff's Patrol Officers	\$60,112	5,241	13%
• Probation Officers and Correctional Treatment	\$44,054	793	9%
Officers Correctional Officers and Jailers Immigration and Customs Inspectors First-Line Supervisors of Police and Detectives 	-	-	-
	\$40,186	4,683	9%
	\$78,104	1,236	9%
	\$91,312	253	25%

Legal Studies

- Principles of Law, Public Safety, Corrections & Security
- Court Systems & Practices
- Legal Research Writing
- Practicum in Law, Public Safety, Corrections & Security



Occupations:

- Lawyers
- Paralegal and Legal Assistants

Median Wage \$126,131 \$50,544 **Annual Openings** 2,801 2,837 **% Growth** 19% 19%

Scholari M. Scholari



Manufacturing

The Manufacturing Career Cluster focuses on planning, managing and performing the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance and manufacturing/process engineering.

Ask Yourself

- 1. Are you good at operating tools and machinery?
- 2. Is automation intriguing to you?
- 3. Can you follow safety instructions?
- 4. Do you enjoy taking things apart and putting them back together?
- 5. Are you good at spotting imperfections or inconsistencies in products?

Endorsements

Business & Industry

Certifications

- Machining Measurement, Material & Safety Level I
- AWS D1.1 Structural Steel
- AWS D9.1 Sheet Metal Welding

Career & Technical Student Organizations

SkillsUSA

Advanced Manufacturing and Machinery Mechanics

- Principles of Manufacturing
- Manufacturing Engineering Technology I
- Manufacturing Engineering Technology II
- Practicum in Manufacturing

*Dual Enrollment Opportunities

Occupations:

- Electro-Mechanical Assemblers
- Electro-Mechanical Technicians
- Industrial Machinery Mechanics

Median Wage \$30,160 \$56,555 \$49,816 **Annual Openings** 951 127 3,788 % Growth 9% 9% 27%

Welding

- Introduction to Welding
- Welding I
- Welding II
- Practicum in Manufacturing

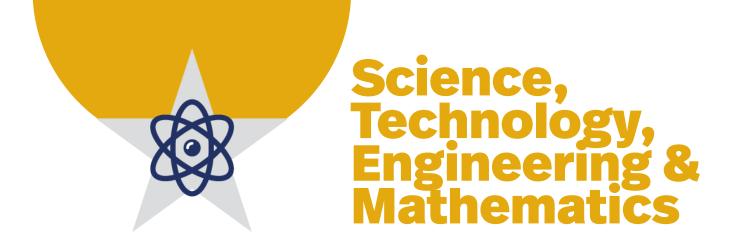


Occupations:

- Welders, Cutters, Solderers and Brazers
- Welding Soldering and Brazing Machine Setters, Operators and Tenders

Median Wage \$41,350 \$40,040 Annual Openings 6,171 280 **% Growth** 9% 9%





The Science, Technology, Engineering and Mathematics

(STEM) Career Cluster focuses on the planning, managing, and providing scientific research and professional and technical services, including laboratory and testing services and research and development services.

Ask Yourself

- 1. Do you enjoy working with your hands?
- 2. Do you like to take things apart and see how they work?
- 3. Do you get good grades in English, Math and Science?
- 4. Do you like group projects and working with others to reach a common goal?

Endorsements

STEM

Certifications

- Apple App Development with Swift
- Autodesk Certified User-Inventor for Mechanical Design
- Autodesk Certified User-Revit
 Architecture
- FAA Part 107 Remote Drone Pilot
- Information Technology Specialist: Java
- Medical Laboratory Assistant

Career & Technical Student Organizations

- SkillsUSA
- Technology Student Association (TSA)

Biomedical

- Principles of Biomedical Science
- Biotechnology I &/or Medical Microbiology
- Biotechnology II
- Practicum in S.T.E.M.



Occupations: • Medical and Laboratory Technicians • Biological Technicians	\$37,981 \$42,931	Annual Openings 1,159 452	% Growth 28% 17%
 Forensic Science Technicians Chemical Technicians Medical and Clinical Laboratory Technologists 	\$48,152	171	35%
	\$49,733	672	10%
	\$58,760	1,166	25%

Cybersecurity

- Fundamentals of Computer Science or Foundations of Cybersecurity
- AP Computer Science Principles
- AP Computer Science A
- Cybersecurity Capstone



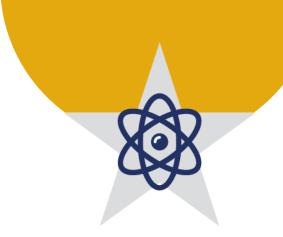
Occupations:

- Information Security Analysts
- Network and Computer System Administrators
- Computer System Analysts

Median Wage \$91,915 \$82,597

\$87,568

Annual Openings 814 2,814 5,937_____ **% Growth** 29% 19% 29%



Science, Technology, Engineering & Mathematics

Engineering

- PLTW Introduction to Engineering Design
- PLTW Engineering Science (Principles of Engineering)
- PLTW Digital Electronics
- PLTW Engineering Design & Development and PLTW Computer Integrated Manufacturing or PLTW Aerospace Engineering or PLTW Civil Engineering & Architecture
- Practicum in S.T.E.M.

Occupations:	Median Wage	Annual Openings	% Growth
 Aerospace Engineers 	\$110,843	481	9%
 Industrial Engineers 	\$97,074	1,263	10%
 Mechanical Engineers 	\$91,107	1,535	11%
Chemical Engineers	\$112,819	474	9%
 Electrical Engineers 	\$98,405	1,137	10%



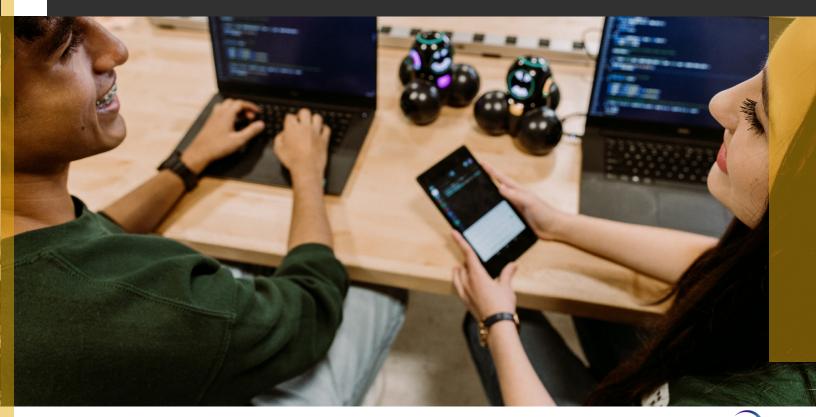
Programming & Software Development

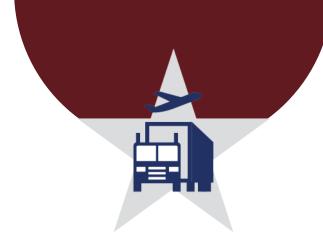
- Fundamentals of Computer Science or AP Computer Science Principles or Computer Science I
- AP Computer Science A or Mobile Application Development
- Computer Science II
- Computer Science III

Occupations:

- Software Developer, Systems Software
- Software Developers, Applications
- Computer Programmers

Median Wage \$103,334 \$104,499 \$79,893 **Annual Openings** 2,985 6,311 1,454 % Growth 25% 30% 9%





Transportation, Distribution & Logistics

The Transportation, Distribution and Logistics Career Cluster

focuses on careers in planning, management and movement of people, materials and goods by road, pipeline, air, rail and water. It also includes related professional support services such as transportation infrastructure planning and management, logistics services, mobile equipment and facility maintenance.

Ask Yourself

- 1. Do you pay attention to details?
- 2. Are you good at operating tools and machinery?
- 3. Do you enjoy working with your hands?
- 4. Do you prefer being outdoors instead of indoors?
- 5. Do you enjoy taking things apart and putting them back together?

Endorsements

Business & Industry

Certifications

- ASE Entry-Level Automobile Maintenance & Light Repair (MR)
- ASE-Entry Level Automobile Brakes
 (BR)
- ASE-Entry Level Automobile Engine Repair (ER)
- ASE-Entry Level Automobile Suspension and Steering (SS)
- ASE-Entry Level Automobile Service Technology
- ASE-Refrigerant Recovery and Recycling

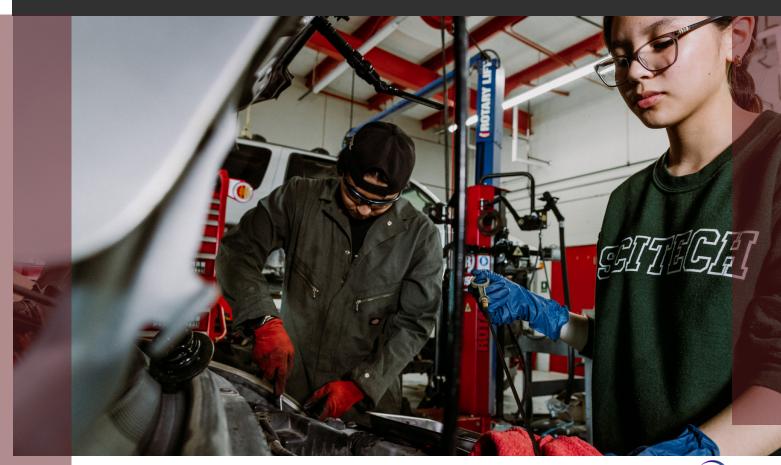
Career & Technical Student Organizations

SkillsUSA

Automotive

- Small Engine Technology
- Small Engine Technology II
- Automotive Technology I
- Practicum in Transportation Systems

Occupations:	Median Wage	Annual Openings	% Growth
 Automotive Body and Related Repairers 	\$40,144	1,456	25%
Automotive Service Technician and Mechanics	\$38,459	5,557	18%

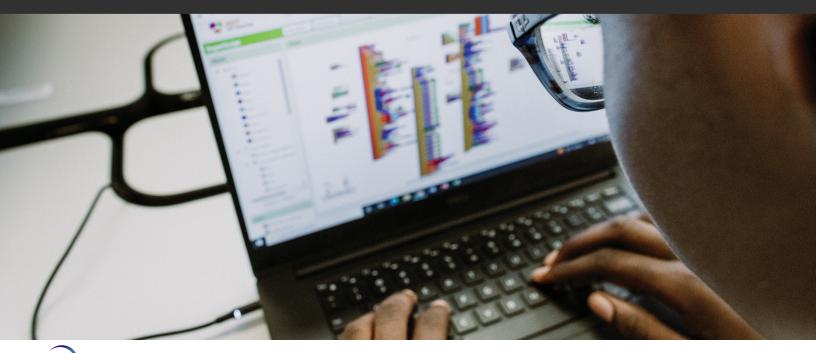




P-TECH is an innovative school model that allows students to receive curriculum focused on workforce needs, and develop partnerships while obtaining credentials, certificates and earn college credit hours.

Students participating in P-TECH can:

- Earn a high school diploma and a certificate in the area of computer programming & software development at NO COST
 Graduate with up to 56 credit hours transferable to any Texas supported college or university
- **Gain work experience** through career readiness, job shadowing, internships, or job training programs



CTE Community Partnerships

AT STISD, we are grateful for our community partners and the invaluable experiences they provide to our students as they pursue their CTE programs of study. We are always open to establishing new partnerships to offer even richer learning opportunities.

If you are interested in becoming one of our STISD Business/Industry Partners, please contact our CTE department at (956) 514-4268 or submit your contact information through the QR Code. Thank you!



STISD Half-Day Programs

Through the STISD Half-Day Programs, students with special needs can take the majority of their academic classes at their home high schools and take a combination of Career & Technical Education (CTE) and academic courses for a total of 4 credits per year.

The purpose of the Half Day Programs is to teach students in a real work environment so they gain a marketable edge in the workforce. Further, students gain the confidence they need to continue their education after high school. Graduates of the program have solid technical and social skills.

> If you are interested in becoming an STISD Half Day Programs partner, or if you would like more information about our STISD Half-Day Programs, please contact: 956.514.4259.





Industry-Based Certifications

- -Adobe Certified Professional in Digital Video using Adobe Premiere Pro
- -Adobe Certified Professional in Graphic Design and Illustration using Adobe Illustrator
- -Adobe Certified Professional in Print and Digital Media Publication using Adobe InDesign
- -Apple App Development with Swift
- -ASE Entry-Level Automobile Maintenance & Light Repair (MR)
- -ASE Entry-Level Automobile Brakes (BR)
- -ASE Entry-Level Automobile Engine Repair (ER)
- -ASE Entry-Level Automobile Service Technology
- -ASE Entry-Level Automobile Suspension and Steering (SS)
- -ASE-Refrigerant Recovery and Recycling
- -Autodesk Certified User Inventor for Mechanical Design
- -Autodesk Certified User Revit Architecture
- -AWS D1.1 Structural Steel
- -Certified Clinical Medical Assistant (CCMA)
- -Certified EKG Technician
- -Certified Nurse Aid (CNA)
- -Certified Ophthalmic Technician

* CTE courses are subject to change due to student enrollment, facilities and staff availability.

Industry-Based Certifications

-Certified Personal Trainer (CPT) -Certified Veterinary Assistant, Level 1 (CVA) -Emergency Medical Technician - Basic -Entrepreneurship and Small Business -FAA Part 107 Remote Drone Pilot -FANUC Robot Operator I -IAED Emergency Telecommunicator -Information Technology Specialist: Java -Machining Measurement, Material and Safety Level I -Medical Laboratory Assistant -Microsoft Office Specialist: Microsoft Access Expert -Microsoft Office Specialist: Microsoft Excel Expert -Microsoft Office Specialist: Microsoft Word Expert -Patient Care Technician (PCT) -Pharmacy Technician -Phlebotomy Technician -Registered Dental Assistant X-Ray Certificate -ServSafe Manager

* CTE courses are subject to change due to student enrollment, facilities and staff availability.

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South Texas ISD

South Texas ISD does not discriminate on the basis of race, color, national origin, gender, religion, age, disability or genetic information in employment or provision of services, programs or activities.

South Texas ISD no discrimina de acuerdo a raza, color, origen nacional, genero, religión, edad, información genética, o incapacidad en el empleo o la disposición de servicios, programas o actividades.

www.stisd.net | 956.565.2454