Career Cluster: Arts & Humanities

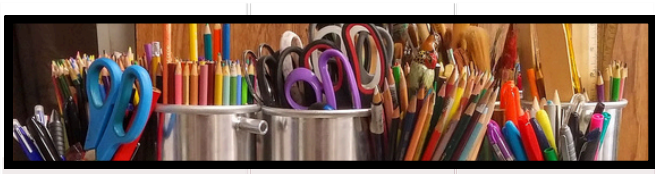
Program: Fine Art - Art

The Arts and Humanities plan in Fine Arts with a focus on art would develop strong creative and technical skills through hands-on experience in drawing, painting, sculpture, and other visual media. They would learn about art history, cultural influences, and different artistic movements, gaining an appreciation for how art reflects society and human expression. Through projects and critiques, students would strengthen their ability to think critically, communicate ideas visually, and solve problems creatively. Additionally, they would build a portfolio showcasing their artistic growth, preparing them for further study or careers in the visual arts and related fields.

Secondary Courses for High School Credit

- Art 1-4





Example Postsecondary Opportunities

Apprenticeships
- Studio Art Assistant
- Photography Assistant

Associate Degrees
- Fine Arts
- Graphic Design
- Studio Art

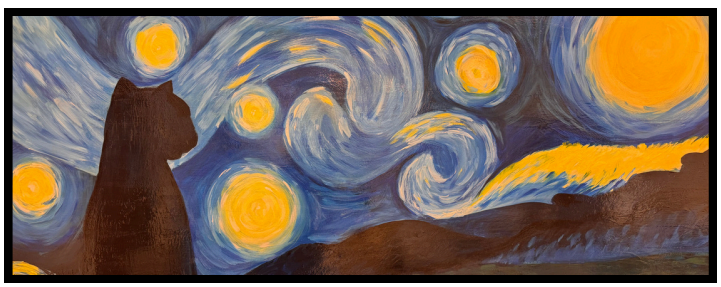
Bachelor's Degrees
- Bachelor of Fine Arts
- Art History
- Graphic Design

Master's, Doctoral, and Professional Degrees
- Masters of Fine Arts
- Masters in Art Education

Additional Stackable IBCs/License
- Visual Arts Specialist
- Art Therapy Certificate

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Work with local artists, galleries, or art studios to gain real-world experience in creating, curating, or displaying art. • Community Art Projects – Collaborate on murals, public art installations, or school beautification projects.
Expanded Learning Opportunities	• Summer Art programs or camps • Field trips to museums • National Art Honor Society • Art showcases and competitions



Successful completion of the Art program of study will fulfill requirements of the Arts & Humanities endorsement.

Example Aligned Occupations

Art Directors
Median Wage: $80,944
Annual Openings: 1576
10-Year Growth: 18.5%

Fine Artist
Median Wage: $33,680
Annual Openings: 200
10-Year Growth: 17.5%

Art Teacher
Median Wage: $76,999
Annual Openings: 770
10-Year Growth: 10%

Data Source: My Texas Future accessed: 11/11/2025

For more information visit:
https://www.mytexasfuture.org/career-explorer

Fine Arts - Art

Career Cluster: Arts & Humanities

Program: Fine Art - Band

The Arts and Humanities plan in Fine Arts with a focus on Band will develop advanced musical skills through performance, theory, and ensemble collaboration. Students learn to read and interpret music, refine instrumental techniques, and explore various styles and genres of band literature. Participation in marching band, concert band, and small ensembles builds discipline, teamwork, and leadership skills. Through rehearsals, performances, and competitions, students gain confidence, creativity, and a deep appreciation for the role of music in culture and society.



Secondary Courses for High School Credit

- Band 1-4

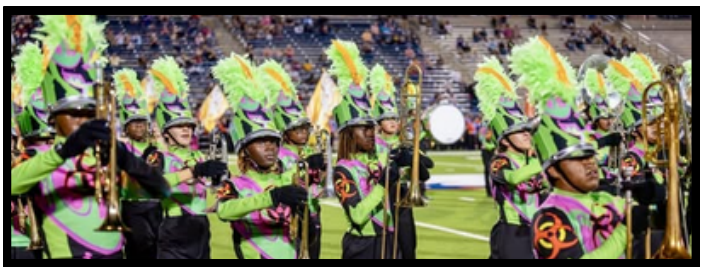




Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Assist music teachers, local bands, or community ensembles with rehearsals, performances, and event coordination. • Student Conductor or Section Leader – Take on leadership roles within the band to develop conducting, communication, and mentoring skills.
Expanded Learning Opportunities	• Summer Music Camps or workshops • Honors bands and competitions • Community or youth ensembles • Student leadership conferences

Students can also participate in Jazz Band and Marching Band



Successful completion of the Band program of study will fulfill requirements of the Arts & Humanities endorsement.

Example Postsecondary Opportunities

Apprenticeships
- Music Education Apprentice
- Sound or Audio Tech Apprentice

Associate Degrees
- Fine Arts
- Music Business
- Music Education foundations

Bachelor's Degrees
- Music in Performance
- Music Education
- Audio Engineering or Music Production

Master's, Doctoral, and Professional Degrees
- Masters of Music
- Masters in Music Education

Additional Stackable IBCs/License
- Instrument Repair Certification
- Music Therapy Certificate

Example Aligned Occupations

Sound Engineering Technician
Median Wage: $46,088
Annual Openings: 84
10-Year Growth: 10%

Music Director
Median Wage: $82,342
Annual Openings: 196
10-Year Growth: 10%

Instrument Repair
Median Wage: $47,057
Annual Openings: 39
10-Year Growth: 8%

Data Source: My Texas Future accessed: 11/11/2025

For more information visit:
https://www.mytexasfuture.org/career-explorer

Fine Arts - Band

Career Cluster: Arts & Humanities

Program: Fine Art - Choir

The Arts and Humanities plan in Fine Arts with a focus on Choir will develop strong vocal, musical, and collaborative skills through individual and ensemble performance. Students learn music theory, sight-reading, vocal techniques, and stage presence while exploring various musical genres and cultural traditions. Participation in choir builds confidence, discipline, and teamwork, as students prepare for concerts, competitions, and community performances. Through rehearsal and performance, they also gain leadership and communication skills that support success in both artistic and academic pursuits.

Secondary Courses for High School Credit

- Choir 1-4





Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Volunteer or work with local music festivals or contests to gain experience in arts event management. • Participate in school, community, and professional choir performances to gain real-world stage experience.
Expanded Learning Opportunities	• All-Region, All-State, and Honors Choirs • Summer vocal camps and workshops • Private voice lessons • Choir Festivals and competitions

Students can also participate in Show Choir



Successful completion of the Choir program of study will fulfill requirements of the Arts & Humanities endorsement.



Example Postsecondary Opportunities

Apprenticeships
- Vocal Coaching
- Studio Apprentice

Associate Degrees
- Music (Vocal Concentration)
- Performing Arts
- Music Business

Bachelor's Degrees
- Music in Vocal Performance
- Musical Theatre
- Music Education

Master's, Doctoral, and Professional Degrees
- Music in Performance or conducting
- Masters in Music Education

Additional Stackable IBCs/License
- Voice Pedagogy Certificate
- Choral Conducting

Example Aligned Occupations

Music Therapist

Median Wage: $68,765
Annual Openings: N/A
10-Year Growth: N/A

Music Agents

Median Wage: $71,304
Annual Openings: 50
10-Year Growth: 14%

Singer

Median Wage: $38/hr
Annual Openings: 522
10-Year Growth: 5%

Data Source: My Texas Future accessed: 11/11/2025

For more information visit:
https://www.mytexasfuture.org/career-explorer

Fine Arts - Choir

Career Cluster: Arts & Humanities

Program: Fine Art - Dance

the Arts and Humanities plan in Fine Arts with a focus on Dance will develop technical skill, artistic expression, and physical discipline through a variety of dance styles such as ballet, jazz, modern, contemporary, hip-hop, and cultural dance forms. Students learn choreography, performance techniques, anatomy for dancers, and the history of dance as an art form. Participation in performances, competitions, and collaborative projects helps students cultivate creativity, teamwork, and confidence. Through this pathway, students gain the foundation for further study or careers in performance, choreography, dance education, or arts management.

Secondary Courses for High School Credit

- Dance 1-4



Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Work with wellness or performing arts centers to explore connections between dance, fitness, and health. • Teach or perform for youth programs, senior centers, or community festivals.
Expanded Learning Opportunities	• Summer Dance Camps • Cultural Dance Experiences • Dance Conventions and Competitions • Dance Company or Ensemble Membership

Students can also participate in Claw Crew or the Step Team



Successful completion of the Dance program of study will fulfill requirements of the Arts & Humanities endorsement.



Example Postsecondary Opportunities

Apprenticeships
- Choreography Assistant
- Fitness instructor Apprentice

Associate Degrees
- Dance
- Performing Arts (Dance Concentration)
- Fitness or Kinesiology (Dance emphasis)

Bachelor's Degrees
- Bachelors in Dance
- Kinesiology (Dance Focus)
- Arts Management

Master's, Doctoral, and Professional Degrees
- Movement Therapy or Somatic Studies
- Dance Education

Additional Stackable IBCs/License
- Dance Teacher or Studio Owner Cert
- Choreography and Performance Cert

Example Aligned Occupations

Choreographers

Median Wage: $41,381
Annual Openings: 237
10-Year Growth: 20%

Fitness Instructor

Median Wage: $38,847
Annual Openings: 1250
10-Year Growth: 25%

Entertainment Manager

Median Wage: $72,687
Annual Openings: 305
10-Year Growth: 20%

Data Source: My Texas Future accessed: 11/11/2025

For more information visit:
https://www.mytexasfuture.org/career-explorer

Fine Arts - Dance

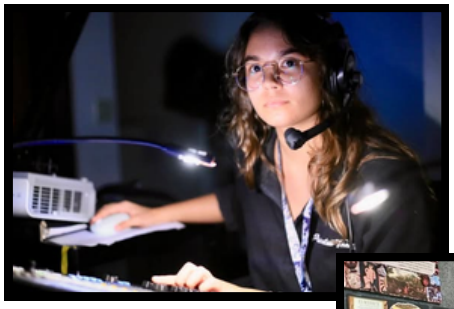
Career Cluster: Arts & Humanities

Program: Fine Art - Theatre

The Arts and Humanities plan in Fine Arts with a focus on Theatre will develop creative, performance, and communication skills through acting, script analysis, and stage production. Students learn to interpret dramatic literature, build character, and convey emotion through movement and voice. Participation in school and community productions fosters teamwork, self-discipline, and confidence. Through rehearsal and performance, students gain a deeper understanding of storytelling, culture, and collaboration in the performing arts.

Secondary Courses for High School Credit

- Theatre Arts 1-4 or
- Tech Theatre 1-4





Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Work alongside theatre teachers or directors during rehearsals and performances. • Student Director or Stage Manager – Gain leadership experience by organizing cast rehearsals and coordinating stage cues.
Expanded Learning Opportunities	• Theatre Competitions and Festivals • Summer Camps • Improv and Playwriting Workshops • Thespian Honors Society

Students can also participate in Production Theatre



Successful completion of the Theatre program of study will fulfill requirements of the Arts & Humanities endorsement.



Example Postsecondary Opportunities

Apprenticeships
- Stage Management Apprentice
- Talent Agency Apprentice

Associate Degrees
- Theatre Arts
- Performing arts
- Film or Media Production

Bachelor's Degrees
- Theatre Arts
- Theatre Education
- Musical Theatre

Master's, Doctoral, and Professional Degrees
- Master of Fine Arts in Acting/Directing/Playwriting
- Theatre Studies or Art Administration

Additional Stackable IBCs/License
- Acting and Voice Certifications
- Arts Admin or Nonprofit Leadership Certification

Example Aligned Occupations

Set and Exhibit Designers

Median Wage: $52,000
Annual Openings: 121
10-Year Growth: 16%

Director

Median Wage: $61,827
Annual Openings: 791
10-Year Growth: 9%

Riggers

Median Wage: $49,879
Annual Openings: 472
10-Year Growth: 11%

Data Source: My Texas Future accessed: 11/11/2025

For more information visit:
https://www.mytexasfuture.org/career-explorer

Fine Arts - Theatre

Career Cluster: Arts & Humanities

Program: LOTE - Spanish

the Arts and Humanities plan in Languages Other Than English (Spanish) will develop proficiency in speaking, reading, writing, and understanding the Spanish language while gaining deep insight into Hispanic cultures and traditions. Through interactive communication, literature, film, and cultural study, students build strong linguistic and intercultural skills that enhance global awareness and critical thinking. This pathway promotes empathy, collaboration, and cultural appreciation while preparing students for success in college, careers, and communities in an increasingly interconnected world.

Secondary Courses for High School Credit

- Spanish 1 & 2
- Spanish 3 Honors
- AP Spanish Language
- AP Spanish Literature



Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Volunteer with organizations serving Spanish-speaking populations. • Create bilingual newsletters, podcasts, or videos for school or local organizations.
Expanded Learning Opportunities	• Spanish Clubs or Honor Societies • Study Abroad programs • Language Immersion Camps • Cultural Projects



Successful completion of the LOTE program of study will fulfill requirements of the Arts & Humanities endorsement.



Example Postsecondary Opportunities

Apprenticeships
- Translation Apprentice
- Hospitality and Tourism Apprentice

Associate Degrees
- Spanish or Foreign Language
- International Studies
- Translation and Interpretation

Bachelor's Degrees
- Linguistics
- International Business or Relations
- Translation and Interpretation Studies

Master's, Doctoral, and Professional Degrees
- Spanish or Hispanic Studies
- Bilingual Education or TESOL

Additional Stackable IBCs/License
- Seal of Biliteracy
- Bilingual Education Certification
- Professional Translator or Interpreter Certification

Example Aligned Occupations

Interpreters/Translators

Median Wage: $56,555
Annual Openings: 1449
10-Year Growth: 17%

LOTE Teachers

Median Wage: $79,286
Annual Openings: 120
10-Year Growth: 8%

Travel Agent

Median Wage: $46,735
Annual Openings: 450
10-Year Growth: 12%

Data Source: My Texas Future accessed: 11/11/2025

For more information visit:
https://www.mytexasfuture.org/career-explorer

LOTE - Spanish

Career Cluster: Arts & Humanities

Program: Social Studies

the Arts and Humanities plan with a focus on Social Studies will develop a deep understanding of history, geography, government, economics, and human behavior. Students learn to think critically about global issues, analyze complex social systems, and understand how historical and cultural contexts shape the world today. Through research, discussion, and problem-solving, students strengthen communication, analytical, and leadership skills.

Secondary Courses for High School Credit

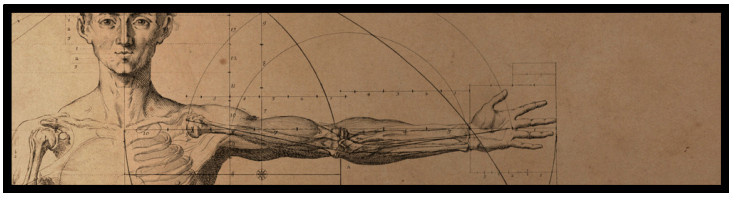
- World Geography
- Government & Economics
- Psychology & Sociology
- US History
- World History



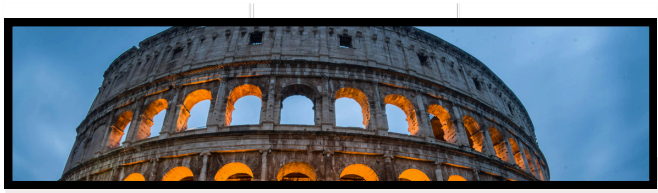
AP	AP Human Geo, AP US History
Dual Credit	Dual Credit Social Studies options offered through Collin

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Internship with Local Government or Civic Organizations – Gain real-world experience in policy, public administration, or community planning.
Expanded Learning Opportunities	• History or Debate club participation • Student Council • UIL Competitions • Community History or Cultural projects



Successful completion of the Social Studies program of study will fulfill requirements of the Arts & Humanities endorsement.



Example Postsecondary Opportunities

Apprenticeships
- Government worker apprentice
- Museum/Curator Assistant

Associate Degrees
- History
- Political Science
- Public Administration or Legal Studies

Bachelor's Degrees
- Economics
- Philosophy or Humanities
- Political Science

Master's, Doctoral, and Professional Degrees
- Master of Public Administration
- Juris Doctor

Additional Stackable IBCs/License
- Paralegal or Legal Assistant
- Public Administration

Example Aligned Occupations

Economists

Median Wage: $116,870
Annual Openings: 80
10-Year Growth: 17%

Judges

Median Wage: $103,646
Annual Openings: N/A
10-Year Growth: 2%

Archeologists

Median Wage: $60,509
Annual Openings: 55
10-Year Growth: 23%

Data Source: My Texas Future accessed: 11/11/2025

For more information visit:
https://www.mytexasfuture.org/career-explorer

Social Studies

Career Cluster: Agricultural Technology & Mechanical Systems

Program: Agricultural Mechanics

The Agricultural Technology and Mechanical Systems program of study focuses on occupational and educational opportunities associated with applying engineering technology and biological science to agricultural problems related to power and machinery, electrification, structures, soil and water use, and processing agricultural products. This program of study includes diagnosing, repairing, or overhauling farm machinery and vehicles, such as tractors, harvesters, dairy equipment, and irrigation systems.

Secondary Courses for High School Credit

First Year	Principles of Agriculture
Second Year	Ag Mechanics
Third Year	Ag Structures & Design
Fourth Year	Ag Practicum









Example Postsecondary Opportunities

Apprenticeships
- Farm Equipment Mechanic I

Associate Degrees
- Diesel Mechanics Technology
- Industrial Mechanics and Maintenance Technology

Bachelor's Degrees
- Agricultural Engineering
- Agricultural Systems Management

Master's, Doctoral, and Professional Degrees
- Agricultural Engineering
- Industrial Technology

Additional Stackable IBCs/License
- Diesel Equipment Technology-Off Highway
- Specialization CER1
- Accredited Farm Manager

Example Aligned Occupations

Farm Equipment Mechanics and Service Technicians
Median Wage: $46,582
Annual Openings: 326
10-Year Growth: 23%

Mobile Heavy Equipment Mechanics
Median Wage: $57,943
Annual Openings: 2,637
10-Year Growth: 31%

Farmers, Ranchers, and Other Agricultural Managers
Median Wage: $65,490
Annual Openings: 28,020
10-Year Growth: 4%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024.

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Participate in a farm mechanic apprenticeship at an equipment production company • Intern at an equipment manufacturing facility working with agricultural engineers
Expanded Learning Opportunities	• Participate in an FFA career, leadership, and speaking contest like an agriscience fair • Participate in anagriculture robotics event

Aligned Industry-Based Certifications

- American Welding Society Certs

American Welding Society

Successful completion of the Agricultural Technology and Mechanical Systems program of study will fulfill requirements of the Business and Industry endorsement.

For more information visit:
https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources

Agricultural Mechanics

Career Cluster: Agriculture, Food, & Natural Resources

Program: Animal Sciences

The Animal Science program of study focuses on occupational and educational opportunities associated with the science, research, and business of animals and other living organisms. This program of study includes applying biology and life science to real-world life processes of animals and wildlife, either in laboratories or in the field, which could include a veterinary office, a farm or ranch, or any outdoor area harboring animal life. Students will research and analyze the growth and destruction of species and research or diagnose diseases and injuries of animals.

Secondary Courses for High School Credit

First Year	Principles of Agriculture Entrepreneurship*
Second Year	Livestock Production
Third Year	Veterinary Science
Fourth Year	Advance Animal Science Practicum of AFNR





Aligned Advanced Academic Courses

AP	AP Biology 2

Students should be advised to consider these course opportunities to enrich their preparation. AP courses not listed under the Secondary Courses for High School Credit section of this framework document do not count towards concentrator/completer status for this program of study.

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Shadow an animal scientist ina biology lab to learnabout applying science to understand animals and wildlife • Intern in a veterinary clinic, caring for animals and wildlife being treated in the clinic
Expanded Learning Opportunities	• Participate in an FFA career, leadership, and speaking contest like an agriscience fair • Attend an agricultural industry seminar

Aligned Industry-Based Certifications

- Fundamentals of Animal Science
  Vet Med Application Cert

Successful completion of the Animal Science program of study will fulfill requirements of a Business and Industry endorsement.





Example Postsecondary Opportunities

Apprenticeships
- Reproduction Technician

Associate Degrees
- Biological and Physical Sciences
- Entomology

Bachelor's Degrees
- Animal Science
- Zoology/Animal Biology

Master's, Doctoral, and Professional Degrees
- Marine Sciences
- Biotechnology

Additional Stackable IBCs/License
- Veterinarian
- Certified Veterinary Technician

Example Aligned Occupations

Veterinary Assistants and Laboratory Animal Caretakers
Median Wage: $29,906
Annual Openings: 1,348
10-Year Growth: 24%

Veterinary Technologists andTechnicians
Median Wage: $33,679
Annual Openings: 1,217
10-Year Growth: 24%

Veterinarian
Median Wage: $103,160
Annual Openings: 347
10-Year Growth: 26%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024

For more information visit:
https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources

Animal Science

Career Cluster: Agriculture, Food, & Natural Resources

Program: Plant Sciences

The Plant Science program of study focuses on occupational and educational opportunities associated with the science, research, and business of plants and other living organisms. This program of study includes the application of biology and life science to real-world life processes of plants and vegetation, either in laboratories or in the field.



Secondary Courses for High School Credit

First Year	Principles of Agriculture Entrepreneurship*
Second Year	Floral Design
Third Year	Adv. Floral Design
Fourth Year	Adv Plant and Soil Science Practicum of AFNR



Aligned Advanced Academic Courses

AP	AP Biology 2
Dual Credit	Environmental Science

Students should be advised to consider these course opportunities to enrich their preparation. AP or IB courses not listed under the Secondary Courses for High School Credit section of this framework document do not count towards concentrator/completer status for this program of study.

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Work in a part-time job at a landscaping company to learn about production and management of plants. • Intern at an agricultural research company, working alongside a biological technician to learn about application of biology to plant production
Expanded Learning Opportunities	• Participate in an FFA career, leadership, and speaking contest like an agriscience fair • Participate in an industry-related competition like an agriscience fair

Aligned Industry-Based Certifications

- Principles of Floral Design Certification

Example Postsecondary Opportunities

Apprenticeships
- Horticulturist

Associate Degrees
- Biology/Biological Sciences
- Biological and Physical Sciences

Bachelor's Degrees
- Horticulture
- Plant Pathology/Phytopathology

Master's, Doctoral, and Professional Degrees
- Plant Breeding
- Botany/Plant Biology

Additionall Stackable IBCs/License
- Nursery Floral License
- Horticulturist Certification

Example Aligned Occupations

Pesticide Handlers, Sprayers, andApplicators,Vegetation
Median Wage: $46,153
Annual Openings: 205
10-Year Growth: 17%

BiologicalTechnicians
Median Wage: $45,787
Annual Openings: 879
10-Year Growth: 14%

Farmers, Ranchers, and OtherAgricultural Managers
Median Wage: $65,490
Annual Openings: 28,020
10-Year Growth: 4%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024.

For more information visit:
https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources

Successful completion of the Plant Science program of study will fulfill requirements of the Business and Industry endorsement.

Plant Science

Career Cluster: Arts, Audio Visual Technology, & Communications

Program: Audio/Video Production

(digital communication)

The Digital Communications program of study focuses on occupational and educational opportunities associated with the production of audio and visual media formats for various purposes, such as TV broadcasts, advertising, video production, or motion pictures. The program of study includes operating machines and equipment such as microphones, sound speakers, video screens, projectors, video monitors, sound and mixing boards, and related electronic equipment to record sound and images.

Secondary Courses for High School Credit

First Year	Professional Communications Entrepreneurship*
Second Year	A/V Production 1 A/V Production 2
Third Year	Practicum in A/V



Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Shadow a sound designer to learn how sound and foley are created for movies or podcasts • Intern with a technical director at a sports team, recording studio, or radio station • Shadow a technician on a live news broadcast, concert, or other event
Expanded Learning Opportunities	• Participate in SkillsUSA or TSA • Participate in Student Television Network • Capture and edit film and audio for a podcast with a local community organization

Aligned Industry-Based Certifications

- Adobe Digital Experience Certification Program

PROFESSIONAL

Successful completion of the Digital Communications program of study will fulfill requirements of the Business and Industry endorsement.



Example Postsecondary Opportunities

Apprenticeships
- Light Technician

Associate Degrees
- Commercial and Advertising Art
- Animation, Interactive Technology, Video Graphics, and Special Effects

Bachelor's Degrees
- Cinematography and Film/Video Production
- Recording Arts Technology

Master's, Doctoral, and Professional Degrees
- Animation, Interactive Technology, Video Graphics, and Special Effects
- Communications Technology

Additional Stackable IBCs/License
- CompTIA Digital Media and Entertainment Professional Certification (DMEP)

Example Aligned Occupations

Camera Operators, Television, Video, and Film
Median Wage: $48,422
Annual Openings: 155
10-Year Growth: 20%

Audio and Video Technicians
Median Wage: $46,319
Annual Openings: 626
10-Year Growth: 30%

Producers and Directors
Median Wage: $65,029
Annual Openings: 522
10-Year Growth: 12%

Data Source: TexasWages,TexasWorkforceCommission. Retrieved 3/8/2024.

For more information visit:
https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources

Digital Communications

Career Cluster: Transportation, Distribution, and Logistics

Program: Automotive Technology

The Automotive Technology program introduces students to foundational vehicle systems, maintenance, safety, tools, and diagnostics before progressing into hands-on training with repairs, simulations, and real vehicles. Advanced coursework prepares students for ASE certifications by focusing on braking, electrical, suspension, steering, and engine systems to build career-ready skills in automotive repair and diagnostics.

Secondary Courses for High School Credit

First Year	Automotive Basics Entrepreneurship*
Second Year	Automotive Technology 1
Third Year	Advanced Automotive Technology



Work-Based Learning and Expanded Learning Opportunities

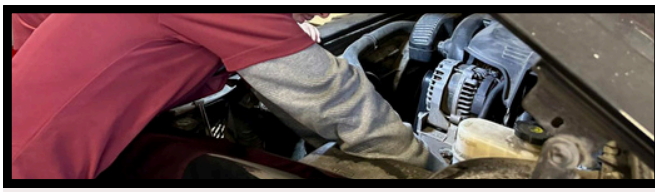
Work-Based Learning Activities	• Shadow an automotive technician at a car dealership • Intern at a rental car company and assist technicians with vehicle maintenance • Work at a local automotive repair shop and hold both customer service duties and automatic repair duties
Expanded Learning Opportunities	• Join a related automotive association and attend events • Participate in SkillsUSA

Aligned Industry-Based Certifications

- ASE Service Technician

Entry-Level Certification Program
FORMERLY ASE STUDENT CERTIFICATION

Successful completion of the Automotive Technology program of study will fulfill requirements of the Business and Industry endorsement.



Example Postsecondary Opportunities

Apprenticeships
- Automotive Technician Apprenticeship

Associate Degrees
- Automobile/Automotive Mechanics Technology
- Autobody/Collision and Repair Technology

Bachelor's Degrees
- Autobody/Collision and Repair Technology
- Heavy Equipment Maintenance Technology

Additional Stackable IBCs/License
- Automobile and Light Truck Certification (A1 – A9)

Example Aligned Occupations

Automotive Service Technicians and Mechanics
Median Wage: $44,809
Annual Openings: 6,285
10-Year Growth: 10%

Bus and Truck Mechanics and Diesel Engine Specialists
MedianWage:$50,967
Annual Openings: 3,096
10-Year Growth: 19%

First-Line Supervisors of Mechanics, Installers, and Repairers
Median Wage: $66,535
Annual Openings: 5,019
10-YearGrowth:19%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024.

For more information visit:
https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources

Automotive Technology

Career Cluster: Business, Marketing, and Finance

Program: Business Management

The Business Management program of study focuses on occupational and educational opportunities associated with planning, directing, and coordinating the administrative services and operations of an organization. It includes formulating policies, managing daily operations, and allocating the use of materials and human resources. This program of study also introduces students to mathematical modeling tools and organizational evaluation methods.

Secondary Courses for High School Credit

First Year	Business Information Management
Second Year	Entrepreneurship
Third Year	Team Building Principles of Management
Fourth Year	Business Ethics/Prob Solve & Dec Making Leadership/Organizational Behavior



Aligned Advanced Academic Courses

Dual Credit	Third and Fourth Year courses are through Collin College

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Intern at local business in the HR department • Shadow the COO of a local business or chamber of commerce
Expanded Learning Opportunities	• Participate in BPA,DECA, FBLA, Young Billionaires Club, or related UIL events • Explore student membership in related professional organizations

Aligned Industry-Based Certifications

- TBD by district

Successful completion of the Business Management program of study will fulfill requirements of the Business and Industry endorsement.



Example Postsecondary Opportunities

Associate Degrees
- Business Administration and Management
- Human Resources Management

Bachelor's Degrees
- Business Analytics
- Accounting and Business

Master's, Doctoral, and Professional Degrees
- Business Administration and Management
- Organizational Leadership

Additional Stackable IBCs/License
- Professional Certificate in Team Leadership
- Property Tax Professionals

Example Aligned Occupations

First-Line Supervisors of Office and Administrative Support Workers
Median Wage: $61,735
Annual Openings: 18,874
10-Year Growth: 9%

Human Resources Specialists
Median Wage: $62,049
Annual Openings: 8,652
10-Year Growth: 23%

General and Operations Managers
Median Wage: $96,046
Annual Openings: 44,419
10-Year Growth: 23%

Data Source: TexasWages,TexasWorkforceCommission. Retrieved 3/8/2024.

For more information visit: https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/bmf-business-management-extended.pdf

Business Management

Career Cluster: Arts, Audio Visual Technology, & Communications

Program: Commercial Photography

The Graphic Design and Interactive Media program of study focuses on occupational and educational opportunities associated with designing or creating graphics to meet specific commercial or promotional needs, such as packaging, displays, or logos. The program of study includes designing clothing and accessories and creating special effects, animation, or other visual images using film, video, computers, or other electronic tools and media for use in computer games, movies, music videos, and commercials

Secondary Courses for High School Credit

First Year	Digital Art/Animation Graphic Design
Second Year	Commercial Photography 1 Entrepreneurship*
Third Year	Commercial Photography 2
Fourth Year	Practicum in Comm Photo



Work-Based Learning and Expanded Learning Opportunities

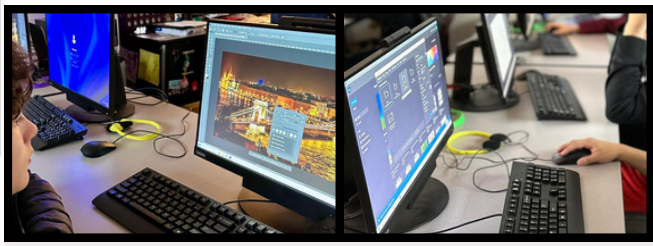
Work-Based Learning Activities	• Shadow an art director at a branding firm or design agency • Intern in the marketing and communications department of a technology company
Expanded Learning Opportunities	• Participate in SkillsUSA or TSA • Participate in Student Television Network • Join a related co-curricular or extracurricular club such as web development or computer coding

Aligned Industry-Based Certifications

- Adobe Digital Experience Certification Program

PROFESSIONAL

Successful completion of the Graphic Design and Interactive Media program of study will fulfill requirements of the Business and Industry endorsement.



Example Postsecondary Opportunities

Associate Degrees
- Graphic Design
- Digital Arts

Bachelor's Degrees
- Web Page, Digital/Multimedia and Information Resource Design
- Design and Visual Communications

Master's, Doctoral, and Professional Degrees
- Game and Interactive Media Design
- Animation, Interactive Technology, Video Graphics, and Special Effects

Additional Stackable IBCs/License
- Certified Textile Designer (CTD)

Example Aligned Occupations

Software Developers
Median Wage:$111,705
Annual Openings: 15,324
10-Year Growth: 36%

Graphic Designers
Median Wage:$50,973
Annual Openings: 1,766
10-Year Growth: 10%

Art Directors
Median Wage:$81,926
Annual Openings: 619
10-Year Growth: 18%

Data Source: TexasWages,TexasWorkforceCommission. Retrieved 3/8/2024

For more information visit:
https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources

Commercial Photography

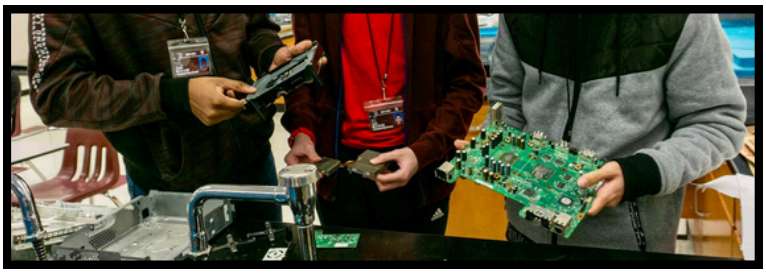
Career Cluster: Technology

Program: Computer Tech

The Information Technology Support and Services program of study focuses on occupational and educational opportunities associated with administering, testing, and implementing computer databases and applying knowledge of database management systems. This program of study includes analyzing user requirements, automating or improving existing systems, and reviewing computer system capabilities. It also includes research, design, and testing of computer or computer-related equipment for commercial, industrial, military, or scientific use.

Secondary Courses for High School Credit

First Year	Principles of IT Entrepreneurship*
Second Year	Computer Maintenance
Third Year	Computer Tech Practicum



Aligned Advanced Academic Courses

AP	AP Computer Science
Dual Credit	Business Principles

Students should be advised to consider these course opportunities to enrich their preparation. AP courses not listed under the Secondary Courses for High School Credit section of this framework document do not count towards concentrator/completer status for this program of study.

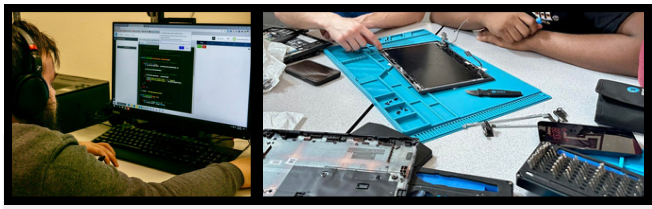
Work-Based Learning and Expanded Learning Opportunities

Work-Based LearningActivities	• Intern at a local IT company to develop skills in computer system maintenance and setting up computer equipment • Shadow a database administrator or computer software or hardware engineer to learn about their day-to-day responsibilities
ExpandedLearning Opportunities	• Participate in SkillsUSA or TSA • Subscribe to industry journals

Aligned Industry-Based Certifications

- TBD by District

Successful completion of the Information Technology Support and Services program of study will fulfill requirements of the Business and Industry endorsement.



Example Postsecondary Opportunities

Apprenticeships
- Coding Apprenticeship

Associate Degrees
- Computer Science
- Network and System Administration

Bachelor's Degrees
- Computer and Information Systems
- Security/Auditing/Information Assurance
- Computer Engineering

Master's, Doctoral, and Professional Degrees
- Information Science/Studies
- Electrical and Electronics Engineering

Example Aligned Occupations

Computer User Support Specialists
Median Wage: $51,411
Annual Openings: 5,757
10-Year Growth: 21%

Computer Network Support Specialists
Median Wage: $65,646
Annual Openings: 1,634
10-Year Growth: 19%

Computer Hardware Engineers
MedianWage:$119,662
Annual Openings: 377
10-Year Growth: 14%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024.

For more information visit:
https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/program-of-study-additional-resources

Computer Tech

Career Cluster: Architecture & Construction

Program: Construction Management

The Construction Management and Inspection program of study focuses on occupational and educational opportunities associated with producing cost estimates for construction projects to support bidding on or determining the price of products or services. The program of study includes inspecting structures using engineering skills to determine structural soundness and compliance with specifications, building codes, and other regulations.

Secondary Courses for High School Credit

First Year	Principles of Construction
Second Year	Construction Management
Third Year	Adv Construction Management





Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Shadow a construction manager to learn how to lead a team and develop a budget • Participate in a pre-apprenticeship to clean and prepare construction sites by digging trenches and setting up scaffolding
Expanded Learning Opportunities	• Shadow a building inspector or cost estimator • Participate in SkillsUSA

Aligned Industry-Based Certifications

- NCCER Core

NCCER
National Center for Construction Education and Research

Successful completion of the Construction Management and Inspection program of study will fulfill requirements of the Business and Industry endorsement.



Example Postsecondary Opportunities

Apprenticeships
- Building Inspector

Associate Degrees
- Construction Management
- Construction Engineering Technology
- Building/Property Maintenance
- Building/Construction Site Management

Bachelor's Degrees
- Construction Engineering Technology
- Construction Management
- Building/Property Maintenance

Master's, Doctoral, and Professional Degrees
- Construction Engineering Technology
- Construction Engineering
- Construction Management
- Project Management

Example Aligned Occupations

Construction and Building Inspectors
Median Wage: $62,251
Annual Openings: 1,585
10-Year Growth: 9%

First-Line Supervisors of Construction Trades and Extraction Workers
Median Wage: $64,473
Annual Openings: 9,513
10-Year Growth: 23%

Construction Managers
Median Wage: $95,072
Annual Openings: 6,325 10-Year Growth: 24%

Data Source: TexasWages,TexasWorkforceCommission. Retrieved 3/8/2024.

For more information visit:
https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources

Construction Management

Career Cluster: Hospitality & Tourism

Program: Culinary Arts

The Culinary Arts program of study focuses on occupational and educational opportunities associated with the planning, directing, or coordinating activities of a food and beverage organization or department. This program of study includes opportunities involved in directing and participating in the preparation of food.



Secondary Courses for High School Credit

First Year	Intro to Culinary Entrepreneurship*
Second Year	Culinary I
Third Year	Culinary 2 or Practicum of Culinary



Aligned Advanced Academic Courses

AP	AP Chemistry

Students should be advised to consider these course opportunities to enrich their preparation. AP courses not listed under the Secondary Courses for High School Credit section of this framework document do not count towards concentrator/completer status for this program of study.

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Shadow a director of a non-profit that produces and delivers food for communities in need • Intern at a catering company and learn about food production for large-scale events • Work part-time in a restaurant as a line cook or chef
Expanded Learning Opportuni ti e s	• Participate in FCCLA • Participate in SkillsUSA • Participate in American Culinary Association or the Texas Restaurant Association

Aligned Industry-Based Certifications

- ServSafe Manager
- ServSafe Food Handler

Successful completion of the Culinary Arts program of study will fulfill requirements of the Business and Industry endorsement.

Example Postsecondary Opportunities

Associate Degrees
- Culinary Arts
- Baking and Pastry Arts

Bachelor's Degrees
- Hotel/Motel Administration/Management
- Culinary Science

Master's, Doctoral, and Professional Degrees
- Organizational Leadership
- Foodservice Systems Administration/Management

Additional Stackable IBCs/License
- Food Manager License

Example Aligned Occupations

Bakers
Median Wage: $29,466
Annual Openings: 2,942
10-Year Growth: 26%

Chefs and Head Cooks
Median Wage: $44,761
Annual Openings:950
10-Year Growth: 37%

General and Operations Managers
Median Wage: $83,220
Annual Openings: 25,450
10-Year Growth: 23%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024.

For more information visit:
https://tea.texas.gov/academics/college-career-and-military-prep/ ca reer-a nd-technica l-educa tion/ prog ra ms -of-stu dy - additional-resources

Culinary Arts

Career Cluster: Information Technology

Program: Cybersecurity/Networking

The Cybersecurity program of study focuses on occupational and educational opportunities associated with planning, implementing, upgrading, or monitoring security measures for the protection of computer networks and information. This program of study includes responding to computer security breaches and viruses and administering network security measures

Secondary Courses for High School Credit

First Year	Principles of IT
Second Year	Computer Science
Third Year	AP Computer Science
Fourth Year	Fund. of Computer Sci/Networking Found. of Cyber/Cybersecurity



Aligned Advanced Academic Courses

AP	AP Computer Science
Dual Credit	Senior yr courses are through Collin College

Students should be advised to consider these course opportunities to enrich their preparation. AP courses not listed under the Secondary Courses for High School Credit section of this framework document do not counttowardsconcentrator/completerstatusfor this program of study.

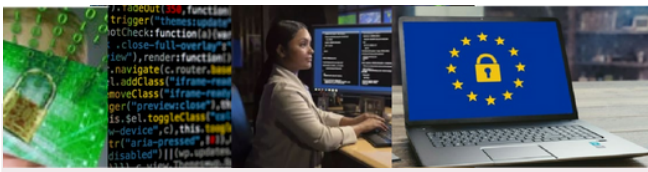
Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Intern at a local bank, hospital, or government office to develop skills in implementing security measures • Interview with an information security analyst to learn how they plan for, monitor, and upgrade security measures at their organization
Expanded Learning Opportunities	• Participate in a Hackathon • Participate in TSA or SkillsUSA

Aligned Industry-Based Certifications

- Collin College Level 1 - CISSP Information Systems Cybersecurity Professional

Successful completion of the Cybersecurity program of study will fulfill requirements of the STEM endorsement if the math and science requirements are met or the Business and Industry endorsement.



Examples Postsecondary Opportunities

Associate Degrees
- Computer and Information Systems Security
- Computer Programming

Bachelor's Degrees
- Computer Science
- Computer Software Engineering

Master's, Doctoral, and Professional Degrees
- Computer and Information Systems
- Security/Auditing/Information Assurance
- Computer Software Engineering

Additional Stackable IBCs/License
- Certified Ethical Hacker (CEH)

Example Aligned Occupations

Computer User Support Specialists
Median Wage: $51,411
Annual Openings: 5,757
10-Year Growth: 21%

Software Developers
Median Wage: $111,705
Annual Openings: 15,324
10-Year Growth: 36%

Information Security Analysts
Median Wage: $110,268
Annual Openings: 1,719
10-Year Growth: 49%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024.

For more information visit:
https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources

Cybersecurity/Networking

Career Cluster: Business and Industry

Program: Debate

The Debate Program of Study develops students' skills in communication, critical thinking, research, and persuasive speaking, all essential for success in business, law, public relations, and leadership roles. Through participation in classroom instruction, competitive debate, and public speaking activities, students learn to analyze complex issues, construct logical arguments, and present ideas effectively. Emphasizing professionalism, collaboration, and civic engagement, this program prepares students for postsecondary education and careers that demand confidence, clarity, and strategic communication.

Secondary Courses for High School Credit

- Debate 1-4



Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Job shadowing with attorneys, business leaders, or elected officials • Internships in law offices, marketing firms, or local government offices
Expanded Learning Opportunities	• Debate Team • Speech and Forensics Competitions (UIL, NSDA, or TFA) • Model United Nations or Youth in Government programs

Students can also participate in the competition Debate program



Successful completion of the Debate program of study will fulfill requirements of the Business & Industry endorsement.



Example Postsecondary Opportunities

Apprenticeships
- Legal Assistant
- Political Campaign aide

Associate Degrees
- Communication Studies
- Political Science
- Marketing, PR, or Business Admin

Bachelor's Degrees
- Communication Studies
- Journalism, PR, or Media Studies
- Legal Studies

Master's, Doctoral, and Professional Degrees
- Public Administration
- Juris Doctor

Additional Stackable IBCs/License
- Professional Communication Certification
- Microsoft Office Specialist

Example Aligned Occupations

Lawyer
Median Wage: $144,997
Annual Openings: 2000
10-Year Growth: 22%

Paralegal
Median Wage: $58,736
Annual Openings: 4000
10-Year Growth: 19%

Public Relations Specialist
Median Wage: $60,715
Annual Openings: 4000
10-Year Growth: 16%

Data Source: My Texas Future accessed: 11/11/2025

For more information visit:
https://www.mytexasfuture.org/career-explorer

Fine Arts - Art

Career Cluster: Business, Marketing, and Finance

Program: Entrepreneurship

The Entrepreneurship program of study focuses on occupational and educational opportunities associated with planning, launching, directing, and coordinating public or private sector ventures. This program of study includes formulating policies, launching businesses or organizations, managing daily operations, analyzing management structures, and planning for the use of materials and human resources.

Secondary Courses for High School Credit

First Year	Business Info Management
Second Year	Entrepreneurship*
Third Year	Entrepreneurship 2
Fourth Year	Practicum of Entrepreneurship





Aligned Advanced Academic Courses

Dual Credit	College Statistics, Business Principles

Students should be advised to consider these course opportunities to enrich their preparation. AP courses not listed under the Secondary Courses for High School Credit section of this framework document do not count towards concentrator/completer status for this program of study.

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Intern at a local start-up or a business incubator • Participate in the development and launch of a school based enterprise
Expanded Learning Opportunities	• Job shadow an entrepreneur • Participate in BPA, DECA, FBLA, or related UIL events

Aligned Industry-Based Certifications

- Stukent Social Media Marketing Certification

SuccessfulcompletionoftheEntrepreneurshipprogramof study will fulfill requirements of the Business and Industry endorsement.



Example Postsecondary Opportunities

Associate Degrees
- Operations Management and Supervision
- Organizational Leadership

Bachelor's Degrees
- Business Administration and Management
- Public Administration

Master's, Doctoral, and Professional Degrees
- Business Administration and Management
- Public Administration

Additional Stackable IBCs/License
- Salesforce
- Service Contract Providers

Example Aligned Occupations

General and Operations Managers
MedianWage:$83,220
Annual Openings: 25,450
10-Year Growth: 23%

Management Analysts
Median Wage: $93,983
Annual Openings: 6,030
10-Year Growth: 25%

Chief Executives
Median Wage: $163,567
Annual Openings: 648
10-Year Growth: 3%

Data Source: TexasWages,TexasWorkforceCommission.Retrieved3/8/2024.

For more information visit:
https ://tea .tex a s .gov/a c a demi c s /c ol l ege-c a r eer -a nd-mi l i ta r y-pr ep/c a r eer -a nd-tec hni c a l-education/programs-of-study-additional-resources

Entrepreneurship

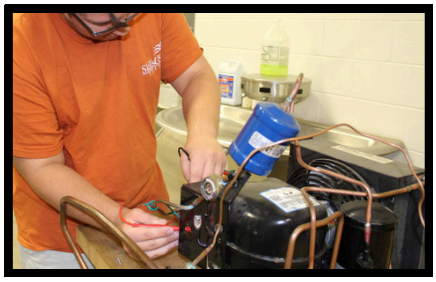
Career Cluster: Architecture & Construction

Program: Heating, Ventilation, & Air Conditioning - HVAC

The HVAC and Sheet Metal program of study focuses on occupational and educational opportunities associated with installing, servicing, or repairing heating and air conditioning systems. The program of study addresses fabrication, assembly, installation, and repair of sheet metal products and equipment, such as ducts, control boxes, drainpipes, and furnace casings.

Secondary Courses for High School Credit

First Year	Principles of Construction Entrepreneurship*
Second Year	Electrical Technician HVAC I
Third Year	HVAC II





Aligned Advanced Academic Courses

Dual Credit	HVAC workforce classes are through Collin College

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Participate in a pre-apprenticeship in HVAC and refrigeration • Intern with an HVAC company to practice installing and repairing heating and cooling systems
Expanded Learning Opportunities	• Job shadow an HVAC technician or cost estimator • Participate in SkillsUSA

Aligned Industry-Based Certifications

- Section 608 Technician Certification

Successful completion of the HVAC and Sheet Metal program of study will fulfill requirements of the Business and Industry endorsement.



Example Postsecondary Opportunities

Apprenticeships

- Heating and Air Conditioning Installer

Associate Degrees

- Heating, Air Conditioning, Ventilation and Refrigeration Maintenance Technology
- Construction Site Management
- Property Maintenance
- Sheet Metal Technology/Sheetworking

Bachelor's Degrees

- Construction Engineering
- Construction Management
- Building/Construction Site Management
- Heating, Air Conditioning, Ventilation and Refrigeration Maintenance Technology

Master's, Doctoral, and Professional Degrees

- Construction Engineering
- Construction Management

Example Aligned Occupations

Helpers—Installation, Maintenance, and Repair Workers
Median Wage: $33,348
Annual Openings: 2,366
10-Year Growth: 22%

Heating, Air Conditioning, and Refrigeration Mechanics and Installers
Median Wage: $48,722
Annual Openings: 3,719
10-Year Growth: 21%

C onstruction Managers
Median Wage: $95,072
Annual Openings: 6,325
10-Year Growth: 24%

Data Source: TexasWages,TexasWorkforceCommission.Retrieved3/8/20240

For more information visit: https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources

HVAC

Career Cluster: Hospitality & Tourism

Program: Hospitality Services

The Travel, Tourism, and Attractions program of study focuses on occupational and educational opportunities associated with the marketing and sales of travel and tourism services. This program of study includes planning, directing, and coordinating marketing or business policies and programs. Students will identify potential customers and determine demand and promotional strategies for products and services.

Secondary Courses for High School Credit

First Year	Intro to Culinary Entrepreneurship*
Second Year	Travel & Tourism Management
Third Year	Practicum in Hospitality Services





Example Postsecondary Opportunities

Associate Degrees
- Tourism and Travel Services Management
- E-Commerce/Electronic Commerce

Bachelor's Degrees
- Marketing/Marketing Management
- Business/Managerial Economics

Master's, Doctoral, and Professional Degrees
- Marketing/Marketing Management
- Tourism and Travel Services Management

Additional Stackable IBCs/License
- Tourism Management

Example Aligned Occupations

Reservation and TransportationTicket AgentsandTravel Clerks
Median Wage: $48,000
Annual Openings: 2,031
10-Year Growth: 17%

Travel Agents
Median Wage: $39,991
Annual Openings: 473
10-Year Growth: 22%

Market Research Analysts and Marketing Specialists
Median Wage: $60,926
Annual Openings: 5,688
10-Year Growth: 35%

Work-Based Learning and Expanded Learning Opportunities

Work Based Learning Activities	• Intern at a local tourism and visitors bureau to learn about managing and marketing attractions and resources • Work part-time as a tour guide at a local attraction
Expanded Learning Opportunities	• Volunteer at a local community event (fair or rodeo) • Tour an attraction, theme park, or event center • Participate in FCCLA

Aligned Industry-BasedCertifications

- TBD by District

Successful completion of the Travel, Tourism and Attractions program of study will fulfill requirements of the Business and Industry endorsement.

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024.

For more information visit:
https://tea.texas.gov/academics/college-career-and-military-prep/ ca reer-a nd-technica l-educa tion/ prog ra ms -of-stu dy - additional-resources

Hospitality Services

Career Cluster: Welding

Program: Welding

The Welding Program of Study focuses on the development and use of automatic and computer-controlled machines, tools, and robots that perform work on metal or plastic. CTE learners will learn how to modify parts to make or repair machine tools or maintain individual machines and how to use hand-welding or flame-cutting equipment.

Secondary Courses for High School Credit

First Year	Intro to Welding
Second Year	Welding 1 Entrepreneurship*
Third Year	Welding 2





Example Postsecondary Opportunities

Apprenticeship
- Welding

Associate Degrees
- Welding Technology
- Building/Construction Site Management
- Operations Management and Supervision

Bachelor's Degrees
- Welding Technology
- Construction Management
- Project Management
- Building/Construction Site Management

Master's, Doctoral, and Professional Degrees
- Engineering
- Engineering/Industrial Management
- Manufacturing Engineering
- Construction Engineering

Example Aligned Occupations

Welders, Cutters, Solderers, Industrial Production

Median Wage: $48,177
Annual Openings:6,792
10-Year Growth: 23%

First-Line Supervisors of Production and Operating Workers

Median Wage: $62,584
Annual Openings: 5,926
10-Year Growth: 17%

Industrial Production Managers

Median Wage: $119,691
Annual Openings: 1,296
10-Year Growth: 19%

Data Source: TexasWages,TexasWorkforceCommission.Retrieved3/8/2024.

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Job shadow a welder Intern for a local welding company
Expanded Learning Opportunities	• Tour a welding shop • Participate in SkillsUSA or TSA • Participate in a welding project that benefits the community

Aligned Industry-Based Certifications

- American Welding Society Certs

American Welding Society

Successful completion of the Welding program of study will fulfill requirements of the Business and Industry endorsement.

For more information visit:
https://tea.texas.gov/academics/college-career-and-military-prep/ ca reer-a nd-technica l-educa tion/ prog ra ms -of-stu dy -a dditi ona l-resources

Welding

Career Cluster: Health Science

Program: CNA - Nursing

The Nursing Science program of study focuses on occupational and educational opportunities associated with patient care. This program of study includes the practice of caring for patients, performing routine procedures such as monitoring vital signs, developing, and implementing care plans, maintaining medical records, and managing disease or pain.

Secondary Courses for High School Credit

First Year	Principles of Health Science
Second Year	Health Science Theory Medical Terminology
Third Year	Practicum of Nursing (Collin College) Anatomy and Physiology





Aligned Advanced Academic Courses

AP	AP Biology 2, AP Chemistry
Dual Credit	Senior yr courses are through Collin College

Students should be advised to consider these course opportunities to enrich their preparation. AP courses not listed under the Secondary Courses for High School Credit section of this framework document do not count towards concentrator/completer status for this program of study.

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Intern with a medical assistant at a community clinic, hospital, or assisted living facility • Conduct informational interviews with nurses in different departments and healthcare settings
Expanded Learning Opportunities	• Volunteer at community clinics, hospitals, assisted living and long-term care facilities • Participate in HOSA or SkillsUSA

Aligned Industry-Based Certifications

- Basic Life Support Provider
- Certified Nurse Assistant (CNA)

Successful completion of the Nursing Science program of study will fulfill requirements of STEM endorsement if the math and science requirements are met or the Public Services endorsement.



Example Postsecondary Opportunities

Apprenticeships
- Registered Nurse Resident

Associate Degrees
- Medical Assisting
- Vocational Nursing

Bachelor's Degrees
- Registered Nursing
- Nursing Administration

Master's, Doctoral, and Professional Degrees
- Nursing Administration
- Nursing Science

Additional Stackable IBCs/License
- Certified Emergency Nurse

Example Aligned Occupations

Nursing Assistants
Median Wage: $30,856
Annual Openings: 10,936
10-Year Growth: 15%

Licensed Practical and Licensed Vocational Nurses
Median Wage: $50,913
Annual Openings: 6,865
10-Year Growth: 17%

Registered Nurses
Median Wage: $79,831
Annual Openings: 16,207
10-Year Growth: 17%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024.

For more information visit:
https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources

Nursing

Career Cluster: Human Services

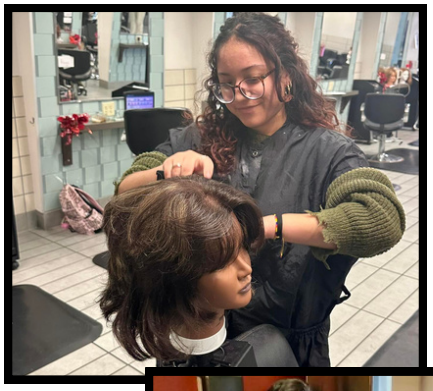
Program: Cosmetology

The Travel, Tourism, and Attractions program of study focuses on occupational and educational opportunities associated with the marketing and sales of travel and tourism services. This program of study includes planning, directing, and coordinating marketing or business policies and programs. Students will identify potential customers and determine demand and promotional strategies for products and services.

Secondary Courses for High School Credit

First Year	Intro to Cosmetology Entrepreneurship*
Second Year	Cosmetology I (2 credits)
Third Year	Cosmetology II (3 credits)









Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Work part-time in a salon, spa, or barbershop • Participate in an apprenticeship at a salon to become an apprentice stylist
Expanded Learning Opportunities	• Tour a salon, spa, or barbershop • Participate in SkillsUSA

Aligned Industry-BasedCertifications

- Cosmetology Operator License

Successful completion of the Cosmetology and Personal Care Services regional program of study will fulfill requirements of the Business and Industry endorsement.

Example Postsecondary Opportunities

Apprenticeships
- Apprentice Stylist

Associate Degrees
- Cosmetology Operator
- Esthetics and Skin Care

Additional Stackable IBCs/License
- Class A Barber
- Eyelash Extension Specialist
- Hair Weaving Specialist

Example Aligned Occupations

Hairdressers, Hairstylists, andCosmetologists
Median Wage: $27,286
Annual Openings: 8,014
10-Year Growth: 25%

Skincare Specialists
Median Wage: $35,112
Annual Openings: 778
10-Year Growth: 38%

First-Line Supervisors of Personal ServiceWorkers
Median Wage: $36,795
Annual Openings: 2,253
10-Year Growth: 29%

Data Source: TexasWages,TexasWorkforceCommission. Retrieved 3/8/2024.

For more information visit:
h ttp s :// tea.texa s.g ov/a ca demi cs / col l eg e -ca reer-a nd-military-prep/career-and-technical-education/programs-of-s tu d y-a ddi ti o nal - resources

Cosmetology

Career Cluster: Health Science

Program: Emergency Medical Tech - EMT

The Diagnostic and Therapeutic Services program of study focuses on occupational and educational opportunities associated with diagnosing and treating acute, episodic, or chronic illness independently or as part of a healthcare team. This program of study includes exploration of patient treatment and rehabilitative programs that help build or restore daily living skills to persons with disabilities or developmental delays

Secondary Courses for High School Credit

First Year	Principles of Health Science
Second Year	Health Science Theory Medical Terminology
Third Year	EMT Basics (Collin College) *Must be 18 by April of graduating year*



Aligned Advanced Academic Courses

AP	AP Biology 2, AP Chemistry
Dual Credit	Senior yr courses are through Collin College

Students should be advised to consider these course opportunities to enrich their preparation. AP courses not listed under the Secondary Courses for High School Credit section of this framework document do not counttowardsconcentrator/completerstatusfor this program of study.

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Intern with a medical assistant at a community clinic, hospital, assisted living, or long-term care facility • Participate in job shadowing experiences such as Emergency Medical Services (EMS) ride along or hospital/clinical job
Expanded Learning Opportunities	• Participate in Health Occupation Students of America (HOSA) or SkillsUSA • Participate in Advanced Medical Ambulance Bus (AMBUS) event or Community Emergency Response Team (CERT) event

Aligned Industry-Based Certifications

- Emergency Medical Technician–Basic

Successful completion of the Diagnostic and Therapeutic Services program of study will fulfill requirements of the Public Services endorsement.



Example Postsecondary Opportunities

Apprenticeships
- Medical Assistant

Associate Degrees
- Emergency Medical Technology
- Radiologic Technology/Science

Bachelor's Degrees
- Emergency Medical Technology
- Medical Insurance Coding

Master's, Doctoral, and Professional Degrees
- Medicine
- Occupational Therapy

Additional Stackable IBCs/License
- Registered Diagnostic Medical Sonographer

Example Aligned Occupations

Medical Assistants
Median Wage: $36,834
Annual Openings: 11,638
10-Year Growth: 29%

Dental Hygienists
Median Wage: $79,663
Annual Openings: 1,352
10-Year Growth: 32%

Physician Assistants
Median Wage: $127,332
Annual Openings: 974
10-Year Growth: 41%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024.

For more information visit:
https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources

Emergency Medical Tech - EMT

Career Cluster: Human Services

Program: Family & Community Service

The Family and Community Services program of study focuses on occupational and educational opportunities associated with social services, including child and human development and consumer sciences. This program of study includes managing social and community services, managing family and consumer sciences, and understanding career paths in social work or therapy for children, families, or school communities.

Secondary Courses for High School Credit

First Year	Child Development Entrepreneurship*
Second Year	Human Growth & Development
Third Year	Practicum in Human Services





Example Postsecondary Opportunities

Apprenticeships
- Community Health Worker Apprentice

Associate Degrees
- Social Work
- Human Development and Family Studies

Bachelor's Degrees
- Social Work
- Human Development and Family Studies

Master's, Doctoral, and Professional Degrees
- Mental Health Counseling
- Marriage and Family Therapy

Additional Stackable IBCs/License
- Certified Diabetes Educator

Example Aligned Occupations

Community Health Workers
Median Wage: $39,520
Annual Openings: 501
10-Year Growth: 25%

Social and Human Services Assistants
Median Wage: $38,442
Annual Openings: 3,298
10-Year Growth: 21%

Child, Family, and School Social Workers
Median Wage: $49,398
Annual Openings: 2,342
10-Year Growth: 14%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024.

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Participate in a community health worker apprenticeship at a community health center • Shadow a social worker in a community non-profit organization to learn about providing social and community services
Expanded Learning Opportunities	• Participate in FCCLA

Aligned Industry-Based Certifications

- Community Health Worker

Successful completion of the Family and Community Services program of study will fulfill requirements of the Public Service endorsement.

For more information visit:
https://tea.texas.gov/academics/college-career-and-military-pre p/ ca re e r-a nd-te chnica l-e duca tion/ prog ra m s -of-s tu dy - additional-resources

Family and Community Services

Career Cluster: Law and Public Service

Program: Fire Science

The Fire Science program of study focuses on occupational and educational opportunities associated with fire prevention, protection, and firefighting. This program of study includes firefighter safety, building codes, and the necessary physical skills to performrescues. Students will learn about preparedness, basic fire suppression techniques, basic arson investigation, hazardous material management, and educating the public about fire safety.

Secondary Courses for High School Credit

First Year	Principles of Law, ect.
Second Year	Firefighter I
Third Year	Firefighter II Anatomy & Physiology





Example Postsecondary Opportunities

Apprenticeships

- Fire Apprentice

Associate Degrees

- Emergency Medical Technology
- Fire Protection Technology

Bachelor's Degrees

- Fire Science
- Emergency Health Services

Additional Stackable IBCs/License

- Hazardous Materials Awareness
- FirePlanExaminer

Example Aligned Occupations

Emergency Medical Technicians
Median Wage: $34,169
Annual Openings: 1,590
10-YearGrowth:19%

Firefighters
Median Wage: $52,353
Annual Openings: 2,294
10-Year Growth: 14%

Fire Inspectors and Investigators
Median Wage: $67,014
Annual Openings: 203
10-Year Growth: 14%

Data Source: TexasWages,TexasWorkforceCommission. Retrieved 3/8/2024.

For more information visit:
https://tea.texas.gov/academics/college-career-and-military-prep/ ca reer-a nd-technica l-educa tion/ prog ra ms -of-stu dy - additional-resources

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Shadow a fire chief to learn about fire department operations and skills needed to be a firefighter • Intern with a fire inspection company to learn about building safety, fire prevention, and fire protection
Expanded Learning Opportunities	• Tour a local fire department • Participate in SkillsUSA or TSA

Aligned Industry-BasedCertifications

- Emergency Medical Technician – Basic

Successful completion of the Fire Science program of study will fulfill requirements of the Public Servicesendorsement.

Fire Science

Career Cluster: Law and Public Service

Program: Law Enforcement

The Law Enforcement program of study focuses on occupational and educational opportunities associated with the development and enforcement of laws by various branches of law enforcement. This program of study includes the history, organization, and functions of local, state, and federal law enforcement. Students will understand the role of constitutional law at local, state, and federal levels; the U.S. legal system; criminal law; and law enforcement terminology and the classification and elements of crime.

Secondary Courses for High School Credit

First Year	Principles of Law, ect.
Second Year	Law Enforcement I
Third Year	Law Enforcement II Forensic Science







Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Shadow a detective to learn about investigations and the role of detectives in law enforcement • Intern in dispatch at a local law enforcement agency to learn about first responder roles and processes
Expanded Learning Opportunities	• Visit a police department • Participate in TSA or SkillsUSA

Aligned Industry-BasedCertifications

- IAED Emergency Telecommunicator

Example Postsecondary Opportunities

Apprenticeship
- Security Specialist

Associate Degrees
- Criminal Justice
- Law Enforcement

Bachelor's Degrees
- Forensic Science
- Criminal Justice

Master's, Doctoral, and Professional Degrees
- Criminal Justice
- Criminology and Criminal Justice

Additional Stackable IBCs/Licensures
- Jailer – Basic County Corrections
- Basic Telecommunicator

Example Aligned Occupations

Police and Sheriff's Patrol Officers
Median Wage: $64,373
Annual Openings: 5,424
10-Year Growth: 13%

Detectives and Criminal Investigators
MedianWage:$82,090
Annual Openings: 1,536
10-Year Growth: 8%

First-Line Supervisors of Police and Detectives
MedianWage:$97,571
Annual Openings: 5,461
10-Year Growth: 12%

Data Source: TexasWages,TexasWorkforceCommission. Retrieved 3/8/2024.

For more information visit:
~~https://tea.texas.gov/academics/college-career-and-military-prep/ ca reer-a nd-technica l-educa tion/ prog ra ms- of-~~stu dy - ~~additional-resources~~

Successful completion of the Law and Public Service program of study will fulfill requirements of the Public Services endorsement.

Law Enforcement

Career Cluster: Law and Public Service

Program: Criminal Justice

The Legal Studies program of study focuses on topics such as legal research, legal writing, rules of procedure, case management, law office technology, and legal ethics. Areas of the legal system studied include aspects of family law, criminal law, and contract law.

Secondary Courses for High School Credit

First Year	Intro to Criminal Justice Court Systems and Practices
Second Year	Fund. of Criminal Law Correctional Systems
Third Year	Crime in America Police Systems/Practices Criminal Investigation Legal Aspects of Law Enforcement



Aligned Advanced Academic Courses

Dual Credit	All courses are through Collin College (online)

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Shadow a clerk in a courthouse to learn about civil litigation • Intern at a law firm, working alongside a paralegal to produce and organize legal documents • Work part-time as an administrative assistant at a local non-profit that provides legal aid
Expanded Learning Opportunities	• Participate in Mock Trail

Aligned Industry-Based Certifications

- NALA Certified Paralegal



Example Postsecondary Opportunities

Apprenticeships
- Law Apprenticeship

Associate Degrees
- Paralegal Studies
- Court Reporting and Captioning

Bachelor's Degrees
- Legal Research
- Legal Studies

Master's, Doctoral, and Professional Degrees
- Juris Doctorate
- International and Comparative Law

Additional Stackable IBCs/Licensures
- Paralegal

Example Aligned Occupations

Court Reporters
Median Wage: $51,177
Annual Openings: 174
10-YearGrowth:11%

Paralegals and Legal Assistants
Median Wage: $56,310
Annual Openings: 4,046
10-Year Growth: 23%

Lawyers
Median Wage: $134,158
Annual Openings: 3,915
10-Year Growth: 19%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024.

For more information visit:
https://tea.texas.gov/academics/college-career-and-military-prep/ ca reer-a nd-technica l-educa tion/ prog ra ms -of-stu dy - additional-resources

Successful completion of the Legal Studies program of study will fulfill requirements of the Public Services endorsement.

Texas Education Agency

Legal Studies

Career Cluster: Law and Public Service

Program: Medical Scribe

The Health Informatics program of study focuses on occupational and educational opportunities associated with the management and use of patient information in the healthcare field. This program of study includes exploration of computerized healthcare systems and the process of creating and maintaining hospital and patient records in accordance with regulatory requirements of the healthcare system. Students will also practice writing and interpreting medical reports.

Secondary Courses for High School Credit

First Year	Principles of Health Science
Second Year	Health Science Theory Medical Terminology
Third Year	A&P for Med Assistant Medical Law and Ethics Admin Procedures Anatomy & Physiology





Example Postsecondary Opportunities

Apprenticeships
- Medical Coder

Associate Degrees
- Health Information/Medical Records Technology
- Medical Assisting

Bachelor's Degrees
- Nursing Administration
- Medical Insurance Coding

Master's, Doctoral, and Professional Degrees
- Nursing Administration
- Hospital and Health Care Facilities Administration

Additional Stackable IBCs/License
- Consumer Health Information Specialization – Level I

Example Aligned Occupations

Medical Secretaries and Administrative Assistants
Median Wage: $38,431
Annual Openings: 7,300
10-Year Growth: 21%

Medical Records Specialists
Median Wage: $44,176
Annual Openings: 1,812
10-Year Growth: 18%

Medical and Health Services Managers
Median Wage: $105,461
Annual Openings: 6,080
10-Year Growth: 43%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024.

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Intern with a medical records specialist or health services manager • Job shadow a medical services manager to understand how services and facilities are managed
Expanded Learning Opportunities	• Participate in HOSA, DECA, SkillsUSA, or BPA

Aligned Industry-Based Certifications

- TBD by District

Successful completion of the Health Informatics program of study will fulfill requirements of the Public Services endorsement.

For more information visit:
https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/hs-health-informatics-extended.pdf

Medical Scribe

Career Cluster: Health Science

Program: Rehab Aide

The Exercise Science, Wellness, and Restoration program of study focuses on occupational and educational opportunities associated with assisting patients with maintaining physical, mental, and emotional health. This program of study includes researching diet and exercise needed to maintain a healthy, balanced lifestyle and exploring techniques to help patients recover from injury, illness, or disease.

Secondary Courses for High School Credit

First Year	Principles of Health Science Entrepreneurship*
Second Year	Health Science Theory
Third Year	Rehab Aide I & II (Collin College) Principles of Applied Healthcare Anatomy & Physiology





Aligned Advanced Academic Courses

AP	AP Biology 2, AP Chemistry
Dual Credit	Senior yr courses are through Collin College

Students should be advised to consider these course opportunities to enrich their preparation. AP or IB courses not listed under the Secondary Courses for High School Credit section of this framework document do not count towards concentrator/completer status for this program of study.

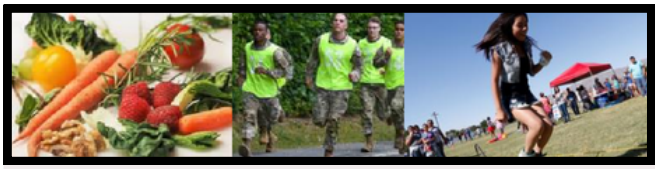
Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Participate in an internship with a physical therapist, occupational therapist, or speech therapist • Shadow an athletic trainer from a local sports team
ExpandedLearning Opportunities	• Participate in the Texas State Athletic Trainers Association • Participate in HOSA or SkillsUSA • Volunteer at a hospital or rehabilitation center

Aligned Industry-Based Certifications

- Physical Therapist Assistant - Collin College

Successful completion of the Exercise Science, Wellness, and Restoration program of study will fulfill requirements of the Public Services endorsement.



Example Postsecondary Opportunities

Appre nti ce shi ps
- Medical Assistant

Associate Degrees
- Associate of Applied Science

Bachelor's Degrees
- Nutrition Sciences
- Exercise Physiology and Kinesiology

Master's, Doctoral, and Professional Degrees
- Exercise Science and Kinesiology
- PhysicalTherapy

Additional Stackable IBCs/License
- PhysicalTherapyTechnician/Aide Certification

Example Aligned Occupations

Exercise Trainers and Group Fitness Instructors
Median Wage: $44,916
Annual Openings: 5,022
10-Year Growth: 41%

Physical TherapistAssistants
Median Wage: $74,866
Annual Openings: 1,218
10-Year Growth: 44%

Athletic Trainers
Median Wage: $54,447
Annual Openings: 295
10-Year Growth: 13%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024.

For more information visit:
https://tea.texas.gov/academics/college-career-and-military-pre p/ ca re e r-a nd-te chnica l-e duca tion/ prog ra m s -of-s tu dy - additional-resources

Rehab Aide

Career Cluster: Education and Training

Program: Teaching & Training

The Teaching and Training program prepares students for careers in education by exploring child development, human growth, and learning principles. Through coursework and practicum experiences, students gain hands-on skills in classroom support, instructional strategies, and educational leadership.

Secondary Courses for High School Credit

First Year	Child Development
Second Year	Principles of Ed & Training Human Growth & Development
Third Year	Practicum in Education





Example Postsecondary Opportunities

Apprenticeships
- Teacher Apprentice

Associate Degrees
- Adult and Continuing Education and Teaching
- Educational/Instructional Technology

Bachelor's Degrees
- Elementary Education and Teaching
- Secondary Education and Teaching

Master's, Doctoral, and Professional Degrees
- Educational Leadership and Administration, General
- Curriculum and Instruction

Additional Stackable IBCs/License
- Generalist, Grades EC-4

Example Aligned Occupations

Teaching Assistants, Except Postsecondary
Median Wage: $28,066
Annual Openings: 10,000
10-Year Growth: 15%

Secondary School Teachers, Except Special Education and CTE
Median Wage: $61,035
Annual Openings: 8,288
10-Year Growth: 14%

Education Administrators, Kindergarten through Secondary
Median Wage: $81,976
Annual Openings: 2,676
10-Year Growth: 14%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024.

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Serve as a camp counselor to learn mentoring, facilitation, and lesson planning skills • Volunteer in a tutoring center to learn lesson planning and skills assessment
Expanded Learning Opportunities	• Participate in FCCLA • Participate in TAFE

Aligned Industry-Based Certifications

- Educational Aide I

Successful completion of the Teaching and Training program of study will fulfill requirements of the Public Service endorsement.

For more information visit: https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources

Teaching and Training

Career Cluster: Law and Public Service

Program: JROTC

The JROTC program of study emphasizes leadership development, civic responsibility, and personal growth through a structured military framework. Students explore the history, organization, and purpose of military service at local, state, and federal levels, while gaining a foundational understanding of the U.S. Constitution and the role it plays in shaping civic life. The courses fosters discipline, teamwork, and decision-making, encouraging students to become engaged citizens and future leaders in their communities.

Secondary Courses for High School Credit

- JROTC 1-4
- Must take ASVAB (Jr/Sr year)



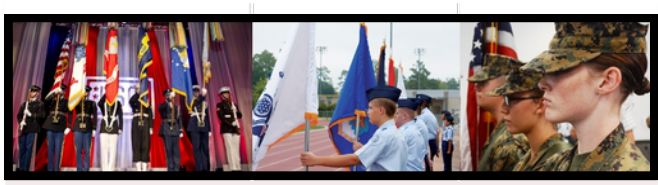
Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Leadership internships • Drill and Ceremony
Expanded Learning Opportunities	• Leadership academies and camps • School events and competition • Service-learning projects • Job shadowing with military personnel • Mentorship and peer leadership programs

May also participate in the JROTC Competition



Successful completion of the Junior Reserves Officers' Training Corps program of study will fulfill requirements of the Public Services endorsement.



Example Postsecondary Opportunities

United States Armed Forces Enlistment

- U.S. AirForce
- U.S. Army
- U.S. Coast Guard
- U.S. Navy
- U.S. Space Force
- U.S. Marine Corp

Military Academies

- U.S. Military Academy – West Point
- U.S. Naval Academy – Annapolis
- U.S. Air Force Academy – Colorado Springs
- U.S. Coast Guard Academy – New London
- U.S. Merchant Marine Academy – Kings Point

University – ROTC Programs

- Basic Course – Freshman / Sophomore
- Advanced Course – Junior/ Senior

Example Aligned Occupations

Military Police Investigator

Median Wage: $55,598
Annual Openings: 325
10-Year Growth: 5%

Aviator

Median Wage: $233,909
Annual Openings: 1,268
10-Year Growth: 6%

Military Construction Mechanic

Median Wage: $47,385
Annual Openings: 4,301
10-Year Growth: 6%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024.

For more information visit:
https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources

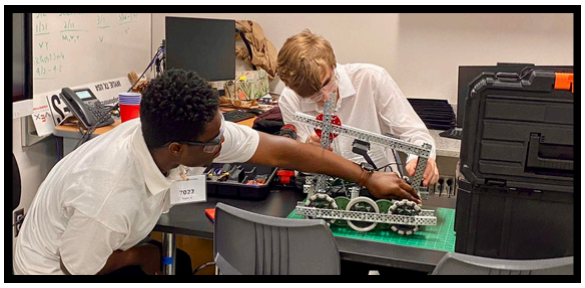
Junior Reserve Officers' Training Corps

Career Cluster: Manufacturing
Program: Engineering Foundations

The Engineering program equips students with foundational knowledge in applied engineering, design, and electrical technology while fostering problem-solving and innovation.

Secondary Courses for High School Credit

First Year	Principles of Applied Engineering
Second Year	Engineering Design & Presentation
Third Year	Robotics 1
Fourth Year	Scientific Research and Design



Aligned Advanced Academic Courses

AP	AP Calculus AB	AP Physics	AP Computer Science A
Dual Credit	Collin College Electrical Engineering Technology Program		

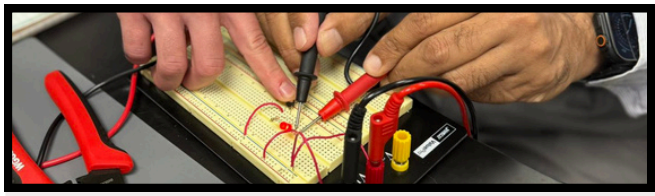
Students should be advised to consider these course opportunities to enrich their preparation. AP or Dual Credit courses not listed under the Secondary Courses for High School Credit section of this framework document do not count towards concentrator/completer status for this program of study.

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Intern at an engineering, robotics, or aerospace company. • Visit an engineering firm and shadow multiple types of engineers.
Expanded Learning Opportunities	• Participate in SkillsUSA • Join a local engineering association and attend meetings.

Aligned Industry-Based Certifications

- TBD by District



Example Postsecondary Opportunities

Apprenticeships
- Industrial Engineering Technician Apprenticeship

Associate Degrees
- Manufacturing Engineering Technology/ Technician
- Robotics Technology/Technician

Bachelor's Degrees
- Electrical and Electronics Engineering
- Engineering, General

Master's, Doctoral, and Professional Degrees
- Electrical and Electronics Engineering
- Engineering, General

Additional Stackable IBCs/Licensures
- Professional Engineer (PE License)
- Engineer in Training Certification (EIT)

Example Aligned Occupations

Civil Engineering Technologists and Technicians
Median Wage: $61,138
Annual Openings: 765
10-Year Growth: 11%

Aerospace Engineers
Median Wage: $115,694
Annual Openings: 483
10-Year Growth: 18%

Mechanical Engineers
Median Wage: $99,937
Annual Openings: 1,755
10-Year Growth: 19%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024.

For more information visit: https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources

Successful completion of the Engineering Foundationsprogram of study will fulfill requirements of the STEM endorsement if the math and science requirements are met or the Business and Industry endorsement.

Texas Education Agency

Engineering Foundations

Career Cluster: Manufacturing

Program: Electronic Engineering Technician

The Electronics Technology program of study focuses on occupational and education opportunities associated with the development of engineered products, voltage installation and testing, electrical schematics, semiconductors, millwrights, avionics, and electrical repairers. It includes exploration of a variety of electrical uses throughout residential and commercial applications such as chip making troubleshooting electrical lines from audio video production to commercial buildings. This program of study addresses how to troubleshoot, create, repair, and read electrical blueprints, technical drafting, and the applied mathematics of electricity throughout industry.

Secondary Courses for High School Credit

First Year	Principles of Applied Engineering
Second Year	Engineering Design & Presentation
Third Year	Scientific Research & Design
Fourth Year	Fund. of Electronics/Tech Alg & Trig Digital Found/ AC/DC Circuits



Aligned Advanced Academic Courses

Dual Credit	Sr yr classes taken through Collin College

Work-Based Learning and Expanded Learning Opportunities

Work Based Learning Activities	• Intern at a chip manufacturing company • Intern at a millwright company Job • shadow an electrician
Expanded Learning Opportunities	• Tour a chip manufacturer • Tour a local electrical company • Participate in SkillsUSA

Aligned Industry-Based Certifications

- Fusion 360

AUTODESK CERTIFIED USER

Successful completion of the Electronics Technology program of study will fulfill requirements of the Business and Industry endorsement.



Example Postsecondary Opportunities

Associate Degrees

- Electromechanical Technology
- Electronic Controls Technology
- Electronics Technician Specialization

Bachelor's Degrees

- Electrical Engineering
- Engineering Technology

Master's, Doctoral, and Professional Degrees

- Electrical Engineering
- Master of Science in Engineering with a major in semiconductor science and engineering

Additional Stackable IBCs/Licenses

- Semiconductor Technician Advanced Rapid Start
- Semiconductor Manufacturing Operator

Example Aligned Occupations

Electrical and Electronics Repairers
Median Wage: $61,099
Annual Openings: 624
10-Year Growth: 18%

Electrical and Electronic Engineering Technologist and Technicians
Median Wage: $62,968
Annual Openings: 1,156
10-YearGrowth:14%

Semiconductor Processing Technicians
MedianWage:$36,902
Annual Openings: 662
10-Year Growth: 10%

Data Source: TexasWages,TexasWorkforceCommission. Retrieved 3/8/2024.

For more information visit:
https://tea.texas.gov/academics/college-career-and-military-prep/ ca reer-a nd-technica l-educa tion/ prog ra ms -of-stu dy - additional-resources

Electronics Engineering

Career Cluster: STEM

Program: Math

The STEM Mathematics Program of Study provides a rigorous foundation in mathematical reasoning, problem-solving, and analytical thinking for students interested in science, technology, engineering, and mathematics fields. Through an integrated sequence of courses, ranging from algebra and geometry to calculus and statistics, students apply mathematical concepts to real-world problems and technological applications. Emphasizing inquiry, collaboration, and the use of digital tools, the program prepares learners for advanced study and careers in mathematics, engineering, computer science, data analytics, and other STEM disciplines.

Secondary Courses for High School Credit

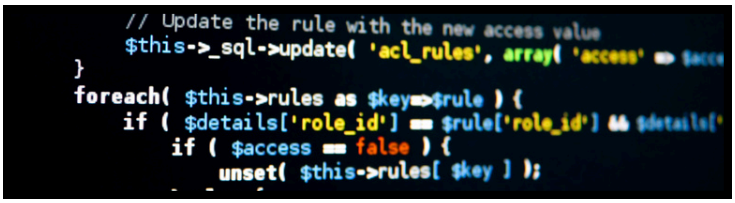
- Geometry
- Algebra 1 and 2
- Precalculus
- Statistics
- AP or Dual Credit Math's



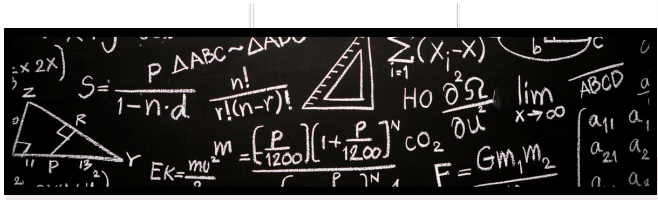
AP	AP Calculus AB
Dual Credit	Dual Credit Math options offered through Collin

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Job Shadowing: Students observe professionals such as engineers, data analysts, or actuaries to learn how mathematics is used in their daily work.
Expanded Learning Opportunities	• Math and Science Clubs • UIL Competitions • Robotics and Coding Teams • Research fairs or STEM Showcases



Successful completion of the Math program of study will fulfill requirements of the STEM endorsement.



Example Postsecondary Opportunities

Apprenticeships
- Engineering Tech apprentice
- CAD Tech apprentice

Associate Degrees
- Math
- Computer Science
- Data Science

Bachelor's Degrees
- Mathematics or Applied Mathematics
- Engineering (Mechanical, civil, electrical, or computer)
- Statistics or Data Science

Master's, Doctoral, and Professional Degrees
- Engineering
- PhD in Quantitative Research

Additional Stackable IBCs/License
- Python Programing cert
- CompTIA Data+ or CompTIA IT Fundamentals

Example Aligned Occupations

Statisticians

Median Wage: $95,597
Annual Openings: 451
10-Year Growth: 46%

Data Scientists

Median Wage: $100,098
Annual Openings: 7000
10-Year Growth: 52%

Economists

Median Wage: $116,870
Annual Openings: 80
10-Year Growth: 17%

Data Source: My Texas Future accessed: 11/11/2025

For more information visit:
https://www.mytexasfuture.org/career-explorer

Social Studies

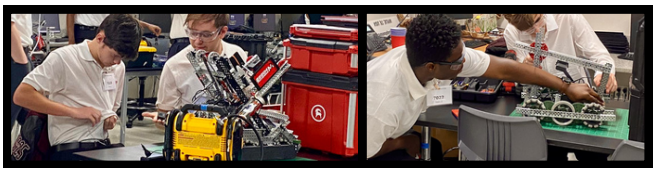
Career Cluster: Manufacturing

Program: Robotics

The Robotics and Automation Technology program of study focuses on occupational and educational opportunities associated with the assembly, operation, maintenance, and repair of electromechanical equipment or devices. This program of study includes exploration of a variety of mechanical fields, including robotics, refinery and pipeline systems, deep ocean exploration, and hazardous waste removal.

Secondary Courses for High School Credit

First Year	Principles of Applied Engineering
Second Year	Engineering Design & Presentation
Third Year	Robotics 1
Fourth Year	Robotics 2



Aligned Advanced Academic Courses

AP	AP Computer Science

Students should be advised to consider these course opportunities to enrich their preparation. AP courses not listed under the Secondary Courses for High School Credit section of this framework document do not count towards concentrator/completer status for this program of study.

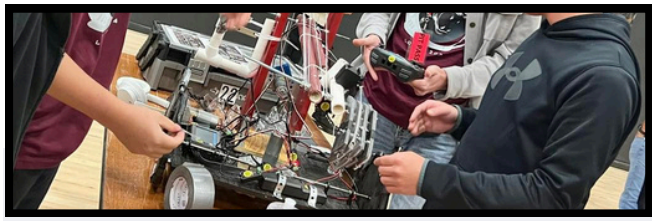
Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Intern with a robotics technician working at a manufacturing plant Shadow a PLC programmer • Tour a manufacturing facility
Expanded Learning Opportunities	• Participate in SkillsUSA or TSA • Build a robot and participate in a robotics competition

Aligned Industry-Based Certifications

- Fusion 360

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Example Postsecondary Opportunities

Associate Degrees
- Instrumentation Technology
- Industrial Technology
- Robotics Technology
- Automation Engineer Technology

Bachelor's Degrees
- Mechanical Engineering
- Electrical Electronics Engineering
- Electrical, Electronic, and Communications
- Engineering Technology
- Electromechanical Engineering Technology

Master's, Doctoral, and Professional Degrees
- Mechanical Engineering
- Engineering/Industrial Management
- Industrial Engineering
- Electrical and Electronics Engineering

Example Aligned Occupations

Computer Numerically Controlled Tool Operators
Median Wage: $46,353
Annual Openings: 1,146
10-Year Growth: 10%

Semiconductor Processing Technicians
Median Wage: $36,902
Annual Openings: 621
10-Year Growth: 9%

Industrial Engineers
Median Wage: $100,000
Annual Openings: 1,898
10-Year Growth: 26%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024.

For more information visit: https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources

Successful completion of the Robotics and Automation Technology program of study will fulfill requirements the STEM endorsement if the math and science requirements are met or of the Business and Industry endorsement.

STEM - Robotics

Career Cluster: STEM

Program: Science

The STEM Science Program of Study prepares students to explore, experiment, and innovate in fields such as biology, chemistry, physics, environmental science, and biotechnology. Through inquiry-based instruction, laboratory experiences, and applied research, students develop critical thinking, scientific reasoning, and technical skills essential for success in STEM careers. Emphasizing collaboration, data analysis, and real-world problem-solving, this program equips learners for advanced education and careers in scientific research, healthcare, engineering, and technology.

Secondary Courses for High School Credit

- Biology
- Chemistry
- Physics
- Anatomy & Physiology
- Forensic Science
- Astronomy
- Biology 2 AP
- Engineering Science
- Adv Plant Science
- Adv Animal Science



AP	AP Physics, AP Biology 2
Dual Credit	Dual Credit Science options offered through Collin

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Job shadowing in laboratories, hospitals, or environmental agencies • Internships with research institutions, biotech firms, or healthcare providers
Expanded Learning Opportunities	• Science Olympiad or Science Fair • STEM clubs • Summer Science Camps • Research projects with local universities or communities



Successful completion of the Math program of study will fulfill requirements of the STEM endorsement.



Example Postsecondary Opportunities

Apprenticeships
- Lab Tech Apprentice
- Water Quality Tech Apprentice

Associate Degrees
- Biological science or Biotechnology
- Laboratory Tech or Ag Science
- Health Science

Bachelor's Degrees
- Biology, Chemistry, or Physics
- Environmental Science or Earth Science
- Biomedical Engineering

Master's, Doctoral, and Professional Degrees
- Scientific research or medical science
- Public Health

Additional Stackable IBCs/License
- OSHA General Industry (lab safety)
- ArcGIS or QGIS cert (for environmental science)

Example Aligned Occupations

Environmental Restoration Planners
Median Wage: $79,386
Annual Openings: 806
10-Year Growth: 21%

Nanosystems Engineer
Median Wage: $108,376
Annual Openings: 1400
10-Year Growth: 14%

Material Scientists
Median Wage: $68,338
Annual Openings: 8
10-Year Growth: 5%

Data Source: My Texas Future accessed: 11/11/2025

For more information visit:
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Social Studies

Career Cluster: General

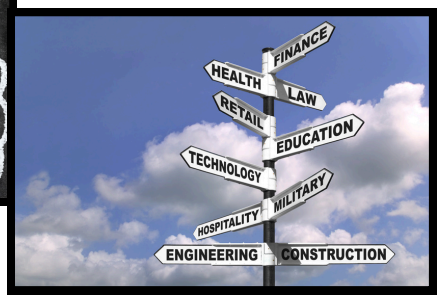
Program: Multidisciplinary

The Multidisciplinary Studies Program provides students with a flexible, well-rounded academic pathway that emphasizes depth and breadth of knowledge across all core subjects. Students complete four credits in each of the four core academic areas—English, mathematics, science, and social studies—while selecting elective courses that match their personal interests, career goals, or academic strengths. This program is designed for students who want to explore multiple fields, prepare for a wide range of postsecondary options, and develop strong foundational skills in communication, critical thinking, problem-solving, and academic literacy.

Secondary Courses for High School Credit

- 4 credits English
- 4 credits Math
- 4 credits Science
- 4 credits Social Studies
- 6 credits General Electives





AP	AP classes for core classes
Dual Credit	Dual credit core classes offered through Collin College

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Job shadowing in a variety of careers based on student interest • Internships with local businesses, nonprofits, or public agencies • Mentorships aligned to a student's chosen elective focus
Expanded Learning Opportunities	• Participation in academic clubs aligned to student interests (e.g., debate, STEM clubs, arts clubs, service organizations) • UIL Academics or Academic Decathlon



Successful completion of the Multidisciplinary program of study will fulfill requirements of the Multidisciplnary endorsement.



Example Postsecondary Opportunities

Apprenticeships
- Administrative Assistant Apprentice
- Information Technology Support Apprentice

Associate Degrees
- General Studies or Liberal Arts
- Business Administration
- Social and Behavioral Science

Bachelor's Degrees
- Interdisciplinary Studies or General Studies
- Communications, English, History, Psychology, or Sociology

Master's, Doctoral, and Professional Degrees
- Interdisciplinary Studies
- Masters of Public Administration (MPA)

Additional Stackable IBCs/License
- Microsoft Office Specialist
- Customer Service & Sales Certificate

Example Aligned Occupations

Help Desk Tech

Median Wage: $51,823
Annual Openings: 1000
10-Year Growth: 23.4%

Customer Service Rep

Median Wage: $38,061
Annual Openings: 2500
10-Year Growth: 7.8%

Insurance Claims Clerk

Median Wage: $47,742
Annual Openings: 1000
10-Year Growth: 6.1%

Data Source: My Texas Future accessed: 11/11/2025

For more information visit:
https://www.mytexasfuture.org/career-explorer

Multidisciplinary