



COURSES

LEVEL 1

Principles of Business, Marketing, and Finance #8206

LEVEL 2

Money Matters #8307

LEVEL 3

Accounting I #8310

LEVEL 4

Securities and Investments #8315

AND/OR

Career Preparation I (3CR) #8009

POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
QuickBooks Certified User	Certified Management Accountant	Real Estate	Accounting	Financial Accounting
Microsoft Office Specialist or Expert - Excel	Certified Internal Auditor	Financial, General		Business Administration
Certified Insurance Service Representative	Certified Income Specialist	Financial Planning and Services		Financial Planning
	Certified Public Accountant	Certified Income Specialist		

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options
for this program of study, visit TXCTE.org.

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%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities:
Business Professionals
of America (BPA), Future
Business Leaders of
America (FBLA), and
DECA

**Work Based Learning
Activities:**
Internship with local
accounting firm;
Microsoft Office Specialist
(MOS) certifications

The Accounting and Financial Services program of study teaches CTE concentrators 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.

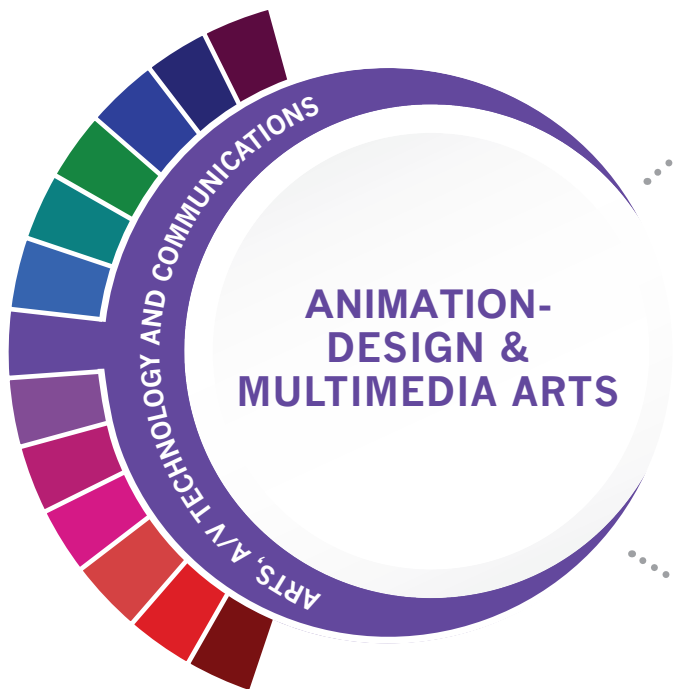


The Business, Marketing, and Finance Career Cluster® focuses on careers in planning, organizing, directing, and evaluating business functions essential to efficient and productive business operations.

Successful completion of the Accounting & Financial Services program of study will fulfill requirements of the Business and Industry Endorsement.
Approved Statewide Program of Study - September 2019



COURSES



LEVEL 1

Digital Media #8520

LEVEL 2

Animation I #8151

LEVEL 3

Animation II/Lab (2CR) #8152

LEVEL 4

Practicum in Animation (2CR) #8167

AND/OR

Career Preparation I (3CR) #8009

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Adobe Certified Associate Certifications	Certified Digital Designer	Animation, Interactive Technology, Video Graphics and Special Effects		
Adobe Certified Expert Certifications	WOW Certified Web Designer Apprentice	Graphic Design		
Apple Logic Pro X	Adobe Suite Certifications	Game and Interactive Media Design	Intermedia/ Multimedia	

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit TXCTE.org.

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Graphic Designers	\$44,824	1,433	15%
Multimedia Artists and Animators	\$67,392	186	21%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities:
Join a website development or coding club.
SkillsUSA, TSA

Work Based Learning Activities:
Intern with a multimedia or animation studio.
Obtain a certificate in graphic design.

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.



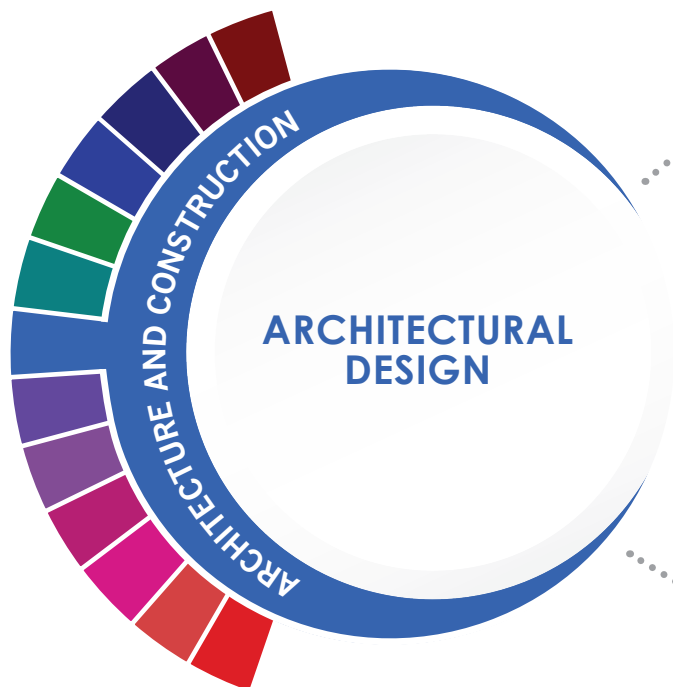
The Arts, A/V Technology and Communications (AAVTC) Career Cluster® focuses on careers in designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services. Careers in the AAVTC Career Cluster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

Successful completion of the Graphic Design & Multimedia Arts program of study will fulfill requirements of a Business and Industry Endorsement.

Approved Statewide Program of Study - September 2019



COURSES



LEVEL 1

Principles of Architecture #8098

LEVEL 2

Architectural Design I #8104

LEVEL 3

Architectural Design II (2CR) #8106

LEVEL 4

Practicum in Architectural Design (2CR) #8127

AND/OR

Career Preparation I (3CR) #8009

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Autodesk Certified Professional or User in AutoCAD	Certified Photogrammetric Technologist	Architecture		
Autodesk Certified Professional or User in AutoCAD Civil 3D	Certified Development, Design & Construction Professional	Interior Design		Interior Architecture
Autodesk Certified Professional or User in Autodesk Revit Architecture	National Council Certified Interior Designer	Civil Engineering, General		
Autodesk Certified Professional or User in Autodesk Revit MEP Electrical	LEED AP Building Design & Construction	Geographic Information Science and Cartography		
Additional industry based certification information is available from the TEA CTE website.				
For more information on postsecondary options for this program of study, visit TXCTE.org.				

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Architects	\$77,043	808	16%
Geographic Information Analysts and Surveyors	\$58,926	162	27%
Architectural/Civil Drafters	\$50,170	1,068	9%
Civil Engineers	\$89,960	2,394	12%
Construction Managers	\$87,402	2,401	14%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities:
Shadow an architect, interior designer, or civil engineer.
SkillsUSA

Work Based Learning Activities:
Intern at an architecture firm.

The Architectural Design program of study explores the occupations and educational opportunities associated with developing, engineering, and designing building structures and facilities. This program of study may also include exploration into collecting and interpreting geographic information, researching and preparing maps, and interior design.



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.

Successful completion of the Construction Design program of study will fulfill requirements of the Business and Industry Endorsement. Approved Statewide Program of Study - September 2019





COURSES

LEVEL 1

Principles of Transportation Systems #8759

LEVEL 2

Automotive Basics #8766

LEVEL 3

Automotive Technology I (2CR) #8752

LEVEL 4

Automotive Technology II/Lab (2CR) #8753

AND/OR

Career Preparation (3CR) #8009

POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Automotive Service Excellence (ASE) Entry Level	Master Collision Repair and Refinishing Technician	Autobody/ Collision and Repair Technology/ Technician		Mechanical Engineering
Automotive Service Excellence (ASE) Professional Level	Automobile Technician: various systems and parts	Medium/Heavy Vehicle and Truck Technology/ Technician		
	Engine Machinist Technician	Mechanical Engineering/ Mechanical Technology/ Technician		
	Collision Repair and Refinish			

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit TXCTE.org.

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Automotive Body and Related Repairers	\$40,144	1,456	25%
Automotive Service Technician and Mechanics	\$38,459	208	25%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities:
SkillsUSA competition
Automotive Service Association

Work Based Learning Activities:
Work at a local automotive repair or body shop.

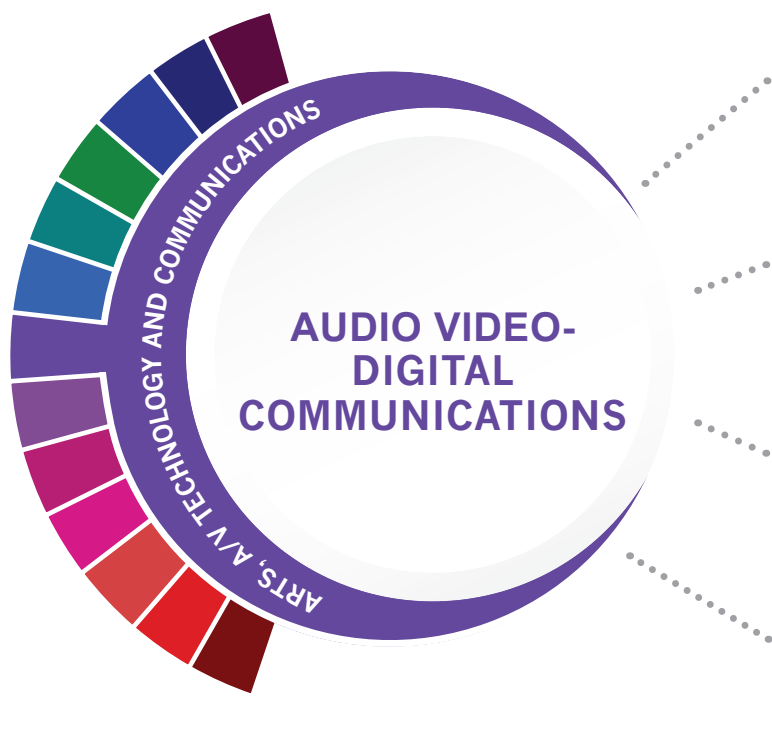
The Automotive program of study teaches students how to repair and refinish automobiles and service various types of vehicles. Students may learn to collect payment for services or supplies and perform typical vehicle maintenance procedures such as lubrication, oil changes, installation of antifreeze,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



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.

Successful completion of the Automotive program of study will fulfill requirements of the Business and Industry Endorsement.
Approved Statewide Program of Study - September 2019





COURSES

LEVEL 1

Principles of Arts, A/V Technology, and Communications #8176

LEVEL 2

Audio/Video Production I #8153

LEVEL 3

Audio Video Production II/Lab (2CR) #8154

LEVEL 4

Practicum of Audio/Video Production (2CR) #8149

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Apple Final Cut Pro X	Certified Video Engineer	Recording Arts Technology/Technician		Communications Technology/Technician
Apple Logic Pro X	Commercial Audio Technician	Cinematography and Film/Video Production		
Adobe Certified Associate Premiere Pro	Certified AM Directional Specialist	Radio and Television Broadcasting Technology/Technician	Radio and Television	
Adobe Certified Associate Certifications	Certified Broadcast Radio Engineer	Music Technology	Agricultural Communication/Journalism	
Additional industry based certification information is available from the TEA CTE website.				
For more information on postsecondary options for this program of study, visit TXCTE.org.				

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%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities:
Shadow a production team
SkillsUSA, TSA

Work Based Learning Activities:
Intern at a local television station or video production company

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.



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.

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

Approved Statewide Program of Study - September 2019

COURSES

Principles of Business, Marketing, and Finance #8206

LEVEL 1

Business Information Management I #8216

LEVEL 2

Business Management #8227

LEVEL 3

Practicum in Business Management (2CR) #8229

OR

Career Preparation I (3CR) #8009

LEVEL 4

BUSINESS MANAGEMENT

BUSINESS, MARKETING, AND FINANCE

POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Microsoft Office Specialist or Expert - Excel	Certified Records Manager	Business Administration		
Microsoft Office Specialist or Expert - Word	Certified Facility Manager	Business/ Commerce		Business Management
Google Cloud Certified Professional - G-Suite	Certified Commercial Contracts Manager	Public Administration		
Certified Associate in Project Management	Teradata 14 Basics/ Certified Technical Specialist	Business Management	Management Science	

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit TXCTE.org.

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%
Operations Research Analysts	\$78,083	1,128	38%
Supervisors of Administrative Support Workers	\$57,616	14,982	20%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities: Business Professionals of America (BPA), Future Business Leaders of America (FBLA), and DECA

Work Based Learning Activities: Internship with local business or chamber of commerce;

The Business Management program of study teaches CTE concentrators 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.



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.

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

Approved Statewide Program of Study - September 2019





COURSES

LEVEL 1

Principles of Transportation Systems #8759

LEVEL 2

Basic Collision Repair and Refinishing #8765

LEVEL 3

Collision Repair (2CR) #8754

LEVEL 4

Paint and Refinishing (2CR) #8756

AND/OR

Career Preparation I (3CR) #8009

POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Automotive Service Excellence (ASE) Entry Level	Master Collision Repair and Refinishing Technician	Autobody/ Collision and Repair Technology/ Technician		Mechanical Engineering
Automotive Service Excellence (ASE) Professional Level	Automobile Technician: various systems and parts	Medium/Heavy Vehicle and Truck Technology/ Technician		
	Engine Machinist Technician	Mechanical Engineering/ Mechanical Technology/ Technician		
	Collision Repair and Refinish			

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit TXCTE.org.

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Automotive Body and Related Repairers	\$40,144	1,456	25%
Automotive Service Technician and Mechanics	\$38,459	208	25%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities:
SkillsUSA competition
Automotive Service Association

Work Based Learning Activities:
Work at a local automotive repair or body shop.

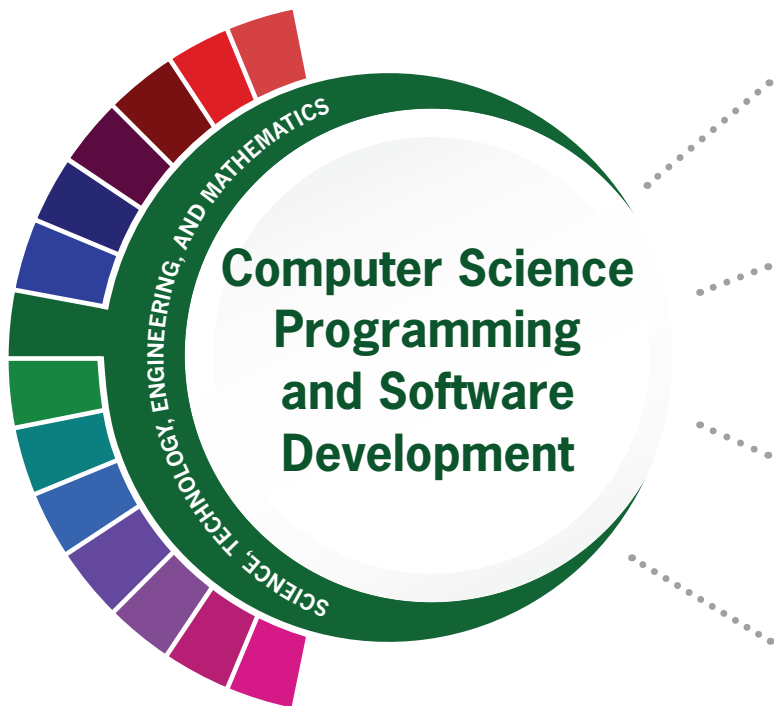
The Automotive program of study teaches students how to repair and refinish automobiles and service various types of vehicles. Students may learn to collect payment for services or supplies and perform typical vehicle maintenance procedures such as lubrication, oil changes, installation of antifreeze,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



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.

Successful completion of the Automotive program of study will fulfill requirements of the Business and Industry Endorsement.
Approved Statewide Program of Study - September 2019





COURSES

AP Computer Science Principles #7104

OR

Onramps Computer Science #7320

Computer Science I Pre-AP #7110

LEVEL 1

LEVEL 2

AP Computer Science A 1 (2CR) #7214 & #5970

OR

Computer Science 2 H #7210

Computer Science 3 H/DC #7310

LEVEL 3

LEVEL 4

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Oracle Certified Association JAVA SE 8 Programmer	Certified Computing Professional	Computer Programming/Pro grammer General	Mangement Information Systems, General	
Oracle Certified Database Associate	Cloud Technology Associate Certification	Computer Software Engineer		
	AEM 6 Developer	Computer Science		
	Certified Software Analyst	Information Science/Studies		
* Includes Level I and Level II Certificates				
For more information on postsecondary options for this programs of study, visit TXCTE.org				

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Computer Network Architect	\$111, 633	1,454	9%
Software Developer, Systems Software	\$103, 334	2985	25%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities:

Join TSA
Participate in a coding club
at school.

Work Based Learning Activities:

Obtain an industry based
certification.

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



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.

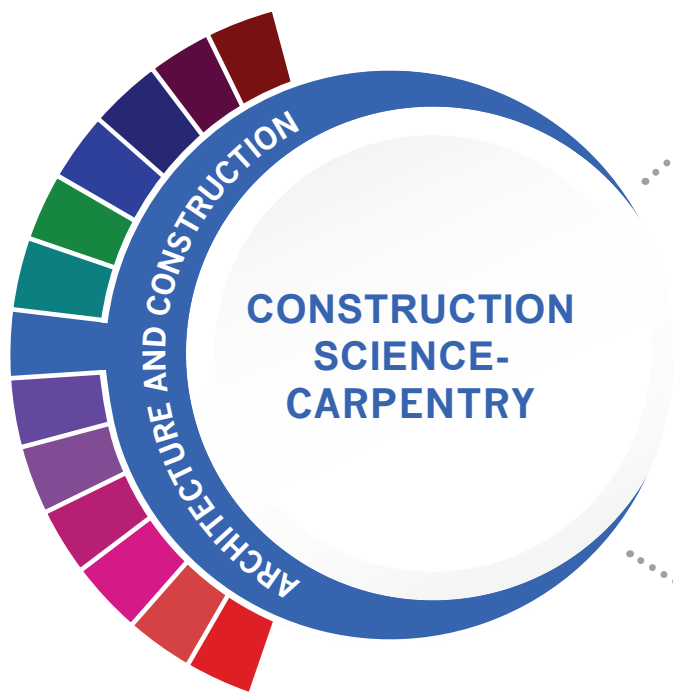
Successful completion of the Programming and Software Development program of study will fulfill requirements of a Business and Industry or STEM Endorsement.

September 2019

Approved Statewide Program of Study -



COURSES



LEVEL 1

Principles of Construction #8099

LEVEL 2

Construction Science (Principles of Architecture) #8139

LEVEL 3

Construction Technology I (2CR) #8111

LEVEL 4

Construction Technology II (2CR) #8112

AND/OR

Career Preparation I (3CR) #8009

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
NCCER Carpentry, Level 1 & 2	Certified Lead Carpenter	Carpentry/ Carpenter	Construction Science	Construction Management
NCCER Commercial Carpenter	Certified Installer	Industrial Mechanics and Maintenance Technology		
NCCER Core Curriculum	Certified Door Consultant			
NCCER Construction Technology	Fluid Power Connector and Conductor			

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit TXCTE.org.

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Carpenters	\$35,922	5,031	26%
Cost Estimators	\$63,939	2,239	21%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities:
Shadow a carpenter or millwright.
SkillUSA

Work Based Learning Activities:
Obtain an NCCER certification in Millwright Level 1 or Carpentry Level 1.

The Carpentry program of study explores the occupations and educational opportunities related to constructing, installing, or repairing structures and fixtures made of wood, such as concrete forms (including frameworks, partitions, joists, studding, rafters, and stairways). This program of study may also include exploration into installing, dismantling, or moving machinery and heavy equipment according to layout plans, blueprints, or other drawings.



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.

Successful completion of the Carpentry program of study will fulfill requirements of the Business and Industry Endorsement. Approved Statewide Program of Study - September 2019



COURSES



LEVEL 1

No Course(s) offered at this level

LEVEL 2

No Course(s) offered at this level

LEVEL 3

Introduction to Cosmetology #8469

AND

Cosmetology I (2CR) #8470

LEVEL 4

Principles of Cosmetology Design and Color Theory #8472

AND

Cosmetology II (2CR) #8471

POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Cosmetology Operator License	Certified Aesthetic Laser Operator	Cosmetology/ Cosmetologist, General		
Cosmetology Esthetician Specialty License	Cosmetologist	Aesthetician/ Esthetician and Skin Care Specialist		
Cosmetology Manicurist Specialty License	Certified Spa Supervisor	Salon/Beauty Salon Management/ Manager		

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit TXCTE.org.

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Hairstylist, Hairdressers, and Cosmetologists	\$22,593	585	16%
Manicurists & Pedicurists	\$26,578	116	19%
First-Line Supervisors of Personal Service	\$44,721	N/A	22%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities:
American Association of Family and Consumer Sciences

Career Prep Activities:
Job shadow a cosmetologist
Work part-time at a beauty salon, spa, or barbershop

The Cosmetology and Personal Care Services program of study introduces students 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.



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.

Successful completion of the Cosmetology and Personal Care Services program of study will fulfill requirements of the Public Service Endorsement.

Program of Study Draft for Public Comment June 2019





COURSES

Introduction to Culinary Arts #8422

LEVEL 1

Culinary Arts (2CR) #8420

LEVEL 2

Advanced Culinary Arts (2CR) #8424
(Prereq: Culinary Arts)

LEVEL 3

Practicum in Culinary Arts (2CR) #8421 (Prereq: Culinary Arts)

LEVEL 4

AND/OR

Food Science #8430

OR

Career Preparation I (3CR) #8009

POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Certified Fundamentals Cook	Certified Chef	Hotel and Restaurant Management		
Certified Fundamentals Pastry Cook	Foodservice Management Professional	Restaurant Culinary and Catering Management	Food Service Systems Administration/Management	
ServSafe Manager	Comprehensive Food Safety	Hospitality Administration/Management, General		
ManageFirst Professional	Certified Food and Beverage Executive	Culinary Arts/ Chef Training	Culinary Science and Food Service Management	Business Administration Management, General

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit TXCTE.org.

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Food Service Managers	\$55,619	1,561	28%
Chef and Head Cooks	\$43,285	1,366	25%
Food Science Technicians	\$34,382	236	11%
Food and Beverage Managers	\$55,619	1,561	28%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities: **Work Based Learning Activities:**

Family, Career, Community Leaders of America (FCCLA), SkillsUSA, American Culinary Federation, Texas Restaurant Association

Plan a catering event or work for a catering company; participate in a cooking course; work in a restaurant; cook at home

The Culinary Arts program of study introduces students to occupations and educational opportunities related to the planning, directing, or coordinating activities of a food and beverage organization or department. This program of study also explores opportunities involved in directing and participating in the preparation and cooking of food.



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

Successful completion of the Culinary Arts program of study will fulfill requirements of the Business and Industry Endorsement. Approved Statewide Program of Study - September 2019





COURSES

LEVEL 1

Principles of Information Technology #8500

LEVEL 2

Foundations of Cybersecurity #8546

LEVEL 3

Networking #8542

LEVEL 4

Cybersecurity Capstone #8547

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Oracle Certified Associate Java SE 8	GIAC Reverse Engineering Malware	System Networking, and LAN/WAN Management	Computer Systems Networking and Telecommunications	Computer Systems Analysis/Analyst
Oracle Certified Database Associate	Certified Advanced Windows Forensic Examiner	Information Technology	Computer Systems Networking and Telecommunications	Information Technology
Cisco Certified Entry Networking Technician (CCENT)	SAP Certified Technology Professional System Security Architect	Computer and Information Sciences, General		
Associate of (ISC)2	Cisco Certified Network Professional Security Certification	Computer Science		

Additional industry based certification information is available from the TEA CTE Website

For more information on postsecondary options for this program of study, visit TXCTE.org.

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Information Security Analysts	\$91,915	814	29%
Network and Computer System Administrators	\$82,597	2,814	19%
Computer Systems Analyst	\$87,568	5,937	29%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities:

Join TSA
Job shadow a computer system analyst or information security analyst.

Work Based Learning Activities:

Obtain an industry based certification.

The Cybersecurity program of study includes the occupations and educational opportunities related to planning, implementing, upgrading, or monitoring security measure for the protection of computer networks and information. This program of study may also include exploration into responding to computer security breaches and virus and administering network security measures.



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.

Successful completion of the Cybersecurity program of study will fulfill requirements of a Business and Industry or STEM Endorsement.
Approved Statewide Program of Study - September 2019





COURSES

LEVEL 1

Principles of Human Services #8450
Principles of Human Services (Middle School) #8459

LEVEL 2

Child Development #8462

LEVEL 3

Child Guidance (2CR) #8461

LEVEL 4

Practicum in Early Learning (2CR) #8464
Practicum in Human Services (2CR) #8458
AND/OR
Career Preparation I (3CR) #8009

POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Child Development Associate		Early Childhood Education and Teaching		
Educational Aide I	Texas Educator Certification Program	Multicultural Early Childhood Development		
	County Librarian	Kindergarten/ Preschool Education and Training	Early Childhood	Educational, Instructional, and Curriculum Supervision
	Professional Counselor	Psychology/Sociology		Educational Leadership and Administration
Additional industry based certification information is available from the TEA CTE website.				
For more information on postsecondary options for this program of study, visit TXCTE.org				

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Kindergarten Teachers, except Special Education	\$53,310	1,848	17%
Preschool Teachers	\$27,851	4,330	17%
Special Education Teachers, Preschool	\$55,670	148	27%
Elementary School Teachers	\$54,140	13,121	16%
Education Administrators, Elementary and Secondary School	\$79,830	2,407	16%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities:

Texas Association of
Future Educators; Family,
Career, & Community
Leaders of America

Work Based Learning Activities:

Teach a community
education class;
volunteer as a teaching
assistant.

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 concentrators to tasks necessary for planning, directing, and coordinating activities for young children.



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.

Successful completion of the Early Learning program of study will satisfy the requirements for the Public Service Endorsement.
Approved Statewide Program of Study - September 2019

COURSES



LEVEL 1

Principles of Law, Public Safety, Corrections, and Security #8550

LEVEL 2

Disaster Response #8562

LEVEL 3

Anatomy and Physiology #8380

LEVEL 4

Emergency Medical Technician - Basic (2CR) #8563

POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Emergency Medical Technician - Basic		Emergency Medical Technology/Technician (EMT Paramedic)		
Emergency Telecommunicator	Fire Protection Personnel/ Firefighter	Fire Prevention and Safety Technology/ Technician	Natural Resources Law Enforcement and Protective Services	
Basic Structure Fire Protection Certification	Fire Protection System Contractor	Fire Science/ Fire-fighting		
	Fire Inspector			

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit TXCTE.org.

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%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities:

Attend local emergency awareness events; Texas Public Service Association

Work Based Learning Activities:

Volunteer at a hospital or a fire station

The Emergency Services program of study focuses on training students to respond to emergency situations, namely medical emergencies and fire-based emergencies. Students may 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.



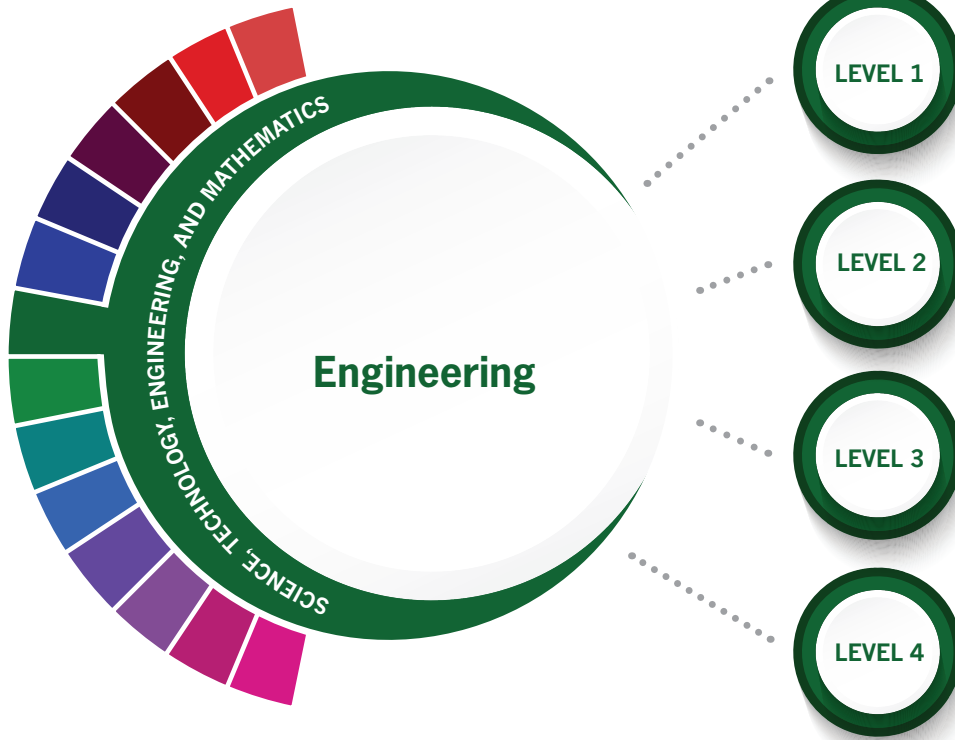
The Law and Public Service Career Cluster® focuses on planning, managing, and providing legal services, public safety, protective services, and homeland security, including professional and technical support services. Students will examine the roles and responsibilities of police, courts, corrections,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

Successful completion of the Emergency Services program of study will fulfill requirements of the Public Service Endorsement. Approved Statewide Program of Study - September 2019



STEM Endorsement

COURSES



LEVEL 1

Principles of Applied Engineering #8700
Principles of Applied Engineering (Middle School) #8729

LEVEL 2

Manufacturing Engineering Technology I #8721

LEVEL 3

Engineering Design and Presentation I #8701

LEVEL 4

Engineering Design and Presentation II (2CR) #8702

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Autodesk Certified Professional or User (ACU) - Inventor	Engineer, Professional	Electrical and Electronics Engineering	Electrical and Electronics Engineering	Electrical and Electronics Engineering
Certified SolidWorks Associate (CSWA)	Fluid Power Systems Designer	Drafting and Design Technology/ Technician, General	CAD/CADD Drafting and/or Design Technology/ Technician	Mechanical Engineering
Certified Engineering Technician - Audio Systems	Certified Biomedical Auditor	Engineering Technology	Bioengineering and Biomedical Engineering	Bioengineering and Biomedical Engineering
	Certified Cost Estimator/ Analyst		Construction Engineering Technology/ Technician	

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit TXCTE.org.

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Aerospace Engineers	\$110,843	481	9%
Industrial Engineers	\$97,074	1,263	10%
Mechanical Engineers	\$91,707	1,535	11%
Chemical Engineers	\$112,819	474	9%
Electrical Engineers	\$98,405	1,137	10%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities:
Participate in competitions like Skills USA

Career Preparation Activities:
Engineering internship
Job shadow a machinist

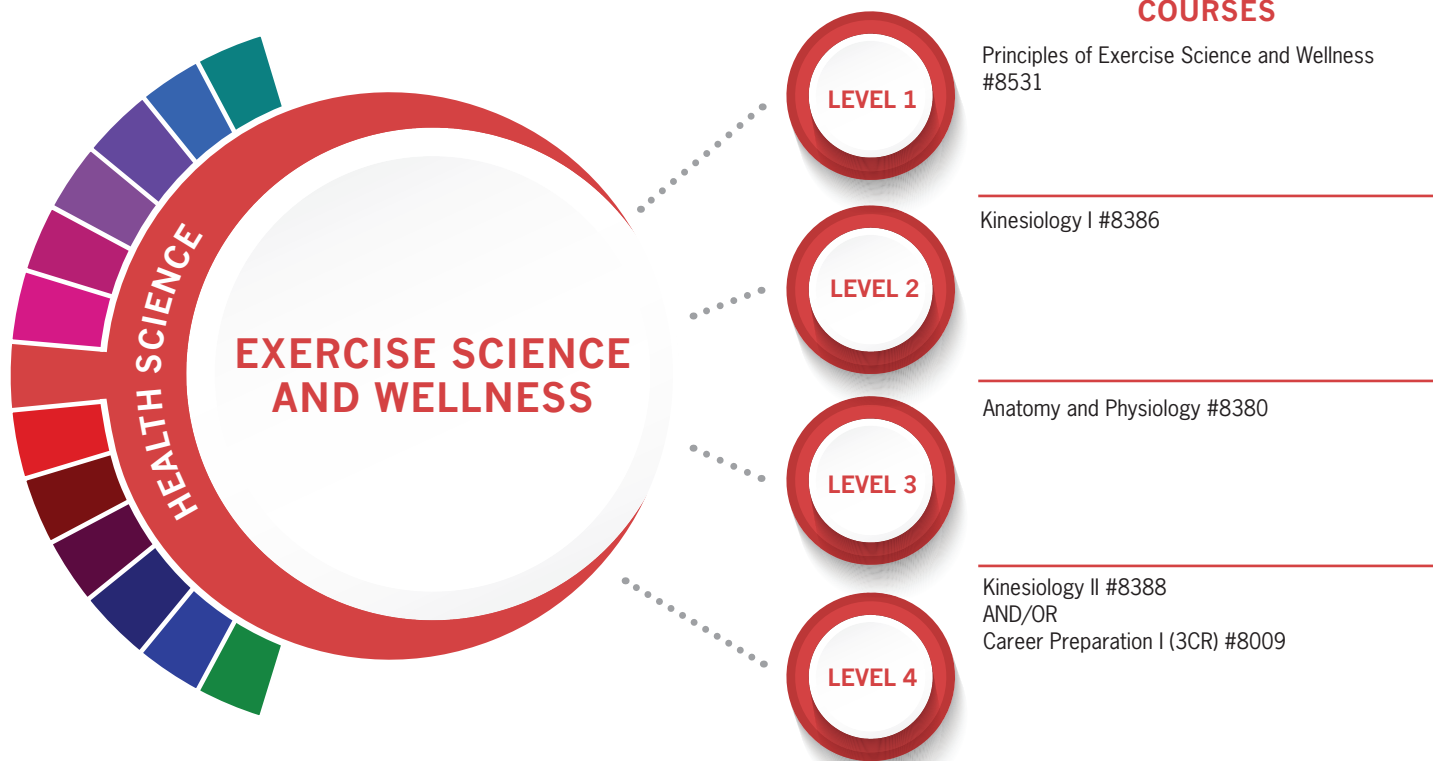
The Engineering program of study focuses on the design, development, and use of engines, machines, and structures. Students will learn how to apply science, mathematical methods, and empirical evidence to the innovation, design, construction, operation, and maintenance of different manufacturing systems.



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.

Successful completion of the Engineering program of study will fulfill requirements of the Business and Industry or STEM Endorsement.
Approved Statewide Program of Study - September 2019





POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Certified Personal Trainer	Physical Therapist Assistant	Kinesiology and Exercise Science		Exercise Physiology
	Physical Therapy Aides	Therapeutic Recreation/ Recreational Therapy		
	Dietetic Technician	Athletic Training/ Trainer		
			Dietitians and Nutritionists	Physical Therapist

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit TXCTE.org.

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Athletic Trainers	\$53,450	215	22%
Exercise Physiologists	\$41,662	33	33%
Coaches and Scouts	\$40,010	2,133	23%
Medical and Health Service Managers	\$57,762	428	24%
Recreational Therapists	\$45,906	74	24%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities:
Health Occupation Students of America (HOSA)

Work Based Learning Activities:
Volunteer at a hospital or rehabilitation center; manage a school sports team

The Exercise Science and Wellness program of study introduces students to the fields that assist patients with maintaining physical, mental, and emotional health. Students will research diet and exercise needed to maintain a healthy, balanced lifestyle and learn about and practice techniques to help patients recover from injury, illness, or disease.



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.

Successful completion of the Exercise Science and Wellness program of study will fulfill requirements of the Public Service Endorsement.
Approved Statewide Program of Study - September 2019



COURSES



LEVEL 1

Fashion Design I #8160

LEVEL 2

Fashion Design II (2CR) #8161 (Prereq: Fashion Design I)

LEVEL 3

Practicum in Entrepreneurship – Fashion (2CR) #8169
(Not available at this time)

Practicum in Human Services - Fashion (2CR)
#8169
(Elective only)

LEVEL 4

Practicum in Entrepreneurship II – Fashion (2CR) #8170
(Not available at this time)

AND/OR

Career Preparation I (3CR) #8009

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Adobe Certified Associate Certifications	Certified Digital Designer	Animation, Interactive Technology, Video Graphics and Special Effects		
Adobe Certified Expert Certifications	WOW Certified Web Designer Apprentice	Graphic Design		
Apple Logic Pro X	Adobe Suite Certifications	Game and Interactive Media Design	Intermedia/ Multimedia	
Additional industry based certification information is available from the TEA CTE website.				
For more information on postsecondary options for this program of study, visit TXCTE.org.				

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Graphic Designers	\$44,824	1,433	15%
Multimedia Artists and Animators	\$67,392	186	21%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities:
Join a website development or coding club.
SkillsUSA, TSA

Work Based Learning Activities:
Intern with a multimedia or animation studio.
Obtain a certificate in graphic design.

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.



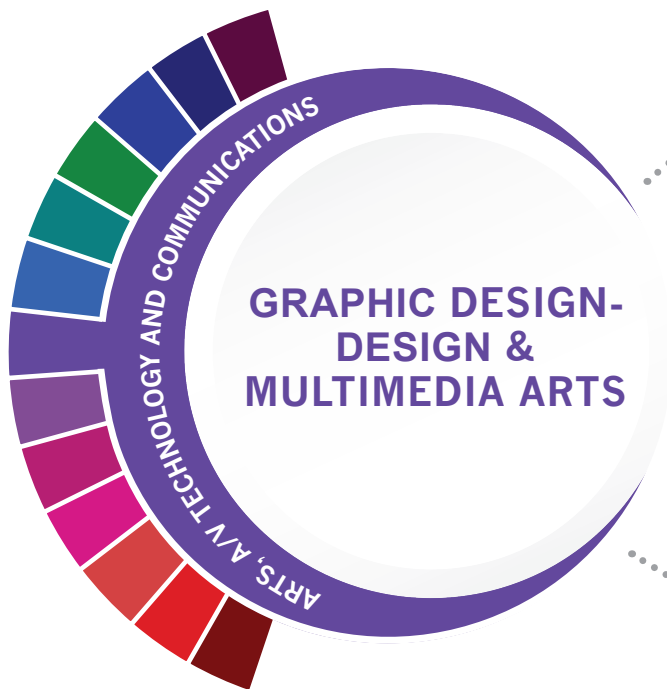
The Arts, A/V Technology and Communications (AAVTC) Career Cluster® focuses on careers in designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services. Careers in the AAVTC Career Cluster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

Successful completion of the Graphic Design & Multimedia Arts program of study will fulfill requirements of a Business and Industry Endorsement.

Approved Statewide Program of Study - September 2019



COURSES



LEVEL 1

Digital Media #8520

LEVEL 2

Graphic Design and Illustration I #8155

LEVEL 3

Graphic Design and Illustration II/Lab (2CR) #8156

LEVEL 4

Practicum in Graphic Design and Illustration (2CR) #8157

AND/OR

Career Preparation I (3CR) #8009

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Adobe Certified Associate Certifications	Certified Digital Designer	Animation, Interactive Technology, Video Graphics and Special Effects		
Adobe Certified Expert Certifications	WOW Certified Web Designer Apprentice	Graphic Design		
Apple Logic Pro X	Adobe Suite Certifications	Game and Interactive Media Design	Intermedia/ Multimedia	

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit TXCTE.org.

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Graphic Designers	\$44,824	1,433	15%
Multimedia Artists and Animators	\$67,392	186	21%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities:
Join a website development or coding club.
SkillsUSA, TSA

Work Based Learning Activities:
Intern with a multimedia or animation studio.
Obtain a certificate in graphic design.

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.



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.

Successful completion of the Graphic Design & Multimedia Arts program of study will fulfill requirements of a Business and Industry Endorsement.

Approved Statewide Program of Study - September 2019



COURSES



LEVEL 1

Principles of Human Services #8450
Principles of Human Services (Middle School) #8459

LEVEL 2

Lifetime Nutrition and Wellness (.5CR) #8448
AND
Interpersonal Studies (.5CR) #8452

LEVEL 3

Applied Nutrition and Dietetics #8449
(Course offered starting 2021-2022)

LEVEL 4

Practicum in Human Services (2CR) #8458
AND/OR
Career Preparation I (3CR) #8009

POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Community Health Worker	Registered Dietitian	Nutrition Sciences		
Entrepreneurship and Small Business	Counselor, Professional	Community Health Services/ Liaison/ Counseling	Mental Health Counseling/ Counselor	Community Health and Preventative Medicine
	Registered Dietitian Nutritionist	Health and Wellness, General	Nutrition	
	Social Worker	Public Health	Human Nutrition and Foods	Exercise and Sports Nutrition

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit TXCTE.org.

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Community Health Workers	\$38,064	592	25%
Substance Abuse and Behavior Disorder Counselors	\$37,024	614	35%
Mental Health Counselors	\$41,558	812	38%
Health Care Social Workers	\$55,515	1,583	35%
Rehabilitation Counselors	\$43,930	586	23%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities:
American Association of Family and Consumer Sciences; Family, Career and Community Leaders of America

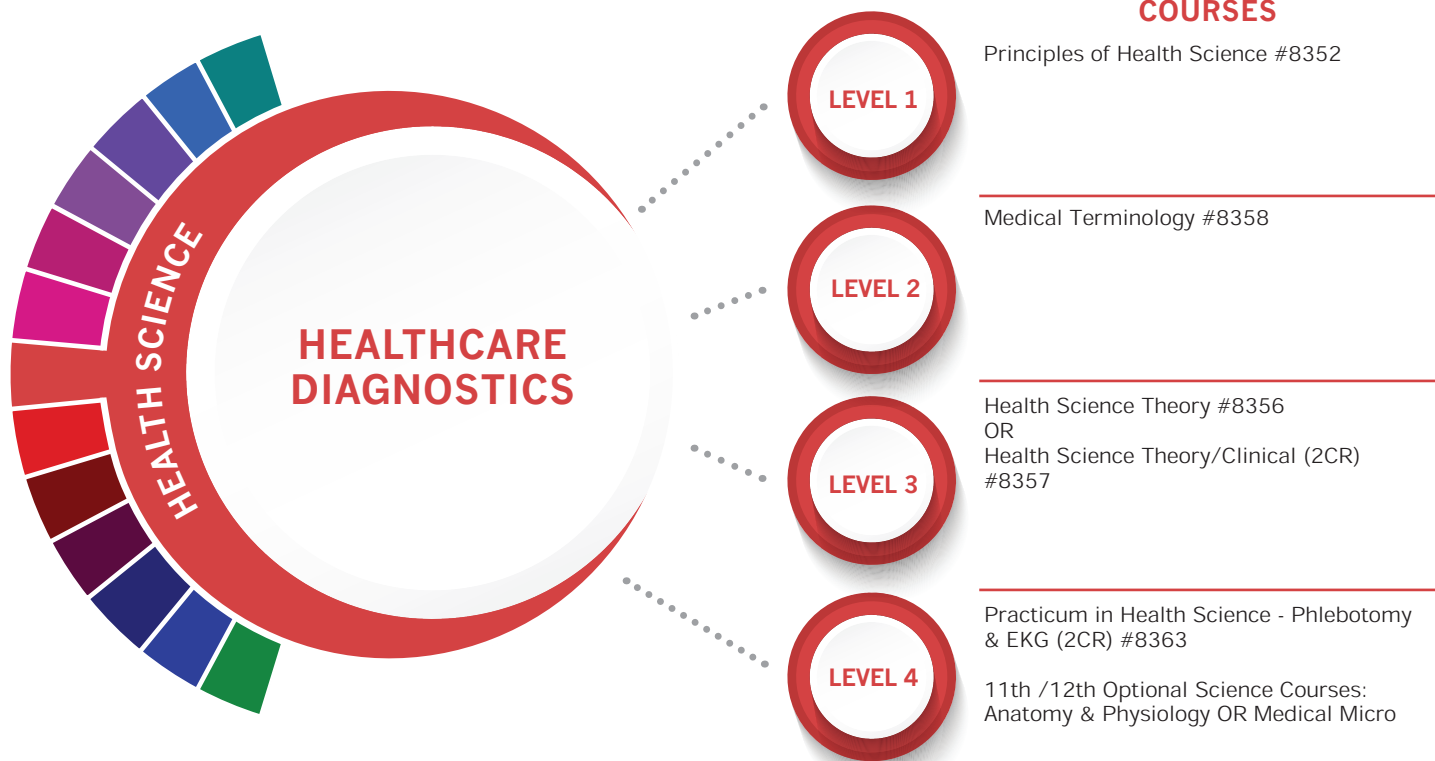
Work Based Learning Activities:
Job shadow a dietitian or nutritionist; work part-time at a counseling services center

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 concentrators may also focus on addressing barriers to access health and wellness services.



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.

Successful completion of the Health and Wellness program of study will fulfill requirements of the Public Service Endorsement. Approved Statewide Program of Study - September 2019



POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE S DEGREE	BACHELOR S DEGREE	MASTER S/ DOCTORAL PROFESSIONAL DEGREE
Limited Licensed Radiology Technologist	Medical Sonographer	Nuclear Medical Technology/ Technologist		Radiologist
EKG/ ECG Technician	Radiologic Technologist	Magnetic Resonance Imaging (MRI) Technology/ Technician	Medical Radiologic Technology/ Science Radiation Therapist	Radiologic Technology/ Science - Radiographer
Medical Laboratory Technician				
Phlebotomy Technician				

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit TXCTE.org.

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Diagnostic Medical Sonographers	\$69,909	495	35%
Phlebotomists	\$30,597	1,442	36%
Nuclear Medicine Technologists	\$75,962	91	13%
Radiologic Technologists	\$55,494	1,196	19%
Magnetic Resonance Imaging Technologists	\$68,661	217	21%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities:
Health Occupation
Students of America
(HOSA)

Work Based Learning Activities:
Clinical rotations at a
community wellness
center, hospital, assisted
living, nursing home

The Healthcare Diagnostics program of study introduces students to occupations and educational opportunities related to performing complex medical laboratory tests for the diagnosis, treatment, and prevention of disease. This program of study may also include exploration into the opportunities associated with blood laboratories as well as radiologic technology, and ultrasonic technology.



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.

Successful completion of the Healthcare Diagnostics program of study will fulfill requirements of the Public Service Endorsement.
Approved Statewide Program of Study - September 2019



COURSES

Principles of Health Science #8352

LEVEL 1

Medical Terminology #8358

LEVEL 2

Health Science Theory #8356 OR
Health Science Theory/Clinical (2CR)
#8357

LEVEL 3

11th /12th Optional Science Courses:
Anatomy & Physiology OR Medical Micro

LEVEL 4

Practicum in Health Science - Medical
Assistant (2CR) #8373 OR
Practicum in Health Science - Patient Care
Technician (2CR) #8369 OR
Pharmacology #8350

POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Registered Dental Assistant	Dental Assistant	Dental Hygienist		Dentist
Certified Patient Care Technician	Surgical Technologist			Physician Assistant
Certified Nurse Aide/Assistant	Medical Assistant	Medical/ Clinical Assistant		Family and General Practitioners
Pharmacy Technician	Pharmacy Aides			Pharmacist

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit TXCTE.org.

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Medical Assistants	\$29,598	8,862	30%
Surgical Technologists	\$46,310	1,150	21%
Dental Hygienists	\$73,507	1,353	38%
Physicians and Surgeons	\$213,071	1,151	30%
Dental Assistants	\$34,840	4,422	31%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities:

SkillsUSA
Health Occupation
Students of America
(HOSA)

Work Based Learning Activities:

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

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.

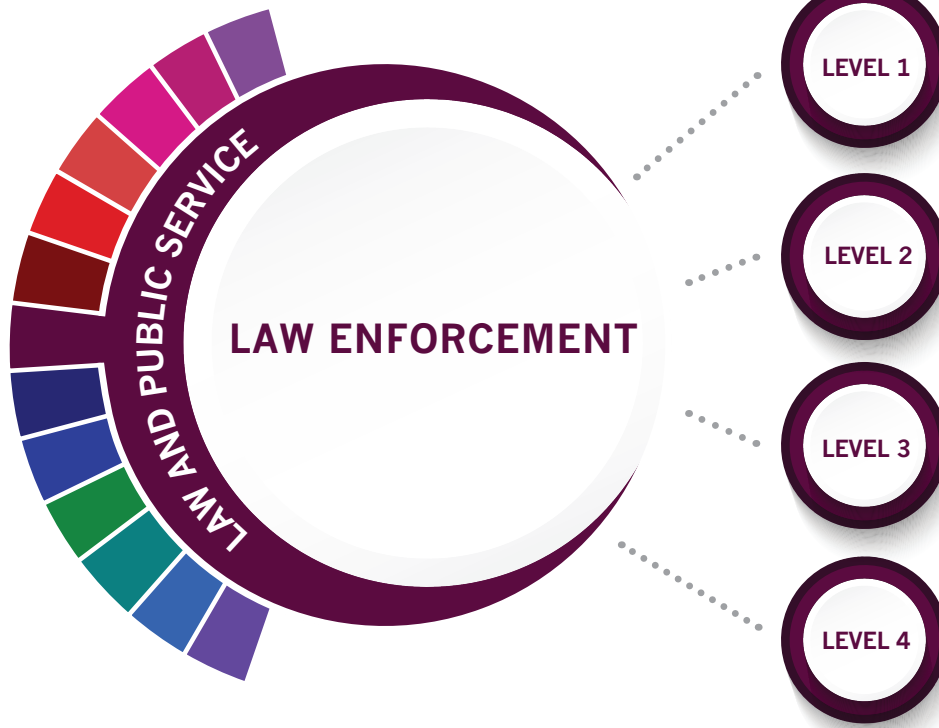


The Health Science Career Cluster® focuses on planning, managing, and providing therapeutic services, diagnostics services, health informatics, support services, and biotechnology research and development. To pursue a career in the health science industry, students should learn to reason, think critically,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

Successful completion of the Healthcare Therapeutic program of study will fulfill requirements of the Public Service Endorsement.
Approved Statewide Program of Study - September 2019



COURSES



LEVEL 1
Principles of Law, Public Safety, Corrections, and Security #8550

LEVEL 2
Criminal Investigations #8554

LEVEL 3
Law Enforcement I #8552
11th/12th grade Science option:
Forensic Science #8553

LEVEL 4
Law Enforcement II #8556

POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Non-Commissioned Security Officer Level II	Law Enforcement Officer	Criminal Justice/Safety Studies/Law Enforcement Administration		
	Private Investigator/Security Guard	Criminal Justice/ Police Science		
	Code Enforcement Officer	Corrections	Juvenile Corrections	
	Certified Law Enforcement Planner	Criminalistics and Criminal Science	Cyber/ Computer Forensics and Counterterrorism	Natural Resources Law Enforcement and Protective Services

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit TXCTE.org.

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%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities:
Texas Public Service Association;
criminal justice clubs

Work Based Learning Activities:
Attend court hearings and other legal procedures.

The Law Enforcement program of study teaches students about the development of, adherence to, and protection of various branches of law. Students may 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.



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 protective agencies of fire and emergency services.

Successful completion of the Law Enforcement, Investigations, Security, and Corrections program of study will fulfill requirements of the Public Service Endorsement.
Approved Statewide Program of Study - September 2019



COURSES



LEVEL 1

Digital Media #8520

LEVEL 2

Commercial Photography I #8158

LEVEL 3

Commercial Photography II/Lab (2CR) #8159

LEVEL 4

Practicum in Commercial Photography (2CR) #8168

AND/OR

Career Preparation I (3CR) #8009

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Adobe Certified Associate Certifications	Certified Digital Designer	Animation, Interactive Technology, Video Graphics and Special Effects		
Adobe Certified Expert Certifications	WOW Certified Web Designer Apprentice	Graphic Design		
Apple Logic Pro X	Adobe Suite Certifications	Game and Interactive Media Design	Intermedia/ Multimedia	
Additional industry based certification information is available from the TEA CTE website.				
For more information on postsecondary options for this program of study, visit TXCTE.org.				

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Graphic Designers	\$44,824	1,433	15%
Multimedia Artists and Animators	\$67,392	186	21%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities:
Join a website development or coding club.
SkillsUSA, TSA

Work Based Learning Activities:
Intern with a multimedia or animation studio.
Obtain a certificate in graphic design.

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.



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.

Successful completion of the Graphic Design & Multimedia Arts program of study will fulfill requirements of a Business and Industry Endorsement.

Approved Statewide Program of Study - September 2019



COURSES

LEVEL 1	Principles of Applied Engineering #8700 Principles of Applied Engineering (Middle School) #8729
LEVEL 2	Manufacturing Engineering Technology I #8721
LEVEL 3	Robotics I #8710
LEVEL 4	Robotics II #8730 AND/OR Career Preparation I (3CR) #8009

ROBOTICS- ADVANCED MANUFACTURING AND MACHINERY MECHANICS

POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
FANUC Robot Operator 1	Engineer, Professional	Electro-mechanical Engineering/Technology	Electrical Engineering	
Mastercam Associate Level Certification	PMI Mechatronics: Programmable Logic Controllers 1	Robotics Technology/Technician	Engineering, General	
NCCER Industrial Maintenance Mechanic	Certified Quality Technician	Instrumentation Technology/Technician	Industrial Engineering	
NIMS Industrial Technology Maintenance - Maintenance Operations	Plant Maintenance Technologist	Industrial Mechanics and Maintenance Technology	Mechanical Engineering	

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit TXCTE.org.

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Electro-Mechanical Assemblers	\$30,160	951	9%
Electro-Mechanical Technicians	\$56,555	127	9%
Industrial Machinery Mechanics	\$49,816	3,788	27%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities:
Participate in SkillsUSA and local STEM events

Work Based Learning Activities:
Apprenticeship at a local business or industry
American Welding Society

The Advanced Manufacturing and Machinery Mechanics program of study focuses on the assembly, operation, maintenance, and repair of electromechanical equipment or devices. Students may work in a variety of mechanical fields, gaining knowledge and experience in robotics, refinery and pipeline systems, deep ocean exploration, or hazardous waste removal. CTE concentrators may work in a variety of fields of engineering.



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.

Successful completion of the Advanced Manufacturing and Machinery Mechanics program of study will fulfill requirements of the Business and Industry Endorsement.



COURSES

Principles of Human Services #8450
Principles of Human Services (Middle School) #8459

LEVEL 1

Child Development #8462

LEVEL 2

Instructional Practices (2CR) #8252

LEVEL 3

Practicum in Education and Training (2CR)
#8253 (Prereq: Instructional Practices)

LEVEL 4

AND/OR

Career Preparation I #8009

POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Educational Aide I	Texas Educator Certification Program	Teacher Education	Bilingual and Multilingual Education	Instruction and Learning
	Educational Instructional Technology	Education, General (or specific subject area)		Educational Leadership and Administration, General
	Counselor, Professional	Special Education		
	Athletic Trainer	Health and Physical Education/Fitness	Social and Philosophical Foundations of Education	

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit TXCTE.org.

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%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities:
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.

The Teaching and Training program of study prepares students for careers related to teaching, instruction, and creation of instructional and enrichment materials. The program of study introduces CTE concentrators 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.



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.

Successful completion of the Teaching and Training program of study will fulfill requirements of the Public Service Endorsement.
Approved Statewide Program of Study - September 2019





COURSES

LEVEL 1

Principles of Information Technology #8500

LEVEL 2

Web Design #8526

LEVEL 3

Web Game Development #8519

LEVEL 4

Practicum in Information Technology -
Web Development (2CR) #8510

AND/OR

Career Preparation I (3 CR) #8009

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Oracle Certified Associate Java SE 8	AEM 6 Developer	Computer Programming/Programmer, General	Web/Multimedia Management and Webmaster	Computational Science
WD Certified Web Design Certification	Certified Webmaster Professional	Computer Science		
Microsoft Technology Associate Introduction to Programming Certifications	Adobe Campaign Developer	Web Page, Digital/Multimedia and Information Resources Design		Information Science/ Studies
App Development with Swift Certification Level 1	IBM Certified Solution Developer - OpenSocial	Computer Systems Networking and Telecommunications		

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit TXCTE.org.

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Computer Network Architects	\$111,633	1,079	39%
Web Administrators, Computer Occupations	\$85,197	1,616	20%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities:

Join TSA
Participate in a coding or computer programming club
Create a web page

Work Based Learning Activities:

Get an Oracle or CISCO Certification

The Web Development program of study explores the occupations and educational opportunities associated with designing, creating, and modifying websites. This program of study may also explore integrating websites with other computer applications, and converting written, graphic, audio, and video components to compatible web formats by using software designed to facilitate the creation of web and multimedia content.



The Information Technology (IT) Career Cluster® focuses on building linkages in IT occupations for entry level, technical, and professional careers related to the design, development, support, and management of hardware, software, multimedia, and systems integration services.

Successful completion of the Web Development program of study will fulfill requirements of a Business and Industry Endorsement. Approved Statewide Program of Study September 2019



COURSES

Introduction to Welding #8601

LEVEL 1

Welding I (2CR) #8613

LEVEL 2

Welding II (2CR) #8615

LEVEL 3

Practicum in Manufacturing (2CR) #8616

LEVEL 4

AND/OR

Career Preparation I (3CR) #8009

POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
AWS Certified Welder, D1.1, D9.1	Certified Welder or Welder Inspector	Welding Technology/Welder	Welding Engineering Technology/Technician	
ASW SENSE Level 1	Machining Level 1 - CNC Milling: Programming Setup & Operations	Machine Shop Technology/Assistant	Biomedical Technology/Technician	Occupational Health and Industrial Hygiene
API 1104 Welding Certificate	Certified Welding Engineering	Operations Management and Supervision		
NCCER Welding, Level 1	Certified Environmental, Safety, and Health Trainer	Occupational Safety and Health Technology/Technician	Environmental Health	

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit TXCTE.org.

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Welders, Cutters, Solderers, and Brazers	\$41,350	6,171	9%

WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities:
Participate and compete in SkillsUSA
Job shadow a machinist

Work Based Learning Activities:
Apprenticeship at a local business or industry
American Welding Society

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. Students 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.



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.

Successful completion of the Manufacturing Technology program of study will fulfill requirements of the Business and Industry Endorsement.
Approved Statewide Program of Study - September 2019

