

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 2022-2023 School Year, we will have 21 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!























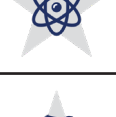





Our STISD Career & Technical Education Guide will help provide a perspective for current students and families to find their fit. We encourage you to look through the guide to learn more about available programs at STISD. The short quizzes and sample occupations will help you to define your areas of 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.

CTE at-a-Glance

		 South Texas ISD Health Professions GRADES 9-12 MERCEDOS	 South Texas ISD Medical Professions GRADES 9-12 OLMITO	 South Texas ISD Science Academy GRADES 9-12 MERCEDOS	 South Texas ISD World Scholars GRADES 9-12 EDINBURG	 South Texas ISD Virtual Academy GRADES 9-12
	Agriculture, Food, and Natural Resources					
	Arts, AV Technology, & Communications					
	Business, Marketing, and Finance					
	Health Science					
	Hospitality and Tourism					
	Law and Public Service					
	Manufacturing					
	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



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 Veterinarian Assistant (CVA)

Programs of Study

Animal Science

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

Occupations:

- Animal Breeders
- Animal Scientists
- Medical Scientists
- Veterinarians
- Zoologists and Wildlife Biologists

Median Wage

\$39,135
\$57,533
\$63,898
\$93,496
\$67,309

Annual Openings

28
22
435
294
45

% Growth

9%
12%
27%
24%
32%





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

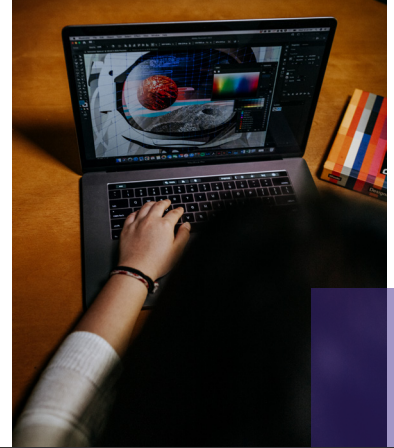
Career & Technical Student Organizations

- SkillsUSA
- Technology Student Association

Programs of Study

Graphic Design & Multimedia Arts

- Principles of Arts, A/V Technology & Communications or Video Game Design
- Graphic Design and Illustration I or Animation I or Game Programming Design
- Graphic Design and Illustration II/Lab or Animation II or Web Game Development
- Practicum in Graphic Design and Illustration
- Career Preparation I



Occupations:

- Graphic Designers
- Multimedia Artists and Animators

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
- Practicum in Audio/Video Production



Occupations:

- Sound Engineering Technicians
- Camera Operators, Television, Video and Motion Picture
- Audio and Video Equipment Technicians
- Film and Video Editors

Median Wage

\$39,562
\$50,024
-
\$40,581
\$47,382

Annual Openings

79
129
-
757
118

% Growth

27%
9%
-
29%
23%





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 or Expert-Excel,
- Microsoft Office Specialist or
- Expert-Word

Career & Technical Student Organizations

- Business Professionals of America



Programs of Study

Business Management

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

Occupations:

- Administrative Service Managers
- Management Analysts
- General and Operations Managers
- Operations Research Analysts
- Supervisors of Administrative Support Workers

Median Wage

\$96,138
\$87,651
\$107,640
\$78,083
\$57,616

Annual Openings

2,277
4,706
18,679
1,128
14,982

% Growth

21%
32%
20%
38%
20%





Business, Marketing & Finance

Entrepreneurship

- Principles of Business, Marketing & Finance or Business Information Management I
- Entrepreneurship
- Mobile Application Development
- Practicum in Entrepreneurship

Occupations:

- General and Operations Managers
- Management Analysts
- Managers, All Others

Median Wage

\$107,640
\$87,651
\$113,110

Annual Openings

18,679
4,706
1,794

% Growth

20%
32%
26%



Programs of Study

Marketing & Sales

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

Occupations:

	Median Wage	Annual Openings	% Growth
• Marketing Research Analysts and Marketing Specialists	\$70,346	4,664	40%
• Insurance Sales Agents	\$43,181	5,886	30%
• First-Line Supervisors of Retail Sales Workers	\$72,550	2,826	15%
• Wholesale and Retail Buyers	\$51,106	1,229	19%





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 Personal Trainer
- EKG/ECG Technician
- Phlebotomy Technician
- Emergency Medical Technician- Basic
- Registered Dental Assistant
- Certified Pharmacy Technician
- Clinical Medical Assistant
- Patient Care Technician
- Certified Ophthalmic Technician
- Limited Licensed Radiology Technologist*
- Medical Coding & Billing Specialist
- Licensed Vocational Nurse*

* Pending partnership for accreditation

Career & Technical Student Organizations

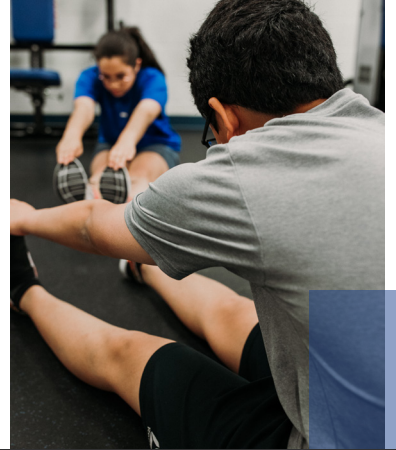
- HOSA- Future Health Professionals



Programs of Study

Exercise Science & Wellness

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



Occupations:

- Athletic Trainers
- Exercise Physiologists
- Coaches + Scouts
- Dietitians + Nutritionists
- Recreational Therapists

Median Wage

\$53,450
\$41,662
\$40,010
\$57,762
\$45,906

Annual Openings

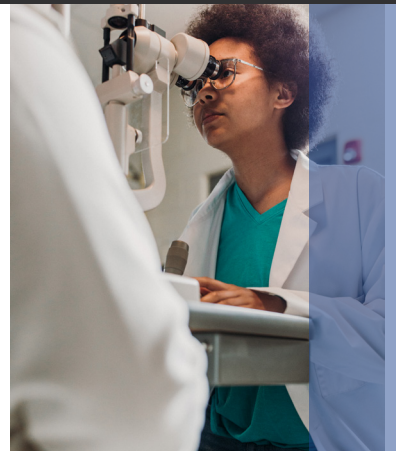
215
33
2,133
428
74

% Growth

22%
33%
23%
24%
24%

Healthcare Diagnostics

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



Occupations:

- Diagnostic Medical Sonographers
- Phlebotomists
- Nuclear Medicine Technologists
- Radiologic Technologists
- Magnetic Resonance Imaging Technologists

Median Wage

\$69,909
\$30,597
\$75,962
\$55,494
\$68,661

Annual Openings

495
1,442
91
1,196
217

% Growth

35%
36%
13%
19%
21%

Health Science



Healthcare Therapeutic

- Principles of Health Science or Medical Terminology
 - Introduction to Dental Science or Dental Anatomy & Physiology
 - Introduction to Pharmacy Science or Pharmacy I
- Anatomy & Physiology
- Health Science Theory/Clinical or Pathophysiology
- Practicum in Health Science



Occupations:

- Medical Assistants
- Surgical Technologists
- Dental Hygienists
- Physicians and Surgeons
- Dental Assistants

Median Wage

\$29,598
\$45,032
\$73,507
\$213,071
\$34,840

Annual Openings

8,862
1,150
1,353
1,151
4,422

% Growth

30%
20%
38%
30%
31%

Medical Therapy

- Principles of Health Science or Medical Terminology
- Allied Health Therapeutic Services
- Health Science Theory/Clinical
- Practicum in Health Science



Occupations:

- Speech Language Pathologists
- Respiratory Therapists
- Occupational Therapists
- Physical Therapy Assistants
- Radiation Therapists

Median Wage

\$73,070
\$57,429
\$92,227
\$70,200
\$70,658

Annual Openings

1,068
830
834
1,268
101

% Growth

25%
20%
34%
44%
23%

Programs of Study

Health Informatics

- Principles of Health Science or Medical Terminology
- Business Information Management and Anatomy & Physiology
- Health Informatics
- Health Science Theory/Clinical & Math for Medical Professionals



Occupations:

- Medical Records and Health Information Technicians
- Medical and Health Service Managers
- Billing and Posting Clerks

Median Wage

\$35,922
-
\$93,995
-
\$35,485

Annual Openings

1,588
-
2,562
-
5,775

% Growth

24%
-
29%
-
25%

Nursing Science

- Principles of Nursing & Medical Terminology
- Anatomy & Physiology
- Health Science Theory/Clinical & Pathophysiology
- 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

1. Can you juggle several tasks at the same time?
2. 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

- Certified Fundamentals Cook
- ServSafe Manager

Career & Technical Student Organizations

- SkillsUSA

Programs of Study

Culinary Arts

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

Occupations:

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

Median Wage

\$55,619
\$43,285
\$34,382

Annual Openings

1,561
1,366
236

% Growth

28%
25%
11%





Law & Public Service

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

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

Endorsements

Public Services

Certifications

- Non-Commissioned Security Office Level II
- Paralegal Associates Degree*
- * Pending partnership for accreditation

Career & Technical Student Organizations

- SkillsUSA

Programs of Study

Law Enforcement

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



Occupations:

- Police and Sheriff's Patrol Officers
- Probation Officers and Correctional Treatment Officers
- Correctional Officers and Jailers
- Immigration and Customs Inspectors
- First-Line Supervisors of Police and Detectives

Median Wage

\$60,112
\$44,054
-
\$40,186
\$78,104
\$91,312

Annual Openings

5,241
793
-
4,683
1,236
253

% Growth

13%
9%
-
9%
9%
25%

Legal Studies

- Principles of Law, Public Safety, Corrections & Security or Court Systems & Practices
- Business law
- 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%



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

- American Welding Society

Career & Technical Student Organizations

- SkillsUSA

Programs of Study

Welding

- Introduction to Welding
- Welding I
- Welding II
- Practicum in Manufacturing or Career Preparation I

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%





Science, Technology, Engineering & Mathematics

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

- CompTIA A+ and/or IT Fundamentals
- Autodesk Certified Professional User (ACU)- Inventor
- Apple App Development with Swift

Career & Technical Student Organizations

- SkillsUSA
- Technology Student Association



Programs of Study

Biomedical

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



Occupations:

- Medical and Laboratory Technicians
- Biological Technicians
- Forensic Science Technicians
- Chemical Technicians
- Medical and Clinical Laboratory Technologists

Median Wage

\$37,981
\$42,931
\$48,152
\$49,733
\$58,760

Annual Openings

1,159
452
171
672
1,166

% Growth

28%
17%
35%
10%
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 Digital Electronics
- PLTW Engineering Science (Principles of Engineering)
- PLTW Engineering Design & Development and PLTW Computer Integrated Manufacturing or PLTW Aerospace Engineering or PLTW Civil Engineering & Architecture

Occupations:

- Aerospace Engineers
- Industrial Engineers
- Mechanical Engineers
- Chemical Engineers
- Electrical Engineers

Median Wage

\$110,843
\$97,074
\$91,107
\$112,819
\$98,405

Annual Openings

481
1,263
1,535
474
1,137

% Growth

9%
10%
11%
9%
10%



Programs of Study

Programming & Software Development

- Fundamentals of Computer Science *or* AP Computer Science Principles
- AP Computer Science A
- 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

- Automotive Service Excellence (ASE) Entry Level

Career & Technical Student Organizations

- SkillsUSA



Programs of Study

Automotive

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

Occupations:

- Automotive Body and Related Repairers
- Automotive Service Technician and Mechanics

Median Wage

\$40,144
\$38,459

Annual Openings

1,456
5,557

% Growth

25%
18%



Industry-Based Certifications

- 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 Suspension and Steering (SS)
- Autodesk Certified User-Inventor for Mechanical Design
- Autodesk Certified User-Revit Architecture
- AWS Certified Welder
- AWS D1.1 Structural Steel
- AWS D9.1 Sheet Metal Welding
- Certified Clinical Medical Assistant (CCMA)
- Certified Dental Assistant
- Certified EKG Technician
- Certified Fundamentals Cook
- Certified Nurse Aide (CNA)

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

Industry-Based Certifications

- Certified Ophthalmic Technician
- Certified Personal Trainer (CPT)
- Certified Veterinary Assistant, Level 1 (CVA)
- CompTIA IT Fundamentals+
- Emergency Medical Technician - Basic
- Entrepreneurship and Small Business
- FAA Part 107 Remote Drone Pilot
- Machining CNC Mill Operations Level I
- Microsoft Office Specialist: Microsoft Excel Expert (Excel and Excel 2019)
- Microsoft Office Specialist: Microsoft Word Expert (Word and Word 2019)
- Non-Commissioned Security Officer Level II
- Patient Care Technician (PCT)
- Pharmacy Technician
- Phlebotomy Technician
- ServSafe Manager
- Small Engine Technology

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

2022-2023



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.