

Agriculture, Food, and Natural Resources Career Cluster

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

Environmental and Natural Resources Statewide Program of Study



The Environmental and Natural Resources program of study explores the occupations and educational opportunities associated with the research, design, and planning of engineering or technical duties in the prevention and control of environmental hazards. This program of study may also include exploration into conducting research for the purpose of identifying, abating, or eliminating sources of pollutants or hazards that affect either the environment or the health of the population.

Secondary Courses for High School Credit

Level 1

- Principles of Agriculture, Food, and Natural Resources

Level 2

- Wildlife, Fisheries, and Ecology Management/Lab

Level 3

Level 4

- Practicum in Agriculture, Food, and Natural Resources

Postsecondary Opportunities

Associates Degrees

- Environmental Science
- Environmental Studies
- Wildlife, Fish, and Woodlands Science and Management
- Environmental Engineering Technology/ Environmental Technology

Bachelor's Degrees

- Environmental Science
- Environmental/ Environmental Health Engineering
- Wildlife, Fish, and Woodlands Science and Management
- Natural Resources Law Enforcement and Protective Services

Master's, Doctoral, and Professional Degree

- Environmental Science
- Environmental/ Environmental Health Engineering
- Wildlife, Fish, and Woodlands Science and Management
- Fishing and Fisheries Science and Management

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities

- Attend summer leadership events
- Participate in Texas FFA

Work-Based Learning Activities

- Intern at a waste treatment plant
- Participate in an FFA supervised agriculture experience



Aligned Occupations

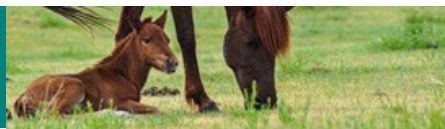
Occupations	Median Wage	Annual Openings	% Growth
Environmental Engineering Technicians	\$53,352	101	32%
Environmental Engineers	\$86,757	288	25%
Environmental Science and Protection Technicians, Including Health	\$40,268	508	17%
Environmental Scientists and Specialists, Including Health	\$77,896	644	24%
Zoologists and Wildlife Biologists	\$67,309	45	32%

Successful completion of the Environmental and Natural Resources program of study will fulfill requirements of the Business and Industry endorsement. Revised – August 2022

Agriculture, Food, and Natural Resources Career Cluster

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Animal Science Statewide Program of Study



The Animal Science program of study focuses on the science, research, and business of animals and other living organisms. It teaches CTE learners how to apply 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 may also research and analyze the growth and destruction of species and research or diagnose diseases and injuries of animals.

Secondary Courses for High School Credit

Level 1

- Principles of Agriculture, Food, and Natural Resources

Level 2

Level 3

- Livestock Production

Level 4

- Advanced Animal Science
- Veterinary Medical Applications/Lab
- Practicum in Agriculture, Food, and Natural Resources

Postsecondary Opportunities

Associates Degrees

- Food Science and Technology
- Veterinary Studies
- Biotechnology Laboratory Technician
- Biology Technician

Bachelor's Degrees

- Animal Sciences
- Agriculture
- Biology
- Zoology/ Animal Biology

Master's, Doctoral, and Professional Degrees

- Genetics
- Veterinary Medicine
- Biological and Physical Sciences
- Biological and Biomedical Sciences

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities

- Participate in Texas FFA

Work-Based Learning Activities

- Compete in an Agri-Science Fair 4H
- Volunteer at a local farm or with a veterinarian
- Participate in an FFA supervised agriculture experience



Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Animal Breeders	\$39,139	28	9%
Animal Scientists	\$57,533	22	12%
Medical Scientists	\$63,898	435	27%
Veterinarians	\$93,496	294	24%
Zoologists and Wildlife Biologists	\$67,309	45	32%

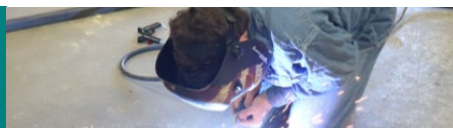
Successful completion of the Animal Science program of study will fulfill requirements of a Business and Industry endorsement or STEM endorsement if the math and science requirements are met. Revised – August 2022

Agriculture, Food, and Natural Resources Career Cluster

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

Agricultural Technology & Mechanical Systems

Statewide Program of Study



The Applied Agricultural Engineering program of study explores the occupations and educational opportunities associated with applying knowledge of engineering technology and biological science to agricultural problems concerned with power and machinery, electrification, structures, soil and water conservation, and processing agricultural products. This program of study may also include exploration into diagnosing, repairing, or overhauling farm machinery and vehicles, such as tractors, harvesters, dairy equipment, and irrigation systems.

Secondary Courses for High School Credit

Level 1

- Principles of Agriculture, Food, and Natural Resources

Level 2

- Agricultural Mechanics and Metal Technologies/Lab

Level 3

- Agricultural Structures Design and Fabrications/Lab
- Agricultural Power Systems/Lab

Level 4

- Practicum in Agriculture, Food, and Natural Resources

Postsecondary Opportunities

Associates Degrees

- Heavy Equipment Maintenance Technology/ Technician
- Agricultural Mechanization, General
- Small Engine Mechanics and Repair Technology/ Technician
- Welding Technology/ Welder

Bachelor's Degrees

- Agricultural Engineering
- Agricultural Mechanization, General

Master's, Doctoral, and Professional Degrees

- Agricultural Engineering
- Agricultural Mechanization, General

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities

- Tour a farm products or machinery plant
- Participate in Texas FFA

Work-Based Learning Activities

- Earn a welding certification
- Intern at a farm products or machinery plant
- Participate in an FFA supervised agriculture experience

Industry-Based Certifications

- AWS D1.1 Structural Steel



Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Outdoor Power Equipment and Other Small Engine Mechanics	\$32,406	366	16%
Welders	\$41,350	6171	9%
Farm Equipment Mechanics and Service Technicians	\$39,915	304	17%
Mobile Heavy Equipment Mechanics	\$47,299	1627	16%
Agricultural Engineers	\$64,792	9	13%

Successful completion of the Applied Agricultural Engineering program of study will fulfill requirements of a Business and Industry endorsement or STEM endorsement if the math and science requirements are met. Revised – August 2022

Agriculture, Food, and Natural Resources Career Cluster

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Plant Science Statewide Program of Study



The Plant Science program of study focuses on the science, research, and business of plants and other living organisms. It teaches students how to apply 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

Level 1

- Principles of Agriculture, Food, and Natural Resources

Level 2

- Landscape Design and Management (8th grade only)

Level 3

- Floral Design/Lab
- Horticultural Science/Lab

Level 4

- Practicum in Agriculture, Food, and Natural Resources
- Advanced Plant and Soil Science
- Advanced Floral Design

Postsecondary Opportunities

Associates Degrees

- Applied Horticulture/ Horticulture Operations, General
- Ornamental Horticulture
- Agricultural Business and Management, General
- Turf and Turfgrass Management

Bachelor's Degrees

- Applied Horticulture/ Horticulture Operations, General
- Agronomy and Crop Science
- Agricultural Business and Management, General
- Turf and Turfgrass Management

Master's, Doctoral, and Professional Degrees

- Applied Horticulture/ Horticulture Operations, General
- Agronomy and Crop Science
- Agricultural Business and Management, General
- Farm/Farm and Ranch Management

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities

- Participate in Texas FFA

Work-Based Learning Activities

- Work at a florist or landscaper business
- Participate in an FFA supervised agriculture experience

Industry-Based Certifications

- Texas State Florist's Association Level I Floral Certification
- Texas State Florist's Association Level II Floral Certification



Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Soil and Plant Scientists	\$54,662	116	21%
Tree Trimmers and Pruners	\$32,240	589	14%
Pesticide Handlers, Sprayers, and Applicators	\$36,733	196	22%
Landscaping Supervisors	\$44,408	807	19%
Biological Technicians	\$42,931	452	17%

Successful completion of the Plant Science program of study will fulfill requirements of a Business and Industry endorsement or STEM endorsement if the math and science requirements are met. Revised – August 2022

Law and Public Service Career Cluster

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

Law Enforcement Statewide Program of Study



The Law Enforcement program of study teaches CTE learners about the development of, adherence to, and protection of various branches of law. Students will learn how to appropriately and legally respond to breaches in the law according to statutory rules and regulations as well as investigate how and why the breaches occurred.

Secondary Courses for High School Credit

Level 1

- Principles of Law, Public Safety, Corrections, and Security

Level 2

- Law Enforcement I

Level 3

- Law Enforcement II

Level 4

- Forensic Science
- Practicum in Law, Public Safety Corrections, and Security

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities

- Join the Texas Public Service Association or local criminal justice clubs

Work-Based Learning Activities

- Attend court hearings and other legal procedures

Postsecondary Opportunities

Associates Degrees

- Criminal Justice/Safety Studies/Law
- Enforcement Administration
- Criminal Justice/Police Science
- Corrections
- Criminalistics and Criminal Science

Bachelor's Degrees

- Criminal Justice/Safety Studies/Law
- Enforcement Administration
- Criminal Justice/Police Science
- Juvenile Corrections
- Cyber/Computer Forensics and Counterterrorism

Master's, Doctoral, and Professional Degrees

- Criminal Justice/Safety Studies/Law
- Enforcement Administration
- Natural Resources
- Law Enforcement and Protective Services



Aligned Occupations

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

Successful completion of the Law and Public Service program of study will fulfill requirements of the Public Service endorsement. Revised – August 2022

Law and Public Service Career Cluster

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

Legal Studies Statewide Program of Study



The Legal Studies program of study introduces CTE learners to the occupations and educational opportunities related to representing clients in criminal and civil litigation and other legal proceedings, as well as assisting lawyers and preparing legal documents. This program of study explores possible specializations in a single area of law.

Secondary Courses for High School Credit

Level 1

- Principles of Law, Public Safety, Corrections, and Security

Level 2

- Court Systems and Practices
- Foundations of Court Reporting

Level 3

- Advanced Legal Skills and Professions

Level 4

- Practicum in Law, Public Safety, Corrections, and Security
- Real Time Court Reporting
- Forensic Science
- Career Preparation I

Postsecondary Opportunities

Associates Degrees

- Legal Assistant/Paralegal

Bachelor's Degrees

- Legal Assistant/Paralegal

Master's, Doctoral, and Professional Degrees

- Law
- Intellectual Property Law
- Advanced Legal Research/Studies General
- International Law and Legal Studies

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities

- Attend court hearings and other legal procedures
- Join the Texas Public Service Association

Work-Based Learning Activities

- Intern with a local attorney
- Script and conduct a mock trial

Level I Certificate

- Information Reporting/Scoping (Del Mar) IREP.CER1



Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Lawyers	\$126,131	2,801	19%
Paralegal and Legal Assistants	\$50,544	2,837	19%

Law and Public Service Career Cluster

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

Fire Science Statewide Program of Study



The Emergency Services program of study focuses on training CTE learners to respond to emergency situations, such as medical emergencies and fire-based emergencies. Students will learn how to prevent emergencies, respond appropriately and in accordance with rules and regulations during crises, and investigate and delineate the source of the emergency.

Secondary Courses for High School Credit

Level 1

- Principles of Law, Public Safety, Corrections, and Security

Level 2

Level 3

- Firefighter I
- Anatomy and Physiology
- Emergency Medical Technician – Basic

Level 4

- Firefighter II
- Practicum in Law, Public Safety, Corrections, and Security

Postsecondary Opportunities

Associates Degrees

- Emergency Medical Technology/Technician (EMT Paramedic)
- Fire Prevention and Safety Technology/Technician
- Fire Science/Firefighting

Bachelor's Degrees

- Emergency Medical Technology/Technician (EMT Paramedic)
- Natural Resources Law Enforcement and Protective Services

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities

- Attend local emergency awareness events
- Join the Texas Public Service Association

Work-Based Learning Activities

- Volunteer at a hospital or a fire station

Level II Certificate

- Basic Firefighter (Delmar) FIFT.CERT2



Aligned Occupations

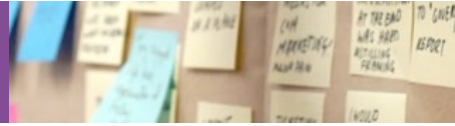
Occupations	Median Wage	Annual Openings	% Growth
Firefighters	\$50,149	2,309	13%
Fire Inspectors and Investigators	\$54,787	161	14%
Emergency Medical Technicians	\$34,091	1,880	31%

Successful completion of the Emergency Services program of study will fulfill requirements of the Public Service endorsement. Revised – August 2022

Business, Marketing, and Finance Career Cluster

The Business, Marketing, and Finance Career Cluster focuses on careers in planning, organizing, directing, and evaluating business functions essential to efficient and productive business operations.

Business Management Statewide Program of Study



The Business Management program of study teaches CTE learners how to plan, direct, and coordinate the administrative services and operations of an organization. Through this program of study, students will learn the skills necessary to formulate policies, manage daily operations, and allocate the use of materials and human resources. This program of study will also introduce students to mathematical modeling tools and organizational evaluation methods.

Secondary Courses for High School Credit

Level 1

- Principles of Business, Marketing, and Finance
- Business Information Management I/Lab

Level 2

- Business Information Management II/Lab

Level 3

Level 4

- Career Preparation I

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities

- Participate in Business Professional of America, Future Business Leaders of America, or DECA

Work-Based Learning Activities

- Intern with a local business or chamber of commerce

Industry-Based Certifications

- Microsoft Office Specialist: Microsoft Excel Expert (Excel 2019)
- Microsoft Office Specialist: Microsoft Word Expert (Word 2019)



Postsecondary Opportunities

Associates Degrees

- Business Administration
- Business/Commerce
- Public Administration
- Business Management

Bachelor's Degrees

- Business Administration
- Business/Commerce
- Public Administration
- Management Science

Master's, Doctoral, and Professional Degrees

- Business Administration
- Business Management
- Public Administration
- Management Science

Aligned Occupations

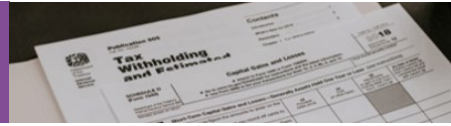
Occupations	Median Wage	Annual Openings	% Growth
Administrative Service Managers	\$96,138	2,277	21%
Management Analysts	\$87,651	4,706	32%
General and Operations Managers	\$107,640	18,679	20%
Supervisors of Administrative Support Works	\$57,616	14,982	20%

Successful completion of the Business Management program of study will fulfill requirements of the Business and Industry endorsement. Revised – August 2022

Business, Marketing, and Finance Career Cluster

The Business, Marketing, and Finance Career Cluster focuses on careers in planning, organizing, directing, and evaluating business functions essential to efficient and productive business operations.

Accounting and Financial Services Statewide Program of Study



The Accounting and Financial Services program of study teaches CTE learners how to examine, analyze, and interpret financial records. Through this program of study, students will learn the skills necessary to perform financial services, prepare financial statements, interpret accounting records, give advice, or audit and evaluate statements prepared by others. This program of study will also introduce students to mathematical modeling tools.

Secondary Courses for High School Credit

Level 1

- Principles of Business, Marketing, and Finance
- Business Information Management I/Lab

Level 2

- Accounting I
- Financial Mathematics

Level 3

- Accounting II

Level 4

- Career Preparation I

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities

- Participate in Business Professionals of America, Future Business Leaders of America, or DECA

Work-Based Learning Activities

- Intern with a local accounting firm
- Earn Microsoft Office certifications

Industry-Based Certifications

- Microsoft Office Specialist: Microsoft Excel Expert (Excel and Excel 2019)

Postsecondary Opportunities

Associates Degrees

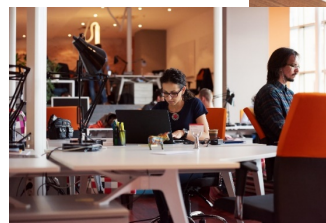
- Real Estate
- Financial, General
- Financial Planning and Services
- Certified Income Specialist

Bachelor's Degrees

- Accounting
- Financial, General
- Financial Planning and Services
- Certified Income Specialist

Master's, Doctoral, and Professional Degrees

- Financial Accounting
- Business Administration
- Financial Planning



Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Accountants and Auditors	\$71,469	14,436	22%
Loan Officers	\$68,598	2,419	19%
Personal Financial Advisors	\$86,965	1,861	52%
Administrative service Managers	\$96,138	2,277	21%
Insurance Underwriters	\$66,206	594	14%

Arts, Audio/Video Technology, and Communications Career Cluster

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

Digital Communications Statewide Program of Study



The Digital Communications program of study explores the occupations 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. This program of study may also include exploration into operating machines and equipment to record sound and images, such as microphones, sound speakers, video screens, projectors, video monitors, sound and mixing boards, and related electronic equipment.

Secondary Courses for High School Credit

Level 1

- Principles of Arts, Audio/Video Technology, and Communications
- Professional Communications

Level 2

- Audio/Video Production I/Lab

Level 3

- Audio/Video Production II/Lab

Level 4

- Practicum of Audio/Video Production

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities

- Shadow a production team
- Participate in SkillsUSA or TSA

Work-Based Learning Activities

- Intern at a local television station or video production company
- Work with a local company on a project

Postsecondary Opportunities

Associates Degrees

- Recording Arts Technology/Technician
- Cinematography and Film/Video Production
- Radio and Television Broadcasting Technology/Technician
- Music Technology

Bachelor's Degrees

- Recording Arts Technology/Technician
- Cinematography and Film/Video Production
- Radio and Television
- Agricultural Communication/Journalism

Master's, Doctoral, and Professional Degrees

- Communications Technology/Technician
- Cinematography and Film/Video Production
- Radio and Television
- Agricultural Communication/Journalism



Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Sound Engineering Technicians	\$39,562	79	27%
Camera Operators, Television, Video, and Motion Picture	\$50,024	129	9%
Audio and Video Equipment Technicians	\$40,581	757	29%
Film and Video Editors	\$47,382	118	23%

Successful completion of the Digital Communications program of study will fulfill requirements of the Business and Industry endorsement. Revised – August 2022

Arts, Audio/Video Technology, and Communications Career Cluster

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

Graphic Design & Interactive Media Statewide Program of Study



The Graphic Design and Multimedia Arts program of study explores the occupations and educational opportunities associated with designing or creating graphics to meet specific commercial or promotional needs, such as packaging, displays, or logos. This program of study may also include exploration into 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

Level 1

- Principles of Arts, A/V Technology, and Communications
- Video Game Design

Level 2

- Graphic Design and Illustration I/Lab
- Digital Design and Media Production

Level 3

- Graphic Design and Illustration II/Lab

Level 4

- Practicum in Graphic Design and Illustration
- Career Preparation I

Postsecondary Opportunities

Associates Degrees

- Animation, Interactive Technology, Video Graphics and Special Effects
- Graphic Design
- Game and Interactive Media Design

Bachelor's Degrees

- Animation, Interactive Technology, Video Graphics and Special Effects
- Graphic Design
- Game and Interactive Media Design

Master's, Doctoral, and Professional Degrees

- Animation, Interactive Technology, Video Graphics and Special Effects
- Graphic Design
- Intermedia/Multimedia

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities

- Join a website development or coding club
- Participate in SkillsUSA or TSA

Work-Based Learning Activities

- Intern with a multimedia or animation studio
- Obtain a certificate or certification in graphic design



Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Graphic Designers	\$44,824	1,433	15%
Multimedia Artists and Animators	\$67,392	186	21%

Successful completion of the Graphic Design & Multimedia Arts program of study will fulfill requirements of the Business and Industry endorsement. Revised – August 2022

Energy Career Cluster

The Energy Career Cluster prepares individuals for careers in the designing, planning, maintaining, generating, transmission, and distribution of traditional and alternative energy.

Refining and Chemical Processes *Statewide Program of Study*



The Refining and Chemical Processes program of study helps CTE learners discover how to monitor, adjust, and control different equipment housed in petrochemical plants and refineries. It introduces students to the computer technology and instrumentation used to operate a variety of equipment systems and industrial processes, helping students build the skills needed to operate these systems.

Secondary Courses for High School Credit

Level 1

Level 2

- Intro to Process Tech
- Intro to Instrumentation

Level 3

- Petrochemical Safety, Health, & Environment
- Advanced Instrumentation and Electrical

Level 4

- Applied Mathematics for Industry

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities

- Tour a power plant or refinery

Work-Based Learning Activities

- Attend student summer conferences

Industry-Based Certifications

- NCCER Instrumentation Level I

Postsecondary Opportunities

Associates Degrees

- Process Technology
- Process Operating Technology
- Logistics, Material, and Supply Chain Management
- Petroleum Technology/ Technician

Bachelor's Degrees

- Business Administration and Management, General
- Business/Commerce, General
- Industrial Engineering
- Petroleum Engineering

Master's, Doctoral, and Professional Degrees

- Business Administration and Management, General
- Business/Commerce, General
- Industrial Engineering
- Petroleum Engineering



Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Gas Plant Operators	\$62,650	312	9%
Petroleum Pump System Operators, Refinery Operators, and Gaugers	\$71,488	1,181	9%
Power Plant Operators	\$71,635	309	9%

Successful completion of the Refining and Chemical Processes program of study will fulfill requirements of the Business and Industry endorsement or STEM endorsement if the math and science requirements are met.. Revised – August 2022

Energy Career Cluster

The Energy Career Cluster prepares individuals for careers in the designing, planning, maintaining, generating, transmission, and distribution of traditional and alternative energy.

Oil and Gas Exploration and Production *Statewide Program of Study*



The Oil and Gas Exploration and Production program of study focuses on processing, refining, and distributing petroleum and gas. It introduces CTE learners to the process of regulating the flow of oil into pipelines, controlling pumping systems, and operating and maintaining machinery to generate electric power.

Secondary Courses for High School Credit

Level 1

- Process Technology I

Level 2

- Process Technology II

Level 3

Level 4

- Applied Mathematics for Industry
- Career Prep I

Postsecondary Opportunities

Associates Degrees

- Petroleum Engineering
- Chemical Engineering
- Petroleum Technology/ Technician
- Industrial Mechanics and Maintenance Technology

Bachelor's Degrees

- Petroleum Engineering
- Chemical Engineering
- Mechanical Engineering
- Industrial Engineering

Master's, Doctoral, and Professional Degrees

- Petroleum Engineering
- Chemical Engineering
- Mechanical Engineering
- Industrial Engineering

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities

- Intern at an oil or gas company
- Read trade publications to understand economic and political issues

Work-Based Learning Activities

- Earn an American Petroleum Institute Certification



Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Extraction Workers- All Other	\$44,616	145	25%
Extraction Workers	\$34,570	1,000	7%
Drill Operators, Oil and Gas	\$52,083	925	14%

Education and Training Career Cluster

The Education and Training Career Cluster focuses on planning, managing, and providing education and training services and related learning support services. All parts of courses are designed to introduce learners to the various careers available within the Education and Training career cluster.

Teaching and Training Statewide Program of Study



The Teaching and Training program of study prepares CTE learners for careers related to teaching, instruction, and creation of instructional and enrichment materials. The program of study introduces CTE learners to a wide variety of student groups and their corresponding needs. It familiarizes them with the processes for developing curriculum, coordinating educational content, and coaching groups and individuals.

Secondary Courses for High School Credit

Level 1

- Principles of Education and Training
- Principles of Human Service

Level 2

- Child Development

Level 3

- Instructional Practices

Level 4

- Practicum in Education and Training
- Career Preparation I

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities

- Participate in the Texas Association of Future Educators or Family, Career, and Community Leaders of America

Work-Based Learning Activities

- Teach a community education class
- Intern as a teaching assistant or tutor
- Serve as a camp counselor

Postsecondary Opportunities

Associates Degrees

- Teacher Education
- Education, General (or specific subject area)
- Special Education
- Health and Physical Education/Fitness

Bachelor's Degrees

- Bilingual and Multilingual Education
- Education, General (or specific subject area)
- Special Education
- Health and Physical Education/Fitness

Master's, Doctoral, and Professional Degrees

- Instruction and Learning
- Educational Leadership and Administration, General
- Special Education
- Social and Philosophical Foundations of Education



Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Adult Basic and Secondary Education and Literacy Teachers and Instructors	\$48,069	862	17%
Middle School Teachers, Except Special and Career/Technical Education	\$54,510	6,407	15%
Career and Technical Education Teachers, Secondary School	\$56,360	719	9%
Special Education Teachers, Secondary School	\$56,720	980	18%

Successful completion of the Teaching and Training program of study will fulfill requirements of the Public Service endorsement. Revised – August 2022

Education and Training Career Cluster

The Education and Training Career Cluster focuses on planning, managing, and providing education and training services and related learning support services. All parts of courses are designed to introduce learners to the various careers available within the Education and Training career cluster.

Early Learning Statewide Program of Study



The Early Learning program of study focuses on early childhood education, which consists of instructing and supporting preschool and early elementary school students in activities that promote social, physical and intellectual growth as well as in basic elements of science, art, music, and literature. This program of study introduces CTE learners to tasks necessary for planning, directing, and coordinating activities for young children.

Secondary Courses for High School Credit

Level 1

- Principles of Education and Training
- Principles of Human Services

Level 2

- Child Development

Level 3

Level 4

- Career Preparation I

Postsecondary Opportunities

Associates Degrees

- Early Childhood Education and Teaching
- Multicultural Early Childhood Development
- Kindergarten/Preschool Education and Training
- Psychology/Sociology

Bachelor's Degrees

- Early Childhood Education and Teaching
- Multicultural Early Childhood Development
- Early Childhood
- Psychology/Sociology

Master's, Doctoral, and Professional Degrees

- Early Childhood Education and Teaching
- Multicultural Early Childhood Development
- Educational, Instructional, and Curriculum Supervision
- Educational Leadership and Administration

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities

- Participate in the Texas Association of Future Educators or Family, Career, and Community Leaders of America

Work-Based Learning Activities

- Teach a community education class
- Volunteer as a teaching assistant



Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Kindergarten Teachers, except Special Education	\$53,310	1,848	17%
Preschool Teachers	\$27,851	4,330	17%
Elementary School Teachers	\$54,140	13,121	16%
Education Administrators, Elementary and Secondary School	\$79,830	2407	16%

Successful completion of the Early Learning program of study will fulfill requirements of the Public Service endorsement.

Revised – August 2022

Architecture and Construction Career Cluster

The Architecture and Construction Career Cluster focuses on designing, planning, managing, building, and maintaining the built environment. Principles of Architecture provides an overview to the various fields of architecture, interior design, and construction management.

Pipefitting Statewide Program of Study



The Plumbing and Pipefitting program of study explores the occupations and educational opportunities related to assembling, installing, or repairing pipes, fittings, or fixtures of heating, water, or drainage systems. This program of study may also include exploration into maintaining pipe supports or related hydraulic or pneumatic equipment for steam, hot water, heating, cooling, lubricating, sprinkling, or industrial production or processing systems.

Secondary Courses for High School Credit

Level 1

- Principles of Construction Science (8th grade only)
- Introduction to Welding

Level 2

- CTC Pipefitting A

Level 3

- CTC Pipefitting B

Level 4

- Career Prep I

Postsecondary Opportunities

Associates Degrees

- Plumbing Technology/ Plumber
- Electrical and Power Transmission Installation/ Installer, General
- Pipefitting/ Pipefitter and Sprinkler Fitter
- High Performance and Custom Engine Technician/ Mechanic

Bachelor's Degrees

- Construction Science
- Operations Management and Supervision

Master's, Doctoral, and Professional Degrees

- Construction Management
- Operations Management and Supervision

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities

- Job shadow a pipefitter or steamfitter
- Participate in SkillsUSA

Work-Based Learning Activities

- Obtain a Core Curriculum NCCER certification in Pipefitting Level I

Industry-Based Certifications

- NCCER Pipefitting, Level I



Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Mechanics, Installers, and Repairers	\$63,710	4,243	17%
Plumbers, Pipefitters and Steamfitters	\$44,928	5,765	23%
Helpers-Pipelayers, Plumbers, Pipefitters, and Steamfitters	\$30,098	1,567	18%
Pipe Installers	\$31,616	802	21%

Successful completion of the Plumbing and Pipefitting program of study will fulfill requirements of the Business and Industry endorsement. Revised – August 2022

Architecture and Construction Career Cluster

The Architecture and Construction Career Cluster focuses on designing, planning, managing, building, and maintaining the built environment. Principles of Architecture provides an overview to the various fields of architecture, interior design, and construction management.

HVAC and Sheet Metal Statewide Program of Study



The HVAC and Sheet Metal program of study explores the occupations and educational opportunities associated with installing, serving, or repairing heating and air conditioning systems and also the fabrication, assembly, installation, and repair of sheet metal products and equipment, such as ducts, control boxes, drainpipes, and furnace casings. This program of study may also include exploration into preparing cost estimates for certain construction projects involving heating and air conditioning and sheet metal.

Secondary Courses for High School Credit

Level 1

- Principles of Construction Science (8th grade only)

Level 2

- Heating, Ventilation Air Conditioning (HVAC) and Refrigeration I

Level 3

- Heating, Ventilation Air Conditioning (HVAC) and Refrigeration II

Level 4

- Heating, Ventilation Air Conditioning (HVAC) and Refrigeration III
- Career Preparation I

Postsecondary Opportunities

Associates Degrees

- Business Administration and Management, General
- Mechanical Engineering
- Heating, Ventilation, Air Conditioning and Refrigeration Engineering Technology/ Technician
- Business/ Commerce, General

Bachelor's Degrees

- Business Administration and Management
- Mechanical Engineering
- Construction Engineering Technology/ Technician
- Business/ Commerce, General

Master's, Doctoral, and Professional Degrees

- Business Administration and Management
- Mechanical Engineering
- Construction Engineering
- Business/Commerce, General

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities

- Shadow an HVAC worker or cost estimator
- Participate in SkillsUSA

Work-Based Learning Activities

- Intern with an HVAC and/or sheet metal company

Level 1 Certificate

- Air Conditioning & Applied Technology (Delmar)



Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Heating, Air Conditioning, and Refrigeration Mechanics	\$41,808	3,356	26%
Sheet Metal Workers	\$37,419	1,479	17%
Cost Estimators	\$63,939	2,239	21%

Architecture and Construction Career Cluster

The Architecture and Construction Career Cluster focuses on designing, planning, managing, building, and maintaining the built environment. Principles of Architecture provides an overview to the various fields of architecture, interior design, and construction management.

Electrical Statewide Program of Study



The Electrical program of study explores the occupations and educational opportunities associated with installing, maintaining, and repairing electrical wiring, equipment, and fixtures. This program of study may also include exploration into installing and repairing telecommunications cable including fiber optics.

Secondary Courses for High School Credit

Level 1

- Principles of Construction Science (8th grade only)

Level 2

- Electrical Technology I

Level 3

- Electrical Technology II

Level 4

Postsecondary Opportunities

Associates Degrees

- Electrician
- Communications Systems Installation and Repair Technology

Bachelor's Degrees

- Construction Science

Master's, Doctoral, and Professional Degrees

- Construction Management

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities

- Shadow an electrician or fiber optics line installer
- Participate in SkillsUSA

Work-Based Learning Activities

- Intern or shadow an electrician

Industry-Based Certifications

- NCCER Electrical Level I
- NCCER Electrical Level II



Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Electrical Linemen	\$54,184	1,314	28%
Electricians	\$44,013	8,460	21%
Electrical and Electronics Installers	\$37,544	245	19%
Security and Fire Alarm Installers	\$43,638	1,112	22%
Telecommunication Line Installers and Repairers	\$49,150	1,228	10%

Successful completion of the Electrical program of study will fulfill requirements of the Business and Industry endorsement and STEM endorsement if the math and science requirements are met. Revised – August 2022

Human Services Career Cluster

The Human Services Career Cluster focuses on preparing individuals for employment in career pathways that relate to families and human needs such as counseling and mental health services, family and community services, personal care services, and consumer services.

Health and Wellness Statewide Program of Study



The Health and Wellness program of study introduces students to knowledge and skills related to promoting physical, emotional, social, and mental health and wellness. Students who choose this program of study may learn how to assist patients in planning for their health and wellness, respond to crises, and advise, provide education or counseling, or make referrals. CTE learners may also focus on addressing barriers to access health and wellness services.

Secondary Courses for High School Credit

Level 1

- Principles of Human Services
- Dollars and Sense (8th grade only)

Level 2

- Lifetime Nutrition and Wellness
- Interpersonal Studies
- Child Development

Level 3

- Family and Community Services

Level 4

- Career Preparation I

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities

- Participate in American Association of Family and Consumer Sciences or the Family Career and Community Leaders of America

Work-Based Learning Activities

- Job shadow a dietitian or nutritionist
- Work part-time at a counseling services center, health department or hospital

Postsecondary Opportunities

Associates Degrees

- Nutrition Sciences
- Community Health Services/Liaison/Counseling
- Health and Wellness, General
- Public Health

Bachelor's Degrees

- Nutrition Sciences
- Mental Health Counseling/Counselor
- Nutrition
- Human Nutrition and Foods

Master's, Doctoral, and Professional Degrees

- Nutrition Sciences
- Community Health and Preventative Medicine
- Nutrition
- Exercise and Sports Nutrition



Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Community Health Workers	\$38,064	592	25%
Rehabilitation Counselors	\$43,930	586	23%
Mental Health Counselors	\$41,558	812	38%
Health Care Social Workers	\$55,515	1,583	35%

Human Services Career Cluster

The Human Services Career Cluster focuses on preparing individuals for employment in career pathways that relate to families and human needs such as counseling and mental health services, family and community services, personal care services, and consumer services.

Family and Community Services Statewide Program of Study



The Family and Community Services program of study introduces students to knowledge and skills related to social services, including child and human development and consumer sciences. CTE learners may learn about or practice managing social and community services or teaching family and consumer sciences. Students may follow career paths in social work or therapy for children, families, or school communities.

Secondary Courses for High School Credit

Level 1

- Dollars and Sense (8th grade only)
- Principles of Human Services
- Professional Communications

Level 2

- Lifetime Nutrition and Wellness
- Child Development
- Interpersonal Studies

Level 3

- Family and Community Services

Level 4

- Career Preparation I

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities

- Participate in American Association of Family and Consumer Sciences or Family, Career and Community Leaders of America

Work-Based Learning Activities

- Volunteer at a community center
- Intern for a community non-profit organization

Postsecondary Opportunities

Associates Degrees

- Human Development and Family Studies
- Human Services/Sciences, General
- Family and Consumer Sciences
- Community Health Services

Bachelor's Degrees

- Human Development and Family Studies
- Human Services/Sciences, General
- Family and Consumer Sciences
- Child and Family Services

Master's, Doctoral, and Professional Degrees

- Human Development and Family Studies
- Marriage and Family Therapy/Counseling
- Human Services/Sciences
- Family Studies



Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Child, Family, and School Social Workers	\$41,350	2,221	17%
Social and Community Services Managers	\$65,146	608	33%
Marriage and Family Therapists	\$42,266	217	35%
Social and Human Service Assistants	\$32,448	2,822	25%

Successful completion of the Family and Community Services program of study will fulfill requirements of the Public Service endorsement. Revised – August 2022

Human Services Career Cluster

The Human Services Career Cluster focuses on preparing individuals for employment in career pathways that relate to families and human needs such as counseling and mental health services, family and community services, personal care services, and consumer services.

Cosmetology and Personal Care Services Regional Program of Study



The Cosmetology and Personal Care Services regional program of study introduces CTE learners to knowledge and skills related to providing beauty and personal care services. CTE concentrators may learn about or practice managing personal care facilities and coordinating or supervising personal service workers.

Secondary Courses for High School Credit

Level 1

- Principles of Cosmetology

Level 2

- Introduction to Cosmetology
- Cosmetology Nail and Spa
- Esthetics

Level 3

- Cosmetology I/Lab

Level 4

- Cosmetology II/Lab

Postsecondary Opportunities

Certificate/License

- Certified Aesthetic Laser Operator
- Cosmetologist
- Certified Spa Supervisor
- Nail Technician/Specialist and Manicurist

Associates Degrees

- Cosmetology/Cosmetologist, General
- Aesthetician/Esthetician and Skin Care Specialist
- Salon/Beauty Salon Management/Manager
- Cosmetology, Barber/Styling, and Nail Instructor

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities

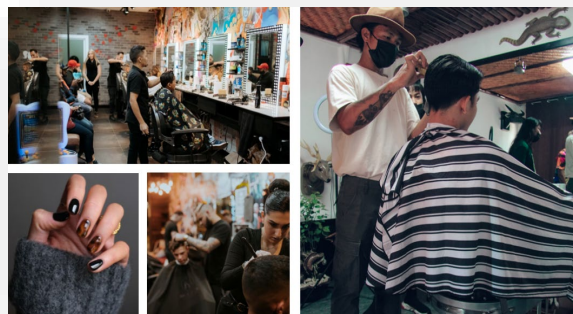
- Participate in TIVA or SkillsUSA

Work-Based Learning Activities

- Job shadow a cosmetologist
- Work part-time at a salon, spa, or barbershop

Level 1 Certificate

- Cosmetology Certificate
ACAT.CER 1



Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
First-Line Supervisors of Personal Service Workers	\$36,941	1,634	24%
Barbers	\$28,267	348	14%
Hairdressers, Hairstylists, and Cosmetologists	\$21,507	3,489	22%
Manicurists and Pedicurists	\$21,715	418	45%
Shampooers	\$18,720	139	24%
Skincare Specialists	\$26,437	637	22%

Successful completion of the Cosmetology and Personal Care Services regional program of study will fulfill requirements of the Public Service endorsement. Revised – August 2022

Manufacturing Career Cluster

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

Welding Statewide Program of Study



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

Level 1

- Introduction to Welding

Level 2

- Welding I

Level 3

- Welding II/Lab
- Welding III

Level 4

- Career Preparation I

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities

- Participate and compete in SkillsUSA
- Job shadow a machinist

Work-Based Learning Activities

- Work in a local business or industry apprenticeship
- Join the American Welding Society

Industry-Based Certifications

- NCCER Core
- NCCER Welding Level I

Postsecondary Opportunities

Associates Degrees

- Certified Welder or Welder Inspector
- Machine Shop Technology/Assistant
- Operations Management and Supervision
- Occupational Safety and Health Technology/Technician

Bachelor's Degrees

- Welding Engineering Technology/Technician
- Biomedical Technology/Technician
- Operations Management and Supervision
- Environmental Health

Master's, Doctoral, and Professional Degrees

- Welding Engineering Technology/Technician
- Occupational Health and Industrial Hygiene
- Operations Management and Supervision
- Environmental Health



Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Welders, Cutters, Solderers, and Brazers	\$41,350	6,171	9%
Welding Soldering and Brazing Machine Setters, Operators and Tenders	\$40,040	280	9%

Successful completion of the Welding program of study will fulfill requirements of the Business and Industry endorsement. Revised – August 2022

Transportation, Distribution, and Logistics Career Cluster

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

Automotive Statewide Program of Study



The Automotive program of study teaches CTE learners how to repair and refinish automobiles and service various types of vehicles. CTE learners may learn to collect payment for services or supplies and perform typical vehicle maintenance procedures such as lubrication, oil changes, installation of antifreeze, or replacement of accessories like wiper blades or tires.

Secondary Courses for High School Credit

Level 1

Level 2

- Automotive Basics

Level 3

- Automotive Technology I

Level 4

- Automotive Technology II/Lab

Postsecondary Opportunities

Associates Degrees

- Autobody/ Collision and Repair Technology/ Technician
- Medium/Heavy Vehicle and Truck Technology/ Technician
- Mechanical Engineering/ Mechanical Technology/ Technician

Bachelor's Degrees

- Mechanical Engineering/ Mechanical Technology/ Technician

Master's, Doctoral, and Professional Degrees

- Mechanical Engineering

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities

- Join SkillsUSA or the Automotive Service Association

Work-Based Learning Activities

- Work at a local automotive repair or body shop

Industry-Based Certifications

- Level I Certificate Automotive (Delmar)



Aligned Occupations

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

Science, Technology, Engineering, and Mathematics Career Cluster

The Science, Technology, Engineering, and Mathematics (STEM) Career Cluster focuses on planning, managing, and providing, scientific research and professional and technical services, including laboratory and testing services, and research and development services.

Engineering Statewide Program of Study



The Engineering program of study focuses on the design, development, and use of engines, machines, and structures. CTE learners will learn how to apply science, mathematical methods, and empirical evidence to the innovation, design, construction, operation, and maintenance of different manufacturing systems.

Secondary Courses for High School Credit

Level 1

- Introduction to Engineering Design (PLTW)

Level 2

- CAD I (AutoCAD/Revit)

Level 3

- Engineering Science
- CAD II (Inventor/Solidworks)

Level 4

- Engineering Design and Problem Solving

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities

- Participate in Skills USA competitions

Work-Based Learning Activities

- Intern at an engineering firm
- Shadow a machinist

Industry-Based Certifications

- Autodesk Associate (Certified User)
- Autodesk Associate (Certified User) Inventor for Mechanical Design
- Autodesk Associate (Certified User) Revit Architecture
- Certified SOLIDWORKS Associate*
*IBC sunseting 8/31/24

Postsecondary Opportunities

Associates Degrees

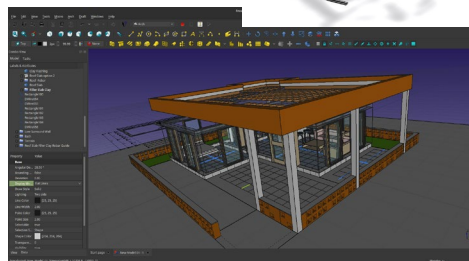
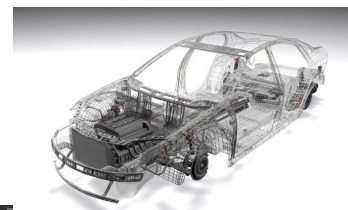
- Electrical and Electronics Engineering
- Drafting and Design Technology/ Technician, General
- Engineering Technology

Bachelor's Degrees

- Electrical and Electronics Engineering
- CAD/CADD Drafting and/or Design Technology/ Technician
- Bioengineering and Biomedical Engineering
- Construction Engineering Technology/ Technician

Master's, Doctoral, and Professional Degrees

- Electrical and Electronics Engineering
- Mechanical Engineering
- Bioengineering and Biomedical Engineering



Aligned Occupations

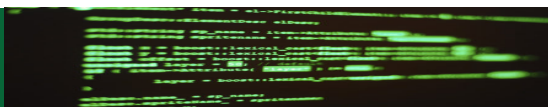
Occupations	Median Wage	Annual Openings	% Growth
Aerospace Engineers	\$110,843	481	9%
Industrial Engineers	\$97,074	1,263	10%
Mechanical Engineers	\$91,107	1,535	11%
Chemical Engineers	\$112,819	474	9%
Electrical Engineers	\$98,405	1,137	105

Successful completion of the Engineering program of study will fulfill requirements of the Business and Industry or STEM endorsement if the math and science requirements are met. Revised – August 2022

Science, Technology, Engineering, and Mathematics Career Cluster

The Science, Technology, Engineering, and Mathematics (STEM) Career Cluster focuses on planning, managing, and providing, scientific research and professional and technical services, including laboratory and testing services, and research and development services.

Programming and Software Development Statewide Program of Study



The Programming and Software Development program of study explores the occupations and education opportunities associated with researching, designing, developing, and testing operating systems-level software, compilers, and network distribution software for medical, industrial, military, communications, aerospace, business, scientific, and general computer applications. This program of study may also include exploration into creating, modifying, and testing the codes, forms, and script that allow computer applications to run.

Secondary Courses for High School Credit

Level 1

Level 2

- AP Computer Science Principles
- Computer Science I

Level 3

- AP Computer Science A, MATH
- AP Computer Science A, LOTE
- Computer Science II

Level 4

- Computer Science III
- Career Preparation I
- Practicum in Audio/Video Production

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities

- Join TSA
- Participate in a coding club at school

Work-Based Learning Activities

- Obtain a programming IBC



Postsecondary Opportunities

Associates Degrees

- Computer Programming/Programmer General
- Computer Software Engineer
- Computer Science
- Certified Software Analyst

Bachelor's Degrees

- Management Information Systems, General
- Computer Software Engineer
- Computer Science
- Information Science/ Studies

Master's, Doctoral, and Professional Degrees

- Computer Software Engineer
- Computer Science
- Information Science/ Studies

Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Software Developer, Systems Software	\$103,334	2,985	25%
Software Developers, Application	\$104,499	6,311	30%
Computer Programmers	\$79,893	1,454	9%

Successful completion of the Programming and Software Development program of study will fulfill requirements of the Business and Industry endorsement and STEM endorsement if the math and science requirements are met. Revised – August 2022

Health Science Career Cluster

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

Diagnostics and Therapeutic Services Statewide Program of Study



The Healthcare Therapeutic program of study introduces students to occupations and educational opportunities related to diagnosing and treating acute, episodic, or chronic illness independently or as part of a healthcare team. This program of study also includes an introduction to the opportunities associated with providing treatment and counsel to patients as well as rehabilitative programs that help build or restore daily living skills to persons with disabilities or developmental delays.

Secondary Courses for High School Credit

Level 1

- Principles of Health Science

Level 2

- Medical Terminology

Level 3

- Anatomy and Physiology
- Health Science Theory/Clinical (Rotations)
- EKG/Phlebotomy
- Medical Microbiology

Level 4

- Pharmacology
- Practicum in Health Science/Certified Medical Assistant, Patient Care

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities

- Participate in SkillsUSA or Health Occupation Students of America

Work-Based Learning Activities

- Volunteer at a community wellness center, hospital, assisted living, or nursing home

Industry-Based Certifications

- Certified Clinical Medical Assistant
- Certified EKG Technician
- Patient Care Technician
- Pharmacy Technician
- Phlebotomy Technician

Postsecondary Opportunities

Associates Degrees

- Dental Hygienist
- Medical/Clinical Assistant

Bachelor's Degrees

- Dental Hygienist

Master's, Doctoral, and Professional Degrees

- Dentist
- Physician Assistant
- Family and General Practitioners
- Pharmacist



Aligned Occupations

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

Successful completion of the Healthcare Therapeutic program of study will fulfill requirements of a Public Service endorsement or STEM endorsement if the math and science requirements are met. Revised – August 2022