2024 - 2025 GPISD CTE FLIPBOOK

A Guide for Teachers, Administrators, & Counselors **VERSION 8.1.24**



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GALENA PARK ISD Career and Technical Education

Non-Discrimination Statement

Galena Park Independent School District does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs, activities, or employment and provides equal access to the Scouts of America and other designated youth groups as required by Title IX, Title VI, Section 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act. Questions, complaints, or requests for additional information regarding the ADA and Section 504 may be forwarded to the designated ADA and Section 504 compliance coordinator.

El Distrito Escolar Independiente de Galena Park no discrimina por motivos de raza, color, nacionalidad, sexo, discapacidad o edad en sus programas, actividades o empleo y brinda igualdad de acceso a los Scouts of America y otros grupos juveniles designados según lo exige el Título IX, Título VI, Sección 504 de la Ley de Rehabilitación de 1973 y la Ley de Estadounidenses con Discapacidades. Las preguntas, quejas o solicitudes de información adicional sobre la ADA y la Sección 504 pueden enviarse al Coordinador de cumplimiento designado de la ADA y la Sección 504.



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CTE OFFERINGS AND DETAILS

ENDORS	PEIMS #	LOCAL COURSE #	CONTACT	PATHWAYS/COURSES	ABBREV	CREDITS	WEIGHTED GPA	ADVANCED CTE	PREREQUISITE	CAMPUS	GRADE
				AGRICULTURE, FOOD,	, AND NA	ATURA	L RESO	URCES			
	13000200	0A0001/02	lensen	Principles of Agriculture, Food, and Natural Resources	PRINAFNR	1				GPHS, NS9	9-12
	13000300	0A1001/02	Jensen	Livestock Production	LIVEPROD	1		Adv		GPHS, NSSH	10-12
~	13000400	0A1100	Jensen	Small Animal Management	SMANIMGT	.5				GPHS, NSSH	9-12
ISTR	13000500	0A1200	Jensen	Equine Science	EQUINSCI	.5				GPHS, NSSH	9-12
SS & INDUSTRY	13000700	0A1401/02	Jensen	Advanced Animal Science	ADVANSCI	1 Sci		Adv	BIO; CHEM or IPC, SMALL ANI, EQUI SCI or LIVE PROD	GPHS, NSSH	11-12
BUSINESS	13001800	0A5301/02	Jensen	Floral Design	FLORAL	1 Art		Adv		GPHS, NS9	9-12
	13000610	0A1311/12	Jensen	Veterinary Medical Applications Lab	VETMEDLAB	2	Yes, 5.0	Adv	SMALL ANI, EQUI SCI or LIVE PROD	GPHS, NSSH	11-12
	13002500	0A9001/02	lensen	Practicum in Agriculture, Food, and Natural Resources	PRACAFNR1	2	Yes, 5.0	Adv		GPHS, NSSH	11-12

					ARCHITECTURE	E AND CO	ONSTR	UCTIO	V			
		13004210	0C1001/02	Jensen	Principles of Architecture	PRINARC	1				NS9	9-12
	-RΥ	13004600	0C3001/02	Jensen	Architectural Design 1	ARCHDSN1	1			ALG 1; ENG 1	NSSH	10-12
	JSINESS & INC	13004700	0C3101/02	Jensen	Architectural Design 2	ARCHDSN2	2	Yes, 5.0	Adv	ARCHDSN1; GEOM	NSSH	11-12
		13004300	0C2001/02	Jensen	Interior Design 1	INTERDS1	1			ALG 1; ENG 1	NSSH	10-12
		13004400	0C2101/02	Jensen	Interior Design 2	INTERDS2	2	Yes, 5.0	Adv	ENG 2; GEOM; INTERDS1	NSSH	11-12
		13004500	0C2201/02	Jensen	Practicum in Interior Design	PRACIDS1	2	Yes, 5.0	Adv	INTERDS2	NSSH	12
		13004800	0C3201/02	Jensen	Practicum in Architectural Design	PRACADS1	2	Yes, 5.0	Adv	ARCHDSN2	NSSH	12

				ARTS, AUDIO VISUAL TECH	NOLOGY	, AND	СОММ	U NICAT	TIONS		
	13008200	0V0001/02	Cantu	Principles of Arts, Audio /Video Technology and Communications	PRINAAVTC	1				GPHS, NS9	7-12
	13008300	0V1001/02	Cantu	Animation 1	ANIMAT1	1				GPHS, NSSH	10-12
	13008400	0V1201/02	Cantu	Animation 2	ANIMAT2	1	Yes, 5.0	Adv	ANIMAT1	GPHS, NSSH	11-12
	13008500	0V2001/02	Cantu	Audio/Video Production 1	AVPROD1	1				GPHS, NSSH	9-12
	13008510	0V2011/12	Cantu	Audio/Video Production 1 & Lab	AVLAB1	2				NS9	9-12
	13008610	0V2111/12	Cantu	Audio/Video Production 2 & Lab	AVPLAB2	2	Yes, 5.0	Adv	AVPROD1	GPHS, NSSH	10-12
	13008800	0V3001/02	Cantu	Graphic Design and Illustration 1	GRAPHDI1	1				ECHS, GPHS, NSSH	10-12
	13008200	0V3013/14	Cantu	AV Yearbook 1	PRINAAVTC	1				GPHS, NSSH	9-12
	13008800	0V3021/22	Cantu	GDI Yearbook 2	GRAPHDI1	1				GPHS, NSSH	10-12
	13008900	0V3031/32	Cantu	GDI Yearbook 3	GRAPHDI2	1	Yes, 5.0	Adv	GRAPHDI1	GPHS, NSSH	11-12
	13008910	0V3041/42	Cantu	GDI Yearbook 4	GRDLAB2	2	Yes, 5.0	Adv	GRAPHDI1	GPHS, NSSH	12
≿	13008900	0V3101/02	Cantu	Graphic Design and Illustration 2	GRAPHDI2	1	Yes, 5.0	Adv	GRAPHDI1	GPHS	11-12
JSTF	13008910	0V3111/12	Cantu	Graphic Design and Illustration 2 & Lab	GRDLAB2	2	Yes, 5.0	Adv	GRAPHDI1	NSSH	11-12
INDI	13009100	0V4001/02	Cantu	Commercial Photography 1	CPHOTO1	1				GPHS, NSSH	10-12
S	13009200	0V4101/02	Cantu	Commercial Photography 2	СРНОТО2	1	Yes, 5.0	Adv		GPHS, NSSH	10-12
BUSINESS & INDUSTRY	13009300	0V5001/02	Cantu	Fashion Design 1	FASHDSN1	1				NSSH	10-12
ISUSI	13009400	0V5101/02	Cantu	Fashion Design 2	FASHDSN2	1	Yes, 5.0	Adv	FASHDSN1	NSSH	10-12
ш	13009900	0V6400	Cantu	Professional Communication	PROFCOMM	0.5				NSSH	8-12
	13009950	0V6501/02	Cantu	Digital Audio Technology 1	DATECH1	1				NSSH	10-12
	13009960	0V6601/02	Cantu	Digital Audio Technology 2	DATECH2	1	Yes, 5.0	Adv	DATECH1	NSSH	10-12
	13009970	0V6701/02	Cantu	Video Game Design	VIDGD	1	,			NSSH	8-12
	N1300995	0V6721/22	Cantu	Adv. Video Game Programming	ADVIDEOGP	1	Yes, 5.0	Adv		NSSH	10-12
	N1300994	0V6731/32	Cantu	Video Game Programming	VIDEOPR	1	,			NS9	9-12
	N1303425	0K1121/12	Cantu	Practicum in Video Game	PRACENT	2	Yes, 5.0	Adv		NSSH	11-12
	13008450	0V1301/02	Cantu	Practicum in Animation	PRACANI1	2	Yes, 5.0	Adv	ANIMAT2	NSSH	11-12
	13008700	0V2201/02	Cantu	Practicum in Audio/Video Production	PRACAVP1	2	Yes, 5.0	Adv	AVPLAB2	GPHS, NSSH	11-12
	13009000	0V3201/02	Cantu	Practicum in Graphic Design & Illustration	PRACGRD1	2	Yes, 5.0	Adv	GRAPHDI2 or GRDLAB2	NSSH	11-12
	13009250	0V4201/02	Cantu	Practicum in Commercial Photography	PRACCPH1	2	Yes, 5.0	Adv	CPHOTO1	GPHS, NSSH	11-12
	13009500	0V5201/02	Cantu	Practicum in Fashion Design	PRACFAS1	2	Yes, 5.0	Adv	FASHDSN2	NSSH	11-12
	N1303425	OK1121/22	Cantu	Practicum in Digital Audio	PRACENT	2	Yes, 5.0	Adv		NSSH	11-12

ENDORS	PEIMS #	LOCAL COURSE #	CONTACT	PATHWAYS/COURSES	ABBREV	CREDITS	WEIGHTED GPA	ADVANCED CTE	PREREQUISITE	CAMPUS	GRADE
				BUSINESS, MARKETII	VG, AND	FINA	VCE				
	13011200	0B0001/02	Jensen	Principles of Business, Marketing, and Finance	PRINBMF	1				GPHS, NS9, NS10	9-11
	13011400	0B1001/02	Jensen	Business Information Management 1	BUSIM1	1				ECHS, GPHS, NS10	9-12
	13011400	0B1051/52	Jensen	Business Information Management 1	BUSIM1	1				NSSH	11-12
	13011500	0B1101/02	Jensen	Business Information Management 2	BUSIM2	1	Yes, 5.0		BUSIM1	GPHS, NSSH	10-12
	13011600	0B2001/02	Jensen	Business English	BUSENGL	1			ENG 3	NSSH	12
	13011800	0B4000	Jensen	Global Business	GLOBBUS	.5		Adv		GPHS, NSSH	10-12
	13012000	0B6001	Jensen	Virtual Business	VIRTBUS	.5				GPHS, NSSH	10-12
	13016200	0F0001/02	Jensen	Money Matters	MONEYM	1				NSSH	9-12
ΓRΥ	13016600	0F4001/02	Jensen	Accounting 1	ACCOUNT1	1				NSSH	10-12
LSUC	13016700	0F4101/02	Jensen	Accounting 2	ACCOUNT2	1 Math	Yes, 5.0	Adv	ACCOUNT1	NSSH	11-12
BUSINESS & INDUSTRY	13018000	0F5101/02	Jensen	Financial Mathematics	FINMATH	1 Math			ALG 1	ECHS, GPHS, NSSH	10-12
SS 8	13034200	0K0004	Jensen	Advertising	ADVERTIS	.5		Adv		NSSH	10-12
SINE	13011101	0K1001/02	Jensen	Entrepreneurship 1	ENTREP	1				ECHS	10-12
BUS	13034600	0K2000	Jensen	Sports and Entertainment Marketing	SPORTSEM	.5				NS9, NS10 NSSH	9-12
	13034650	0K2100	Jensen	Social Media Marketing	SMEDMKTG	.5		Adv		NS9, NS10, NSSH	10-12
	84900XXX	0R2001/12	Jensen	Career Preparation Training	LC CR&TE	0				NSSH	9-12
	13012100	0B7001/2	Jensen	Business Management	BUSMGT	1		Adv		GPHS, NSSH	11-12
	13011111	0K1101/02	Jensen	Practicum in Entrepreneurship	PRACENT	2	Yes, 5.0	Adv		NSSH	11-12
	13034805	OK3111/12	Jensen	Ext. Practicum in Marketing 1	EXPRMKT1	3	Yes, 5.0	Adv		NSSH	11-12
	13034815	OK3211/12	Jensen	Ext. Practicum in Marketing 1	EXPRMKT2	3	Yes, 5.0	Adv		NSSH	11-12
	12701111	9R2021/22	Jensen	Career Preparation 1, General	CAREERP1	2		Adv		NSSH	11-12
	12701112	9R0031/32	Jensen	Career Preparation 2	CAREERP2	2	Yes, 5.0	Adv		NSSH	11-12

	EDUCATION AND TRAINING													
	13014200	0D0001/02	Cantu	Principles of Education and Training	PRINEDTR	1				GPHS, NS9, NSSH	9-10			
JBLIC	13014300	0D1001/02	Cantu	Human Growth and Development	HUGRDEV	1				NSSH	10-12			
PUE	13014400	0D2001/02	Cantu	Instructional Practices in Education and Training	INPRAC	2	Yes, 5.0	Adv	1 Edu Course	GPHS, NSSH	11-12			
	13014500	0D2101/02	Cantu	Practicum in Education and Training	PRACEDT1	2	Yes, 5.0	Adv	INPRAC	GPHS, NSSH	12			

				ENGINEE	RING						
	13036200	0S0001/02	Jensen	Principles of Applied Engineering	PRAPPENG	1				GPHS, NS9	9-10
_	13036500	0S2101/02	Jensen	Engineering Design and Presentation 1	ENGDSPR1	1		Adv	ALG 1	GPHS, NSSH	10-12
TEM	13036600	0S2201/02	Jensen	Engineering Design and Presentation 2	ENGDSPR2	2	Yes, 5.0	Adv	ALG 1; GEOM	GPHS, NSSH	11-12
-s/i	13032900	0S2401/02	Jensen	Introduction to Aerospace	MANENGT1	1				NSSH	10-12
B&I	13037200	0S2301/02	Jensen	Aerospace 1	SCIRD	1 Sci	Yes, 5.0	Adv	BIO; CHEM; or IPC	NSSH	11
	13037300	0S2311/12	Jensen	Aerospace 2	ENGDPRS	1 Sci	Yes, 5.0	Adv	ALG 1; GEO	NSSH	12

				HEALTH SO	CIENCE						
	13020200	0H0001/02	Cantu	Principles of Health Science	PRINHLSC	1				GPHS, NS9	9-10
	13020300	0H1001/02	Cantu	Medical Terminology	MEDTERM	1				GPHS, NS10, NSSH	10-11
	13020400	0H2001/02	Cantu	Health Science Theory	HLTHSCI	1	Yes, 5.0	Adv	BIO; 1 Crd Hlth Sci Cluster	GPHS, NSSH	11-12
	13020600	0H4001/02	Cantu	Anatomy and Physiology	ANATPHYS	1 Sci		Adv	BIO; CHEM, IPC or Physics	GPHS, NSSH	11-12
SERVICE/STEM	13020700	0H5001/02	Cantu	Medical Microbiology	MICRO	1 Sci		Adv	BIO; CHEM & 1 Crd Hlth Sci Cluster	GPHS, NSSH	10-12
VICE	13020500	0H1031/32	Cantu	Practicum in Health Science - Medical Assisting	PRACHLS1	2	Yes, 5.0	Adv	HLTHSCI; BIO	GPHS, NSSH	12
	13020410	0H2121/22	Cantu	Health Science Theory/Clinical	HLSCLIN	2	Yes, 5.0	Adv	BIO	GPHS, NSSH	11-12
PUBLIC	13020500	0H3101/02	Cantu	Practicum in Health Science - Dental	PRACHLS1	2	Yes, 5.0	Adv	HLTHSCI; BIO	GPHS, NSSH	12
PU	13020505	0H3211/12	Cantu	Practicum in Health Science - Medical Cooperative	EXPRHLS1	3	Yes, 5.0	Adv	HLTHSCI; BIO	GPHS, NSSH	12
	13020500	0H9221/22	Cantu	Practicum in Health Science - Patient Care Technician	PRACHLS1	2	Yes, 5.0	Adv	HLTHSCI; BIO	NSSH	12
	13020200	0H9001/02	Cantu	Athletic Trainer 1	PRINHLSC	1				GPHS, NS9	9-10
	13020410	0H9021/22	Cantu	Athletic Trainer 2	HLSCLIN	2	Yes, 5.0	Adv	BIO	GPHS, NSSH	10-12
	13020500	0H9031/32	Cantu	Athletic Trainer 3	PRACHLS1	2	Yes, 5.0	Adv	HLTHSCI; BIO	GPHS, NSSH	11-12
	13020510	0H9041/42	Cantu	Athletic Trainer 4	PRACHLS2	2	Yes, 5.0	Adv	HLTHSCI; BIO	GPHS, NSSH	12

ENDORS	PEIMS #	LOCAL COURSE #	CONTACT	PATHWAYS/COURSES	ABBREV	CREDITS	WEIGHTED GPA	ADVANCED CTE	PREREQUISITE	CAMPUS	GRADE
						· · · · · ·					
≺ ⊗	13022550	0P2001/02	Cantu	Introduction to Culinary Arts	INCULART	1				GPHS, NSSH	9-10
IESS	13022600	0P2101/02	Cantu	Culinary Arts	CULARTS	2				GPHS, NSSH	10-12
BUSINI	13022650	0P2201/02	Cantu	Advanced Culinary Arts	ADCULART	2	Yes, 5.0	Adv	CULARTS	GPHS, NSSH	11-12
- B - B	13022700	0P2301/02	Cantu	Practicum in Culinary Arts	PRACCUL1	2	Yes, 5.0	Adv	CULARTS	GPHS	12

	HUMAN SERVICES												
	13024400	0U2000	Cantu	Interpersonal Studies	INTERSTU	.5				NSSH	10-12		
BLIC	13024500	0U3000	Cantu	Lifetime Nutrition and Wellness	LNURTWEL	.5				NSSH	10-12		
PUE	13014300	0D1001/02	Cantu	Human Growth and Development	HUGRDEV	1				NSSH	10-12		
	13024600	0U4001/02	Cantu	Counseling and Mental Health	COUNSMH	1		Adv		NSSH	10-12		

	INFORMATION TECHNOLOGY													
		13027200	0N0001/02	Jensen	Principles of Information Technology	PRINIT	1				NSSH	9-10		
2	5	3580200	683551/2	Jensen	Computer Science 1	TACS1	1			ALG 1	NSSH	9-12		
1/51	B&I/STE	13027300	0N1001/02	Jensen	Computer Maintenance	COMPMTN	1				NSSH	10-12		
R8,		A3580300	0N1021/22	Jensen	AP Computer Science, Principles	APCSPRIN	1	Yes, 5.0	Adv		NSSH	10-12		
	Ī	A3580110	683601/02	Jensen	AP Computer Science, Math	APTACSAM	1 Math	Yes, 5.0	Adv		NSSH	11-12		

				LAW AND PUBL	IC SERVI	CE					
	13029200	0L0001/02	Jensen	Principles of Law, Public Safety, Corrections, and Security	PRINLPCS	1				GPHS, NS9	9-12
	13029300	0L1001/02	Jensen	Law Enforcement 1	LAWENF1	1				GPHS, NS10	10-12
	13029400	0L1101/02	Jensen	Law Enforcement 2	LAWENF2	1	Yes, 5.0	Adv		GPHS, NSSH	10-12
ш	13029550	0L2101/02	Jensen	Criminal Investigation	CRINVEST	1				NSSH	10-12
SERVICE	13029700	0L3101/02	Jensen	Correctional Services	CORRSRVS	1		Adv		GPHS, NSSH	10-12
	13029500	0L2001/02	Jensen	Forensic Science	FORENSCI	1 Sci		Adv	BIO; CHEM, IPC, or Physics	GPHS, NSSH	11-12
PUBLIC	13030100	0L5001/02	Jensen	Practicum in Law, Public Safety, Corrections, and Security	PRACLPS1	2	Yes, 5.0	Adv		NSSH	11-12
	13030110	0L5101/02	Jensen	Practicum in Law, Public Safety, Corrections, and Security	PRACLPS2	2	Yes, 5.0	Adv		NSSH	11-12
	13030100	0L5501/02	Jensen	Law Academy 1 - Year 1	PRACLPS1	1	Yes, 5.0	Adv		NSSH	11
	13030100	0L5511/12	Jensen	Law Academy 2 - Year 2	PRACLPS1	1	Yes, 5.0	Adv		NSSH	12

	MANUFACTURING											
B&I/STEM	13037000	0S5101/02	Jensen	Robotics 1	ROBOTIC1	1				GPHS, NSSH	9-10	
B&I/STEM	13037050	0\$5201/02	Jensen	Robotics 2	ROBOTIC2	1 Math	Yes, 5.0	Adv	ROBOTIC1	GPHS, NSSH	10-12	
B&I	13032250	0M1001/02	Jensen	Introduction to Welding	INTRWELD	1				GPHS, NS9,	9-10	
B&I	13032300	0M1101/02	Jensen	Welding 1	WELD1	2				GPHS, NSSH	10-12	
B&I	13032400	0M1201/02	Jensen	Welding 2	WELD2	2	Yes, 5.0	Adv	WELD1	GPHS, NSSH	11-12	
B&I/STEM	13033000	0\$5401/02	Jensen	Practicum in Robotics	PRACMAN1	2	Yes, 5.0	Adv		GPHS, NSSH	12	
B&I	13033000	0M1301/02	Jensen	Practicum in Manufacturing	PRACMAN1	2	Yes, 5.0	Adv		GPHS	12	

				TRANSPORTATION, DISTRIB	U TION, A	AND L	.OGISTI	ICS			
	13039260	0T1101/02	Cantu	Principles of Distribution and Logistics	PRINDILG	1				NSSH	9-12
	13039550	0T3001/02	Cantu	Automotive Basics	AUTOBASC	1				GPHS, NSSH	9-12
SS & TRY	13039600	0T3101/02	Cantu	Automotive Technology 1: Maintenance and Light Re	AUTOTEC1	2		Adv		GPHS, NSSH	9-12
INE	13039700	0T3201/02	Cantu	Automotive Technology 2: Automotive Service	AUTOTEC2	2	Yes, 5.0	Adv	AUTOTEC1	GPHS, NSSH	11-12
BUS	13040200	0Т8001/02	Cantu	Management of Transportation Systems	MNGTRSY	1				NSSH	9-12
	13040450	0Т9101/02	Cantu	Practicum in Transportation Systems 1	PRACTRS1	2	Yes, 5.0	Adv		GPHS	12
	13040455	0T9111/12	Cantu	Ext. Practicum in Transportation Systems 1	EXPRTRS1	3	Yes, 5.0	Adv		GPHS, NSSH	11-12

				MIDDLE SCHOOL C	OURSES						
ENDORS	PEIMS #	LOCAL COURSE #	CONTACT	COURSE NAME	ABBREV	CREDITS	WEIGHTED GPA	ADVANCED	PREREQ	CAMPUS	GRADE
B&I	13008200	HS001/02	Cantu	Principles of Arts, Audio /Video Technology and Communications	PRINAAVTC	1				WAMS	7-8
STEM	13032200	HS0M01/02	Jensen	Principles of Manufacturing	PRINMAN	1				CMS, GPMS	7-8
B&I	13009970	HS0V6A/B	Cantu	Video Game Design	VIDGD	1				ALL	7-8
NONE	13011300	HS1600/01	Jensen	Touch System Data Entry	TSDATAE	.5				CMS, NSMS	7-8
Э	13024200	HS4501/02	Cantu	Principles of Human Services	PRINHUSR	1				CMS, GPMS, NSMS	8
PUBLIC SERVICE	N1302542	HS6121/22	Cantu	Think Tank	COMMSERV	1				ALL	7
JBLICS	N1302542	HS6201/02	Cantu	Think Tank- Encounters	COMMSERV	1				ALL	7
	N1302542	HS6301/02	Cantu	Think Tank- SP	COMMSERV	1				CMS, NSMS	7
	3580400	HS7501/02	Cantu	Digital Design and Media Production	TADGDMP	1				CMS, GPMS, NSMS	7-8
~	3580500	HS7601/02	Cantu	Digital Art and Animation	TADGAA	1 Art		Adv	ART1	NSMS	8
B&I	13009900	HS9151	Cantu	CCR	PROFCOMM	0.5				ALL	8
	13009900	HS9152	Cantu	CCR Resource	PROFCOMM	0.5				CMS, NSMS	8
	13009900	HS9191	Cantu	CCR Encounters	PROFCOMM	0.5				ALL	7-8
B&I/STEM	13036200	HSS001/02	Cantu	Principles of Applied Engineering	PRAPPENG	1				GPMS	8
	82970TDS	MS0060	Jensen	Touch System Data Entry		0				GPMS, NSMS	7-8
	82990XXX	MS1771	Cantu	Think Tank MS		0				ALL	7
	83800XXX	MS4501	Cantu	Human Srvc MS		0				CMS, GPMS, NSMS	8
NONE	12700110	MS7108	Jensen	Career and College Exploration (1st Time Taken)		0				CMS, GPMS, NSMS	7-8
	12700120	MS7109	Jensen	Career and College Exploration (2nd Time Taken)		0				GPMS	7-8
	838000ROB	MS7218	Jensen	Info Tech		0				GPMS	7-8
	83800XXX	MS9151	Jensen	CCR MS		0				ALL	8

CTE PROGRAMS OF STUDY FRAMEWORKS & FLOWCHARTS

- Middle School Courses
- Agriculture, Food, & Natural Resources
- Architecture & Construction
- Arts, Audio Visual Technology, & Communications
- Business, Marketing, & Finance
- Education & Training
- Engineering
- Health Science
- Hospitality & Tourism
- Human Services
- Information Technology
- Law & Public Service
- Manufacturing

Indicates

Advanced Course

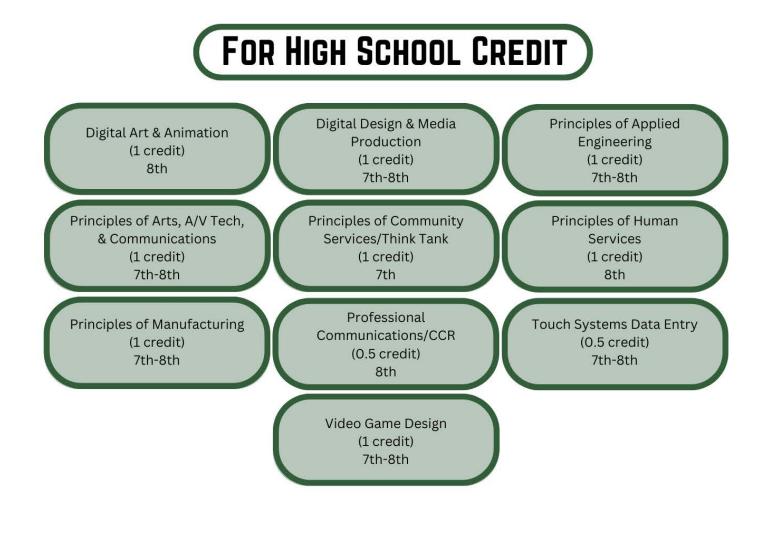
(Level 3 or 4)

• Transportation, Distribution, & Logistics

Flowchart Key

Indicates Limited Seating Course Indicates Prerequisite(s) Required

MIDDLE SCHOOL CTE COURSES



MIDDLE SCHOOL OPTIONS

Career & College Exploration 1st Time Taken (Year) 7th-8th Career & College Exploration -2nd Time Taken (Year) 7th-8th

Information Technology (1 Semester) 7th-8th



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 occupations ranging from farmer, rancher, and veterinarian to geologist, land conservationist, and florist.

Statewide Program of Study: Animal Science

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

	Sec	condary Courses for High School Credit
	Level 1	 Principles of Agriculture, Food, & Natural Resources
	Level 2	Small Animal ManagementEquine ScienceEntrepreneurship 1
	Level 3	Livestock Production

- Level 4 Advanced Animal Science
 - Veterinary Medical Applications & Lab
 - Practicum in Agriculture, Food, & Natural Resources

Aligned Advanced Academic Courses

AP or IB AP Biology

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

Work-Based Learning and Expanded Learning Opportunities

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

Aligned Industry-Based Certifications

- Elanco Fundamentals of Animal Science Certification
- Elanco Veterinary Medical Applications Certification



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





Example Postsecondary Opportunities

Apprenticeships

Reproduction Technician

Associate Degrees

- Biological and Physical Sciences
- Entomology

Bachelor's Degrees

- Animal Science
- Zoology/Animal Biology

Master's, Doctoral, and Professional Degrees

- Marine Sciences
- Biotechnology

Additional Stackable IBCs/License

- Veterinarian
- Certified Veterinary Technician



Example Aligned Occupations

Veterinary Assistants and Laboratory Animal Caretakers

Median Wage: \$29,906 Annual Openings: 1,348 10-Year Growth: 24%

Veterinary Technologists and Technicians

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

Veterinarian

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

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



https://tea.texas.gov/academics/college-career-and-militaryprep/career-and-technical-education/programs-of-study-additionalresources





Animal Science Program of Study

Principles of Agriculture, Food, & Natural Resources (1 Credit) 9th-12th

> Small Animal Management (0.5 Credit) 10th-12th

Equine Science (0.5 Credit) 10th-12th

Entrepreneurship 1 (1 Credit) 10th-12th

Livestock Production (1 Credit) 10th-12th

Advanced Animal Science (1 Science Credit) 11th-12th

Veterinary Medical Applications (2 Credits) 11th-12th

Practicum in Agriculture, Food, & Natural Resources (2 Credits) 11th-12th

Agriculture, Food, & Natural Resources Cluster Business & Industry Endorsement



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 occupations ranging from farmer, rancher, and veterinarian to geologist, land conservationist, and florist.

Statewide Program of Study: Plant Science

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

Secondary Courses for High School Credit

Level 1	 Principles of Agriculture, Food, & Natural Resources
Level 2	Entrepreneurship 1
Level 3	Floral Design

Level 4 • Practicum in Agriculture, Food, & Natural Resources

Aligned Advanced Academic Courses

	AF
AP	AF
	A

AP Biology AP Chemistry AP Environmental Science

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

Work-Based Learning and Expanded Learning Opportunities

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

Aligned Industry-Based Certifications

Principles of Floral Design Certification



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





Example Postsecondary Opportunities

Apprenticeships
Horticulturist

Associate Degrees

- Biology/Biological Sciences
- Biological and Physical Sciences

Bachelor's Degrees

- Horticulture
- Plant Pathology/Phytopathology

Master's, Doctoral, and Professional Degrees

- Plant Breeding
- Botany/Plant Biology

Additionall Stackable IBCs/License

- Nursery Floral License
- Horticulturist Certification



Example Aligned Occupations

Pesticide Handlers, Sprayers, and Applicators, Vegetation

Median Wage: \$46,153 Annual Openings: 205 10-Year Growth: 17%

Biological Technicians

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

Farmers, Ranchers, and Other Agricultural Managers

Median Wage: \$65,490 Annual Openings: 28,020 10-Year Growth: 4%

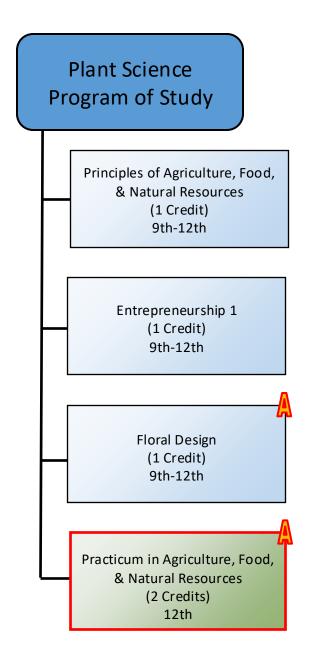
Data Source: TexasW ages, Texas Workforce Commission. Retrieved 3/8/2024.



For more information visit: https://tea.texas.gov/academics/college-career-and-militaryprep/career-and-technical-education/programs-of-study-additionalresources

Agriculture, Food, & Natural Resources Cluster

Business & Industry Endorsement





Architecture and Construction Career Cluster

The Architecture and Construction career cluster focuses on designing, planning, managing, building, and maintaining the built environment. This career cluster includes occupations ranging from architect, carpenter, and construction manager to electrician, plumber and heating, air conditioning, and refrigeration technician.

Statewide Program of Study: Architectural Drafting and Design

The Architectural Drafting and Design program of study focuses on occupational and educational opportunities associated with developing, engineering, and designing building structures and facilities. This program of study includes reading, interpreting, and draw ing blueprints for interior and exterior construction projects.



Secondary Courses for High School Credit

Level 1	Principles of Architecture
Level 2	Architectural Design 1Interior Design 1
Level 3	Architectural Design 2Interior Design 2
Level 4	Practicum in Architectural DesignPracticum in Interior Design



Apprenticeships

• Drafter

Associate Degrees

- CAD/CADD Drafting and/or Design Technology
- Drafting and Design Technology
- Surveying Technology/Surveying
- Architectural Drafting and Architectural CAD/CADD

Bachelor's Degrees

- Civil Engineering
- Construction Engineering
 - Surveying Engineering
- Drafting and Design Technology

Master's, Doctoral, and Professional Degrees

- Civil Engineering
- Geographic Information Science and Cartography
- Construction Engineering Technology

Example Aligned Occupations

Architectural and Civil Drafters

Median Wage: \$57,424 Annual Openings: 1,366 10-Year Growth: 15%

Architects

Median Wage: \$80,903 Annual Openings: 966 10-Year Growth: 18%

Construction Managers

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

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024 For more information visit:



https://tea.texas.gov/academics/college-careerand-military-prep/career-and-technicaleducation/programs-of-study-additional-resources

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	 Intern at an architectural firm to develop CADD drafting and design technology skills Shadow a civil engineer to learn more about their day-to- day responsibilities
Expanded Learning	 Conduct an informational interview with an architect to
Opportunities	learn about their role and responsibilities Participate in SkillsUSA or TSA

Aligned Industry-Based Certifications

• Autodesk Associate (Certified User) Revit Architecture

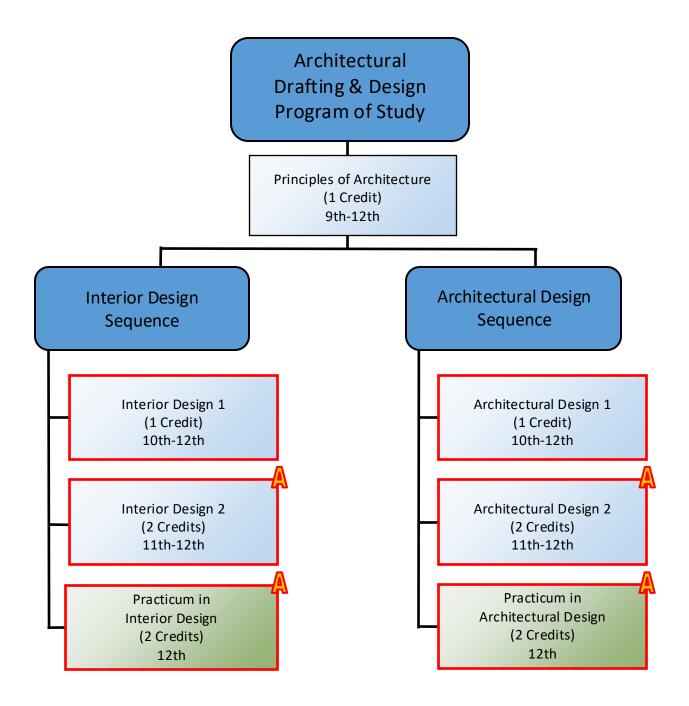


Successful completion of the Architectural Drafting and Design program of study will fulfill requirements of the Business and Industry endorsement.



Architecture & Construction Cluster

Business & Industry Endorsement





Arts, Audio Visual Technology, and Communication Career Cluster

The Arts, Audio Visual Technology, and Communication (AAVTC) career cluster focuses on designing, producing, exhibiting, performing, writing, and publishing multimedia content requiring creative aptitude, fluency in computer and technology applications, and proficiency in oral and written communication. This career cluster includes occupations ranging from camera operator, audio and video technician, director, and producer to graphic designer and web and digital interface designer.

Statewide Program of Study: Digital Communications

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



- Level 1 . Principles of Arts, Audio/Video Technology, & Communications
 Professional Communications
 - Professional Communications
- Level 2 . Audio/Video Production 1
 - Audio/Video Production 1 & Lab
 - Digital Audio Technology 1
 - Digital Design & Media Production
 - Entrepreneurship 1
- Level 3 · Audio/Video Production 2 & LabDigital Audio Technology 2
- Level 4 Practicum in Audio/Video Production
 - Practicum in Digital Audio Technology
 - Practicum in Entrepreneurship

Work-Based Learning and Expanded Learning Opportunities

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

Aligned Industry-Based Certifications

- Adobe Certified Professional in Digital Video Using Adobe Premiere Pro
- Adobe Certified Professional in Visual Design Using Adobe Photoshop



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





Example Postsecondary Opportunities

Apprenticeships

Light Technician

Associate Degrees

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

Bachelor's Degrees

- Cinematography and Film/Video Production
- Recording Arts Technology

Master's, Doctoral, and Professional Degrees

- Animation, Interactive Technology, Video Graphics, and Special Effects
- Communications Technology

Additional Stackable IBCs/License

 CompTIA Digital Media and Entertainment Professional Certification (DMEP)



Example Aligned Occupations

Camera Operators, Television, Video, and Film

Median Wage: \$48,422 Annual Openings: 155 10-Year Growth: 20%

Audio and Video Technicians

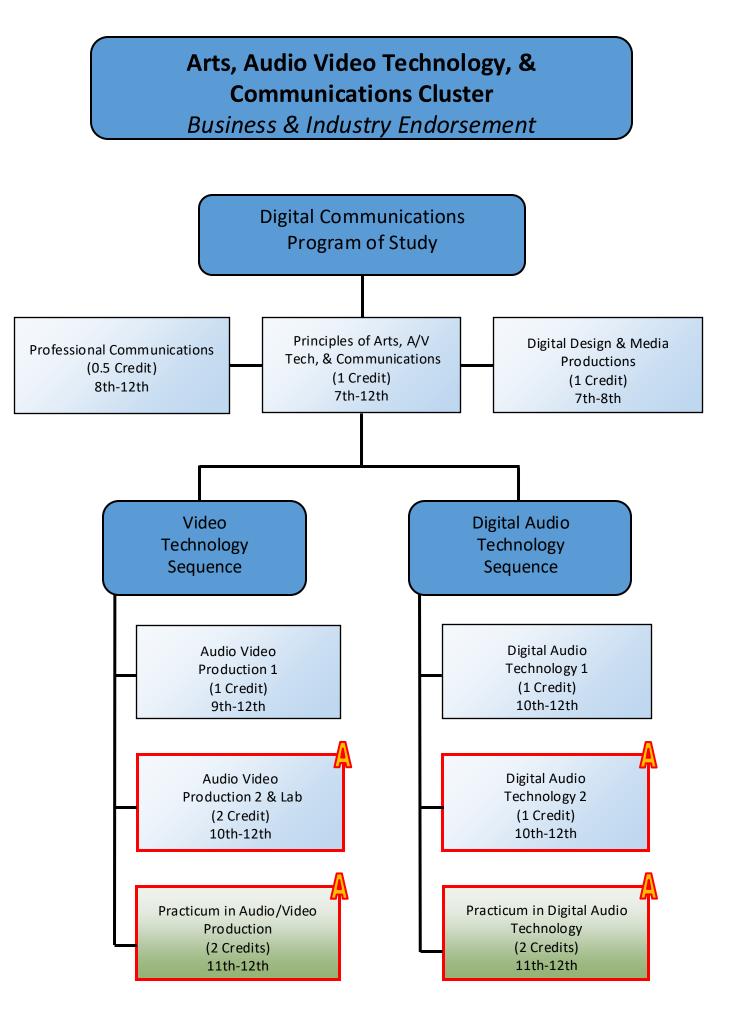
Median Wage: \$46,319 Annual Openings: 626 10-Year Growth: 30%

Producers and Directors

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



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



Arts, Audio Visual Technology, and Communication Career Cluster

The Arts, Audio Visual Technology, and Communication (AAVTC) career cluster focuses on designing, producing, exhibiting, performing, writing, and publishing multimedia content requiring creative aptitude, fluency in computer and technology applications, and proficiency in oral and written communication. This career cluster includes occupations ranging from camera operator, audio and video technician, director, and producer to graphic designer and web and digital interface designer.

Statewide Program of Study: Graphic Design and Interactive Media

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

Secondary Courses for High School Credit

Level 1	 Principles of Arts, Audio/Video Technology, & Communications Video Game Design Yearbook 1 (PRINAAVTC)
Level 2	 Graphic Design & Illustration 1 Animation 1 Commercial Photography 1 Fashion Design 1 Video Game Programming Digital Design & Media Productions Entrepreneurship 1 Yearbook 2 (GRAPHDI1)
Level 3	 Graphic Design & Illustration 2 Graphic Design & Illustration 2 & Lab Animation 2 Commercial Photography 2 Fashion Design 2 Advanced Video Game Design Digital Art & Animation Yearbook 3 (GRAPHD12) Yearbook 4 (GRDLAB2)
Level 4	Practicum in Graphic Design & IllustrationPracticum in Animation

- Practicum in Commercial Photography
- Practicum in Fashion Design
- Practicum in Entrepreneurship

Aligned Advanced Academic Courses

AP AP Studio Art: Two-Dimensional Design Portfolio

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

Work-Based Learning and Expanded Learning Opportunities

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

Aligned Industry-Based Certifications

alena Pa

- Adobe Certified Professional in Digital Video Using Adobe Premiere Pro
- Adobe Certified Professional in Graphic Design and Illustration using Illustrator
- Adobe Certified Professional in Visual Design Using Adobe Photoshop



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



Example Postsecondary Opportunities

Associate Degrees

- Graphic Design
- Digital Arts

Bachelor's Degrees

- Web Page, Digital/Multimedia and Information Resources Design
- Design and Visual Communications

Master's, Doctoral, and Professional Degrees

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

Additional Stackable IBCs/License

• Certified Textile Designer (CTD)



Example Aligned Occupations

Software Developers

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

Graphic Designers

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

Art Directors

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

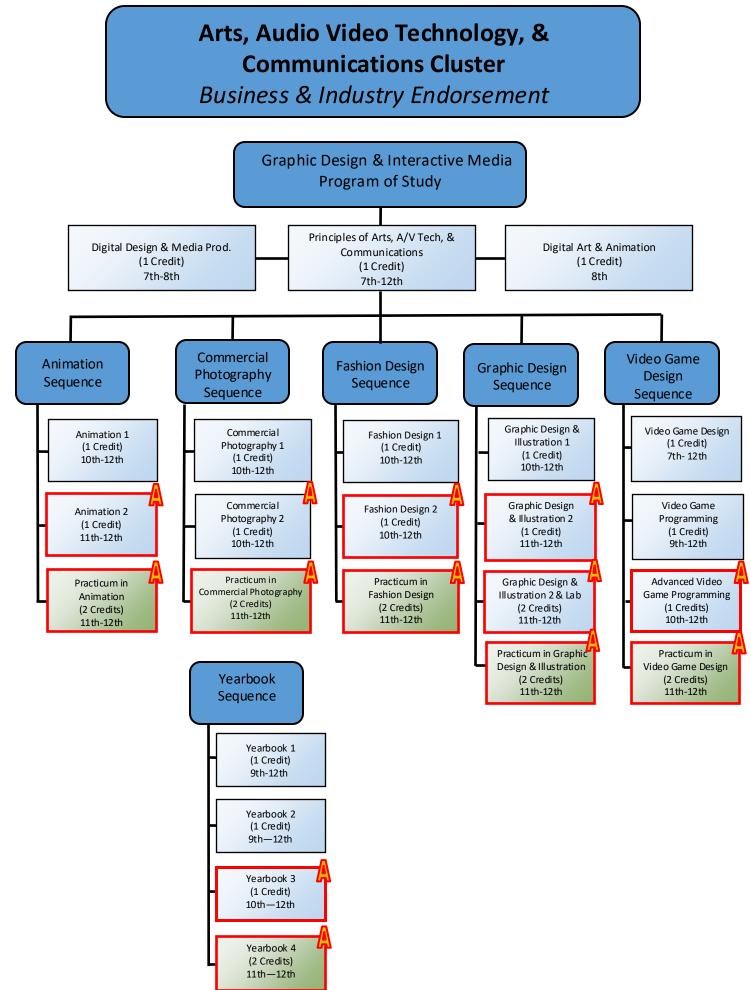






Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024

For more information visit: https://tea.texas.gov/academics/college-career-and-militaryprep/career-and-technical-education/programs-of-study-additionalresources





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. This career cluster includes occupations ranging from business owner and entrepreneur to accountant, retail manager, and market analyst.

Statewide Program of Study: Accounting and Financial Services

The Accounting and Financial Services program of study focuses on occupational and educational opportunities associated with examining, analyzing, and interpreting financial records. It includes exploration of financial services, preparing financial statements, auditing financial statements prepared by others, and interpreting accounting records. This program of study also introduces students to mathematical modeling tools.

	Sec	ondary Courses for High School Credit
	Level 1	 Principles of Business, Marketing, & Finance Business Information Management 1 Money Matters
	Level 2	Accounting 1Financial MathematicsEntrepreneurship 1
	Level 3	Accounting 2



Example Postsecondary Opportunities

Associate Degrees

- Accounting
- Bookkeeping

Bachelor's Degrees

- Accounting
- Banking and Financial Support Services

Master's, Doctoral, and Professional Degrees

Business Administration and Management

Finance

Additional Stackable IBCs/License

- Project Management Professional
- Property Tax Consultants Service Contract Providers



Example Aligned Occupations

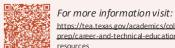
Tax Preparers

Median Wage: \$56,956 Annual Openings: 898 10-Year Growth: 14%

Accountants and Auditors Median Wage: \$78,022 Annual Openings: 12,989 10-Year Growth: 20%

Personal Financial Advisors Median Wage: \$77,605 Annual Openings: 1,877 10-Year Growth: 21%

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



Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	 Intern with a certified public accountant (CPA) at a local business Intern with a city or county auditor's office Shadow a financial advisor as an intern at an investment company
Expanded Learning Opportunities	 Participate in BPA, DECA, or FBLA Explore student membership in professional organizations such as AICPA, CIMA, or TXCPA

Aligned Industry-Based Certifications

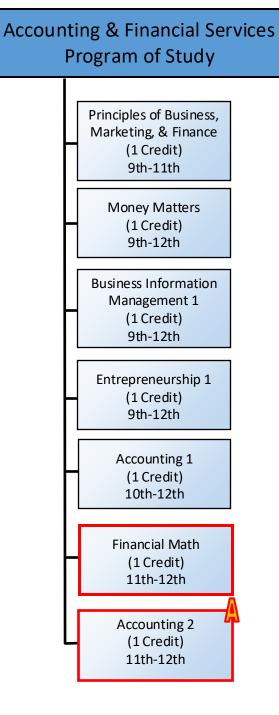
- Accounting-Basic
- Microsoft Office Specialist: Microsoft Excel Expert (Excel 2019)



Successful completion of the Accounting and Financial Services program of study will fulfill requirements of the Business and Industry endorsement.



Business, Marketing, & Finance Cluster Business & Industry Endorsement





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. This career cluster includes occupations ranging from business owner and entrepreneur to accountant, retail manager, and market analyst.

Statewide Program of Study: Business Management

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

	condary Courses for High School Credit	
	Level 1	Principles of Business, Marketing, & FinanceBusiness Information Management 1
	Level 2	 Virtual Business Business Information Management 2 Entrepreneurship 1
	Level 3	Business ManagementGlobal Business

Aligned Advanced Academic Courses

AP **AP Statistics**

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

Work-Based Learning and Expanded Learning Opportunities

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

Aligned Industry-Based Certifications

- Entrepreneurship & Small Business
- Microsoft Office Specialist: Microsoft Excel Expert (Excel 2019)
- Microsoft Office Specialist: Microsoft Word Expert (Word 2019)
- Stukent Social Media Marketing Certification



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





Example Postsecondary Opportunities

Associate Degrees

- Business Administration and Management
- Human Resources Management

Bachelor's Degrees

- **Business Analytics**
- Accounting and Business

Master's, Doctoral, and Professional Degrees

- Business Administration and Management
- Organizational Leadership

Additional Stackable IBCs/License

- Professional Certificate in Team Leadership
- **Property Tax Professionals**



Example Aligned Occupations

First-Line Supervisors of Administrative Support Workers Median Wage: \$59,585 Annual Openings: 13,885 10-Year Growth: 9%

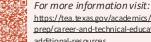
Human Resources

Specialists Median Wage: \$61,278 Annual Openings: 6,239 10-Year Growth: 23%

General and Operations Managers Median Wage: \$83,220 Annual Openings: 25,450

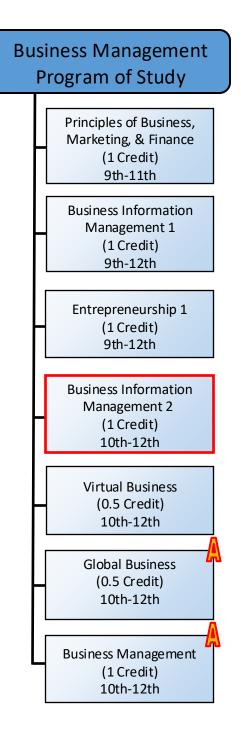
10-Year Growth: 23%

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



https://tea.texas.gov/academics/college-career-and-militaryprep/career-and-technical-education/programs-of-studyadditional-resources

Business, Marketing, & Finance Cluster Business & Industry Endorsement





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. This career cluster includes occupations ranging from business owner and entrepreneur to accountant, retail manager, and market analyst.

Statewide Program of Study: Marketing and Sales

The Marketing and Sales program of study focuses on occupational and educational opportunities associated with collecting information to estimate potential sales of a product or service and create campaigns to market or distribute goods and services. It includes applying data related to customer demographics, preferences, needs, and buying habits.



Level 4 Extended Practicum in Marketing

Aligned Advanced Academic Courses

AP **AP Statistics**

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

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	 Intern at a marketing and advertising company Job shadow a pharmaceutical sales representative Intern at a local retail company
Expanded Learning Opportunities	 Job shadow an account representative at a marketing firm Participate in BPA, DECA, FBLA, or related UIL events

Aligned Industry-Based Certifications

- Entrepreneurship & Small Business
- Stukent Social Media Marketing Certification



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





Example Postsecondary Opportunities

Associate Degrees

- Marketing/Marketing Management
- **Retail Management**

Bachelor's Degrees

- **Business Administration**
- Marketing/Marketing Management
- Fashion Merchandising

Master's, Doctoral, and Professional Degrees

- **Business Administration**
- **Applied Economics**
- **Business Analytics**

Additional Stackable IBCs/License

- Salesforce
- Service Contract Providers



Example Aligned Occupations

Retail Salespersons

Median Wage: \$28, 356 Annual Openings: 56,132 10-Year Growth: 15%

Market Research Analysts

Median Wage: \$60,926 Annual Openings: 5,688 10-Year Growth: 35%

Sales Managers

Median Wage: \$123,729 Annual Openings: 3,368 10-Year Growth: 21%



Data Source: TexasWages, Texas Workforce Commission. Retrieved3/8/2024. For more information visit: https://tea.texas.gov/academics/college-careerand-military-prep/career-and-technical-

Business, Marketing, & Finance Cluster Business & Industry Endorsement

Marketing & Sales **Program of Study** Principles of Business, Marketing, & Finance (1 Credit) 9th-11th Sports & Entertainment Marketing (0.5 Credit) 9th-12th Virtual Business (0.5 Credit) 10th-12th Digital Design & Media Production (1 Credit) 7th-8th Entrepreneurship 1 (1 Credit) 10th-12th Social Media Marketing (0.5 Credit) 9th-12th Advertising (0.5 Credit) 10th-12th Extended Practicum in Marketing (3 Credits) 11th-12th



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. This career cluster includes a diverse spectrum of occupations, ranging from teaching assistant, classroom teacher, to school administrator.

Statewide Program of Study: Teaching and Training

The Teaching and Training program of study focuses on occupational and educational opportunities associated with careers related to teaching, instructing, and creating instructional and enrichment materials. The program of study includes recognizing a variety of student groups and their corresponding needs, identifying processes for developing curriculum and coordinating educational content, and coaching groups and individuals.

Secondary Courses for High School Cre		
-	Level 1	Principles of Education & TrainingPrinciples of Human Services
	Level 2	Human Growth & Development
	Level 3	Instructional Practices

Level 4 • Practicum in Education & Training



Example Postsecondary Opportunities

Apprenticeships

Teacher Apprentice

Associate Degrees

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

Bachelor's Degrees

- Elementary Education and Teaching
- Secondary Education and Teaching

Master's, Doctoral, and Professional Degrees

- Educational Leadership and Administration, General
- Curriculum and Instruction

Additional Stackable IBCs/License

Generalist, Grades EC-4



Example Aligned Occupations

Teaching Assistants, Except Postsecondary

Median Wage: \$28,066 Annual Openings: 10,000 10-Year Growth: 15%

Secondary School Teachers, Except Special Education and CTE

Median Wage: \$61,035 Annual Openings: 8,288 10-Year Growth: 14%

Education Administrators, Kindergarten through Secondary

Median Wage: \$81,976 Annual Openings: 2,676 10-Year Growth: 14%

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



For more information visit: https://tea.texas.gov/academics/college-career-and-militaryprep/career-and-technical-education/programs-of-studyadditional-resources

Work-Based Learning and Expanded Learning Opportunities

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

Aligned Industry-Based Certifications

• Educational Aide I



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



Education & Training Cluster

Public Service Endorsement

Teaching & Training Program of Study

> Principles of Education & Training (1 Credit) 9th-10th

Principles of Human Services (1 Credit) 8th

Human Growth & Development (1 Credit) 10th-12th

Instructional Practices in Education & Training (2 Credits) 11th-12th

Practicum in Education & Training (2 Credits) 12th



Engineering Career Cluster

The Engineering career cluster focuses on planning, designing, testing, building, and maintaining of machines, structures, materials, systems, and processes using empirical evidence and science, technology, and math principles. This career cluster includes occupations ranging from mechanical engineer and drafter to electrical engineer and to mapping technician.

Statewide Program of Study: Engineering Foundations

The Engineering Foundations program of study focuses on occupational and educational opportunities associated with a wide range of skills applied in the Engineering industry. Students will design, test, and evaluate projects related to engines, machines, and structures. This program of study incudes applying scientific, mathematical, and empirical evidence to solve problems through innovation, design, construction, operation, and maintenance of different engineering systems.

Secondary Courses for High School Credit

Level 1	 Principles of Applied Engineering 		
Level 2	Introduction to Aerospace (MANENGT1)Robotics 1		
Level 3	Engineering Design & Presentation 1Robotics 2		
Level 4	 Engineering Design & Presentation 2 Aerospace 1 (SCIRD) Aerospace 2 (ENGDPRS) Practicum in STEM 		

Aligned Advanced Academic Courses



AP Calculus AB AP Computer Science A AP Physics 1 AP Statistics

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

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	
Expanded Learning Opportunities	

- Intern at an engineering, robotics, or aerospace company.
- Visit an engineering firm and shadow multiple types of
- engineers.
- Participate in SkillsUSA or TSA
 - Join a local engineering association and attend meetings.

Aligned Industry-Based Certifications

 Autodesk Associate (Certified User) Inventor for Mechanical Design



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





Example Postsecondary Opportunities

Apprenticeships

Industrial Engineering Technician
 Apprenticeship

Associate Degrees

- Manufacturing Engineering Technology/ Technician
- Robotics Technology/Technician

Bachelor's Degrees

- Electrical and Electronics Engineering
- Engineering, General

Master's, Doctoral, and Professional Degrees

- Electrical and Electronics Engineering
- Engineering, General

Additional Stackable IBCs/Licensures

- Professional Engineer (PE License)
- Engineer in Training Certification (EIT)



Example Aligned Occupations

Civil Engineering Technologists and Technicians

Median Wage: \$61,138 Annual Openings: 765 10-Year Growth: 11%

Aerospace Engineers

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

Mechanical Engineers

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

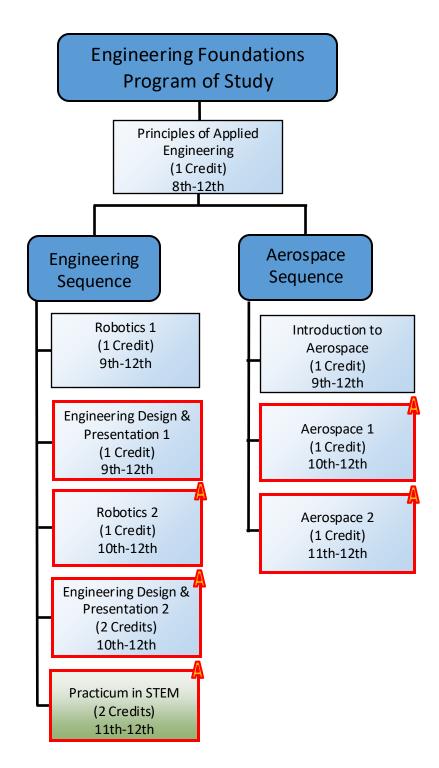


Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024.

Engineering Cluster

B&I Endorsement

Also Satisfies STEM Endorsement





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. This career cluster includes occupations ranging from medical assistant, registered nurse, and physical therapist to forensic science technician and athletic trainer.

Statewide Program of Study: Diagnostic and Therapeutic Services

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

Secondary Courses for High School Credit

- Level 1 Principles of Health Science
 - Athletic Trainer 1 (PRINHLSC)
- Level 2 Medical Terminology
- Level 3 Anatomy & Physiology
 - Medical Microbiology
 - Health Science Theory
 - Health Science Theory (Clinicals)
 - Athletic Trainer 2 (HLSCLIN)
- Level 4 Practicum in Health Science -Medical Assisting -Dental Assisting -Patient Care Technician
 - Athletic Trainer 3 (PRACHLS1)
 - Athletic Trainer 4 (PRACHLS2)

Aligned Advanced Academic Courses

AP	
Dual Credit	

AP Biology AP Chemistry

Health Science Medical Assisting Certificate of Technology Pharmacy Technician Certificate of Technology

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

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities
Expanded Learning Opportunities

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

Aligned Industry-Based Certifications

- Certified Clinical Medical Assistant
- Patient Care Technician
- Registered Dental Assistant X-Ray Certification



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

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Example Postsecondary Opportunities

Apprenticeships

Medical Assistant

Associate Degrees

- Emergency Medical Technology
- Radiologic Technology/Science

Bachelor's Degrees

- Emergency Medical Technology
- Medical Insurance Coding

Master's, Doctoral, and Professional Degrees

- Medicine
- Occupational Therapy

Additional Stackable IBCs/License

Registered Diagnostic Medical Sonographer



Example Aligned Occupations

Medical Assistants

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

Dental Hygienists

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

Physician Assistants

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

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



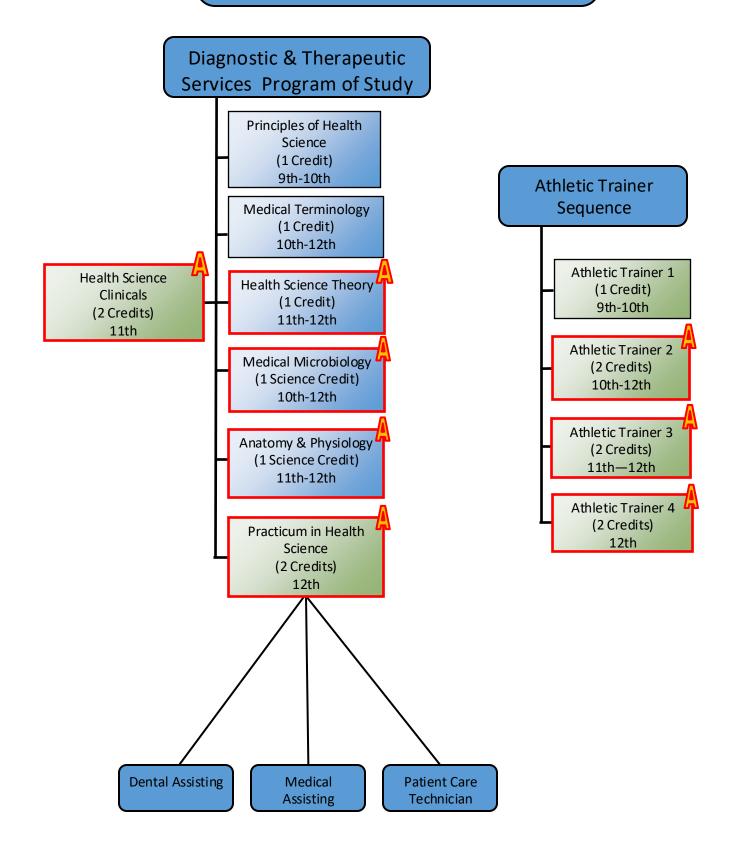
https://tea.texas.gov/academics/college-career-and-militaryprep/career-and-technical-education/programs-of-studyadditional-resources



Health Science Cluster

Public Service Endorsement

Also Satisfies STEM Endorsement





Hospitality and Tourism Career Cluster

The Hospitality and Tourism career cluster focuses on the management, marketing, and operations of restaurants, lodging, attractions, recreation events, and travel-related services. This career cluster includes occupations ranging from reservation and transportation ticket agent to event planner and general manager.

Statewide Program of Study: Culinary Arts

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



Secondary Courses for High School Credit

Level 1	•	Introduction to Culinary Arts

Level 2		Culinary Arts Entrepreneurship 1
Level 3	•	Advanced Culinary Arts
Level 4	•	Practicum in Culinary Arts



AP **AP Chemistry**

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

Work-Based Learning and Expanded Learning Opportunities s and

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

Aligned Industry-Based Certifications

ServSafe Manager



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





Example Postsecondary Opportunities

Associate Degrees

- Culinary Arts
- **Baking and Pastry Arts**

Bachelor's Degrees

- Hotel/Motel Administration/Management
- **Culinary Science**

Master's, Doctoral, and Professional Degrees

- Organizational Leadership
- Foodservice Systems Administration/Management

Additional Stackable IBCs/License

Food Manager License



Example Aligned Occupations

Bakers

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

Chefs and Head Cooks

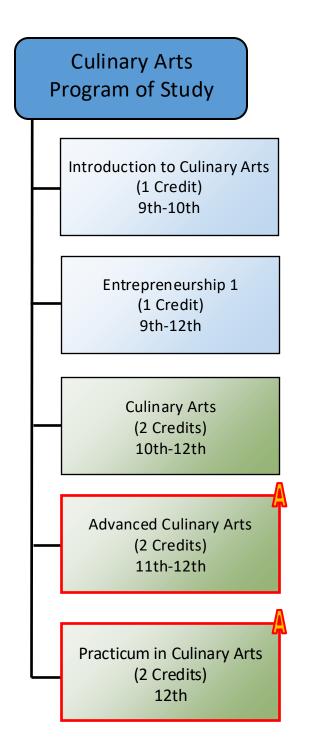
Median Wage: \$44,761 Annual Openings: 950 10-Year Growth: 37%

General and Operations Managers

Median Wage: \$83,220 Annual Openings: 25,450 10-Year Growth: 23%



Hospitality & Tourism Cluster *Business and Industry Endorsement*





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. This career cluster includes occupations ranging from community health workers to cosmetologists and nutritionists.

Statewide Program of Study: Family and Community Services

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





Example Postsecondary Opportunities

Apprenticeships

Community Health Worker Apprentice

Associate Degrees Social Work

Human Development and Family Studies

Bachelor's Degrees

- Social Work
- Human Development and Family Studies

Master's, Doctoral, and Professional Degrees

- Mental Health Counseling
- Marriage and Family Therapy

Additional Stackable IBCs/License

Certified Diabetes Educator



Example Aligned Occupations

Community Health Workers

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

Social and Human Service Assistants

Median Wage: \$38,442 Annual Openings: 3,298 10-Year Growth: 21%

Child, Family, and School **Social Workers**

^camily and Community Services

Median Wage: \$49,398 Annual Openings: 2,342 10-Year Growth: 14%

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



For more information visit: https://tea.texas.gov/academics/college-career-and-militaryprep/career-and-technical-education/programs-of-studyadditional-resources

Work-Based Learning and Expanded Learning Opportunities

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

Aligned Industry-Based Certifications

TBA

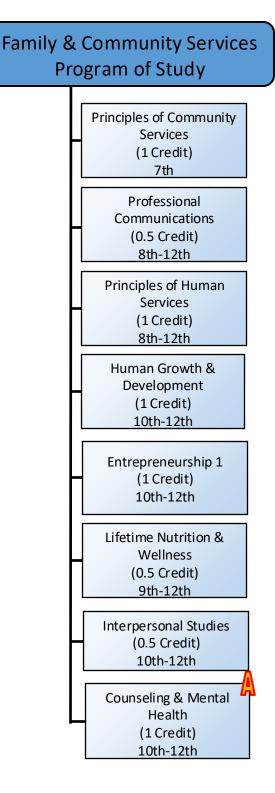


Successful completion of the Family and Community Services program of study will fulfill requirements of the Public Service endorsement.





Human Services Career Cluster Public Service Endorsement





Information Technology Career Cluster

The Information Technology (IT) career cluster focuses on the design, development, support, and management of hardware, software, multimedia, and systems integration services. This career cluster includes occupations ranging from Software Developer and Programmer to Cybersecurity Specialists and Network Analysts.

Statewide Program of Study: Networking Systems

The Networking Systems program of study focuses on occupations and educational opportunities associated with designing and implementing computer and information networks, such as local area networks (LAN), wide area networks (WAN), intranets, extra nets, and other data communications networks. This program of study includes analysis of data processing challenges to implementing and improving computer systems.



Secondary Courses for High School Credit

	Level 1	•	Principles of Information Technology	
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- Level 2 Computer Science 1 Computer Maintenance
 - **AP Computer Science Principles**
 - Entrepreneurship 1
- Level 4 Practicum in Information Technology Practicum in Entrepreneurship

Work-Based Learning and Expanded Learning Opportunities

successful in their role

Participate in a Hackathon

Participate in SkillsUSA or TSA

Aligned Industry-Based Certifications

software

•

Intern at a local education, public service, or technology

organization to develop skills in installing hardware and

Interview a network administrator to learn about their career path and what credentials they earned to be



Example Postsecondary Opportunities

Apprenticeships

Network Engineer Apprenticeship

Associate Degrees

- Computer Systems Networking and Telecommunications
- Network and System Administration

Bachelor's Degrees

- **Computer and Information Sciences**
- Information Technology

Master's, Doctoral, and Professional Degrees

- **Computer Science**
- Information Technology

Additional Stackable IBCs/License

Aruba Certified Mobility Associate (ACMA)



Example Aligned Occupations

Computer Network Support Specialists

Median Wage: \$65,646 Annual Openings: 1,634 10-Year Growth: 19%

Computer Systems Analysts

Median Wage: \$101,716 Annual Openings: 4,985 10-Year Growth: 19%

Network and Computer Systems Administrators

Median Wage: \$85,375 Annual Openings: 2,900 10-Year Growth: 20%



Data Source: TexasW ages, Texas Workforce Commission. Retrieved 3/8/2024. For more information visit:

https://tea.texas.gov/academics/college-career-and-militaryprep/career-and-technical-education/programs-of-studyadditional-resources



Work-Based

Learning Activities

Expanded Learning

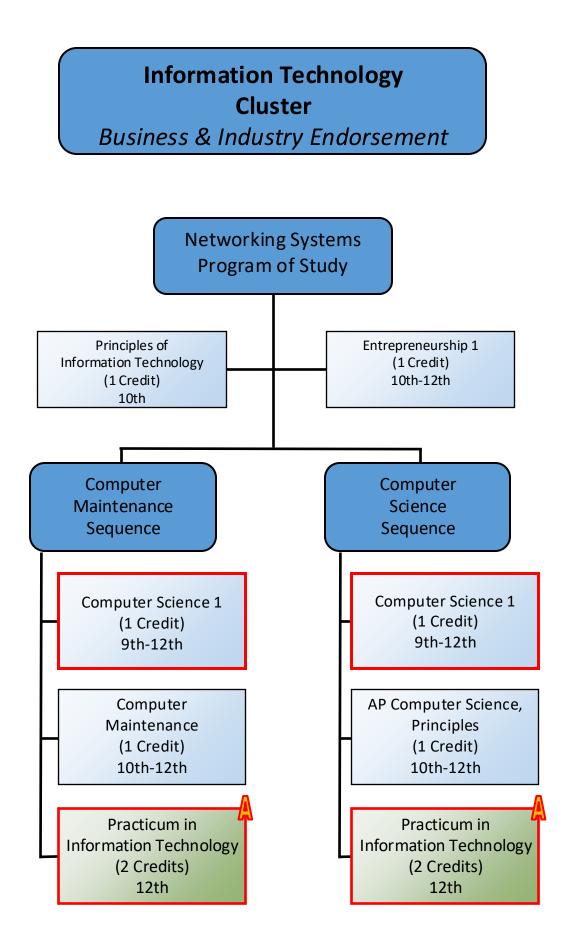
Opportunities

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



TBA

Vetworking Systems





Information Technology Career Cluster

The Information Technology (IT) career cluster focuses on the design, development, support, and management of hardware, software, multimedia, and systems integration services. This career cluster includes occupations ranging from Software Developer and Programmer to Cybersecurity Specialists and Network Analysts.

Statewide Program of Study: Programming and Software Development

The Programming and Software Development program of study focuses on occupational and educational opportunities associated with researching, designing, developing, testing, and 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 includes creating, modifying, and testing the codes, forms, and script that allow computer applications to run.



Secondary Courses for High School Credit

- **Level 1** Principles of Information Technology
- Level 2 . Computer Science 1
 - AP Computer Science Principles
 - Entrepreneurship 1

Level 3 • AP Computer Science A

- Level 4 Practicum in Audio/Video Production
 - Practicum in Information Technology
 - Practicum in Science, Technology, Engineering, & Mathematics
 - Practicum in Entrepreneurship

Aligned Advanced Academic Courses

AP or IB

AP Calculus AB AP Statistics

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

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	 Intern at a local IT company to develop skills in programming and coding Shadow a software developer to learn how they create and improve software to support efficient processes at their company
Expanded Learning Opportunities	Program and create a gameParticipate in SkillsUSA or TSA

Aligned Industry-Based Certifications

TBA



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





Example Postsecondary Opportunities

Apprenticeships

Computer Programmer Apprenticeship

Associate Degrees

 Computer Programming
 Web Page, Digital/Multimedia and Information Resources Design

Bachelor's Degrees

- Data Science
- Computer Engineering

Master's, Doctoral, and Professional Degrees

Management Science

Computer Software Engineering

Additional Stackable IBCs/License

AWS Certified Developer Associate



Example Aligned Occupations

Computer User Support Specialists

Median Wage: \$51,411 Annual Openings: 5,757 10-Year Growth: 21%

Software Developers

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

Computer Programmers

Median Wage: \$87,997 Annual Openings: 1,176 10-Year Growth: 4%

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



For more information visit: https://tea.texas.gov/academics/college-career-and-militaryprep/career-and-technical-education/programs-of-studyadditional-resources

Information Technology Cluster *Business & Industry Endorsement*

Also Satisfies STEM Endorsement

Programming & Software Development Program of Study Principles of Information Technology (1 Credit) 9th-10th Entrepreneurship 1 (1 Credit) 10th-12th **Computer Science 1** (1 Credit) 9th-12th AP Computer Science, Principles (1 Credit) 10th-12th AP Computer Science A (1 Credit) 11th-12th Practicum in Information Technology (2 Credits) 12th



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. This career cluster includes occupations ranging from police officer and firefighter to political scientist and lawyer.

Statewide Program of Study: Law Enforcement

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

	Seco Level 1	 ndary Courses for High School Credit Principles of Law, Public Safety, Corrections, & Security
	Level 2	Law Enforcement 1Criminal Investigation
	Level 3	 Law Enforcement 2 Correctional Services Counseling and Mental Health
	Level 4	 Forensic Science Practicum in Law, Public Safety, Corrections, & Security Law Academy 1 & Law Academy 2 (PRACLPS1)

Aligned Advanced Academic Courses

Dual Credit Criminal Justice Core, Occupational Certificate

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

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities
Expanded Learning Opportunities

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

Aligned Industry-Based Certifications

IAED Emergency Telecommunicator



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





Example Postsecondary Opportunities

ApprenticeshipsSecurity Specialist

Security Specia

Associate Degrees

Criminal JusticeLaw Enforcement

Bachelor's Degrees

- Forensic Science
- Criminal Justice

Master's, Doctoral, and Professional Degrees

- Criminal Justice
- Criminology and Criminal Justice

Additional Stackable IBCs/Licensures

- Jailer Basic County Corrections
- Basic Telecommunicator



Example Aligned Occupations

Police and Sheriff's Patrol Officers

Median Wage: \$64,373 Annual Openings: 5,424 10-Year Growth: 13%

Detectives and Criminal Investigators

Median Wage: \$82,090 Annual Openings: 1,536 10-Year Growth: 8%

First-Line Supervisors of Police and Detectives

Median Wage: \$97,571 Annual Openings: 5,461 10-Year Growth: 12%

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



For more information visit: https://tea.texas.gov/academics/college-career-and-militaryprep/career-and-technical-education/programs-of-studyadditional-resources

Law Enforcement Program of Study

Principles of Law, Public Safety, Corrections, & Security (1 Credit) 9th-12th

Criminal Investigation (1 Credit) 10th-12th

> Law Enforcement 1 (1 Credit) 10th-12th

> Law Enforcement 2 (1 Credit) 10th-12th

Correctional Services (1 Credit) 10th-12th

Counseling & Mental Health (1 Credit) 10th-12th

> Forensic Science (1 Science Credit) 10th-12th

Practicum in Law, Public Safety, Corrections, & Security (2 Credits) 11th-12th

Law & Public Service Cluster Public Service Endorsement



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 process engineering. This career cluster includes occupations ranging from welder and machinist to industrial engineering technician and semi-conductor processing technician.

Statewide Program of Study: Robotics and Automation Technology

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

Secondary Courses for High School Credit

Level 1	 Principles of Manufacturing Principles of Applied Engineering
Level 2	Robotics 1
Level 3	 Robotics 2 Engineering Design & Presentation 1
Level 4	Practicum in Manufacturing

Work-Based Learning and Expanded Learning Opportunities

Shadow a PLC programmer

Tour a manufacturing facility

Participate in SkillsUSA or TSA

Aligned Industry-Based Certifications

manufacturing plant

Intern with a robotics technician working at a

Build a robot and participate in a robotics competition



Example Postsecondary Opportunities

Associate Degrees

- Instrumentation Technology
- Industrial Technology
- Robotics Technology
- Automation Engineer Technology

Bachelor's Degrees

- Mechanical Engineering
- Electrical Electronics Engineering
- Electrical, Electronic, and Communications Engineering Technology
- Electromechanical Engineering Technology

Master's, Doctoral, and Professional Degrees

- Mechanical Engineering
- Engineering/Industrial Management
- Industrial Engineering
- Electrical and Electronics Engineering



Example Aligned Occupations

Computer Numerically Controlled Tool Operators

Median Wage: \$46,353 Annual Openings: 1,146 10-Year Growth: 10%

Semiconductor Processing Technicians

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

Industrial Engineers

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

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TBA

Work-Based

Learning Activities

Expanded Learning

Opportunities

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



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

For more information visit:



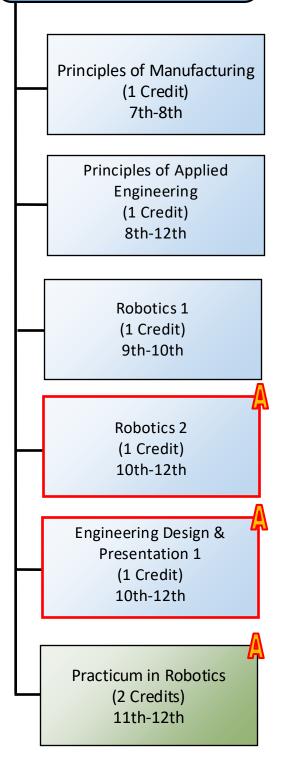
https://tea.texas.gov/academics/college-career-and-militaryprep/career-and-technical-education/programs-of-studyadditional-resources

Manufacturing Cluster

Business & Industry Endorsement

Also Satisfies STEM Endorsement

Robotics & Automation Technology Program of Study





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 process engineering. This career cluster includes occupations ranging from welder and machinist to industrial engineering technician and semi-conductor processing technician.

Statewide Program of Study: Welding

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



Secondary Courses for High School Credit

Level 1	Principles of ManufacturingIntroduction to Welding
Level 2	Welding 1Entrepreneurship 1
Level 3	Welding 2
Level 4	Practicum in Manufacturing

Work-Based Learning and Expanded Learning Opportunities

Participate in SkillsUSA or TSA

Aligned Industry-Based Certifications

Intern for a local welding company

Participate in a welding project that benefits the

Job shadow a welder

Tour a welding shop

community



Example Postsecondary Opportunities

Apprenticeships

Welding

Associate Degrees

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

Bachelor's Degrees

- Welding Technology
- Construction Management
- Project Management
- Building/Construction Site Management

Master's, Doctoral, and Professional Degrees

- Engineering
- Engineering/Industrial Management
- Manufacturing Engineering
- Construction Engineering



Example Aligned Occupations

Welders, Cutters, Solderers, and Brazers

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

First-Line Supervisors of Production and Operating Workers

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

Industrial Production Managers

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

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



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Work-Based

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Learning Activities

Expanded Learning

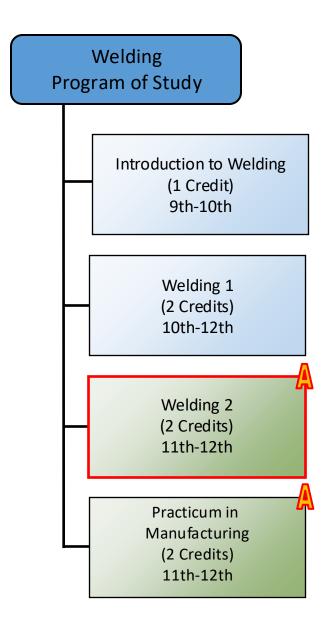
Opportunities

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



Manufacturing Cluster

Business & Industry Endorsement





Transportation, Distribution, and Logistics Career Cluster

The Transportation, Distribution, and Logistics career cluster focuses on planning, management, and movement of people, materials, and goods by road, pipeline, air, rail, and water. It also includes transportation infrastructure planning and management, logistics services, and mobile equipment and facility maintenance. This career cluster includes occupations ranging from automotive mechanic, avionics technician, and automotive entrepreneur to pilots and logistics planning professionals.

Statewide Program of Study: Automotive and Collision Repair

The Automotive and Collision Repair program of study focuses on the occupational and educational opportunities associated with servicing, repairing, and refinishing various types of vehicles. This program of study includes diagnosing and servicing vehicles and learning about processes, technologies, and materials used in reconstructing vehicles.

Secondary Courses for High School Credit				
Level 2	Automotive BasicsEntrepreneurship 1			
Level 3	 Automotive Technology 1: Maintenance & Light Repair 			
Level 4	Automotive Technology 2: Automotive ServiceExtended Practicum in Transportation Systems			



Example Postsecondary Opportunities

Apprenticeships



Associate Degrees

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

Bachelor's Degrees

- Autobody/Collision and Repair Technology
- Heavy Equipment Maintenance Technology

Additional Stackable IBCs/License

Automobile and Light Truck Certification (A1 – A9)



Example Aligned Occupations

Automotive Service Technicians and Mechanics

Median Wage: \$44,809 Annual Openings: 6,285 10-Year Growth: 10%

Bus and Truck Mechanics and Diesel Engine Specialists

Median Wage: \$50,967 Annual Openings: 3,096 10-Year Growth: 19%

First-Line Supervisors of Mechanics, Installers, and Repairers

Median Wage: \$66,535 Annual Openings: 5,019 10-Year Growth: 19%

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



For more information visit: https://tea.texas.gov/academics/college-career-and-militaryprep/career-and-technical-education/programs-of-studyadditional-resources

Work-Based Learning and Expanded Learning Opportunities

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

Aligned Industry-Based Certifications

ASE Refrigerant Recovery and Recycling

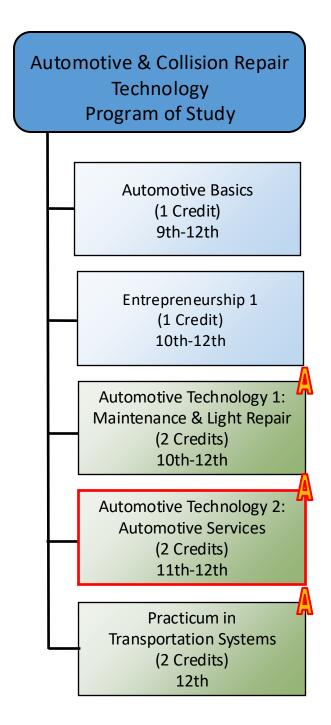


Successful completion of the Automotive and Collision Repair program of study will fulfill requirements of the Business and Industry endorsement.



Transportation, Distribution, & Logistics Cluster

Business & Industry Endorsement





Transportation, Distribution, and Logistics Career Cluster

The Transportation, Distribution, and Logistics career cluster focuses on planning, management, and movement of people, materials, and goods by road, pipeline, air, rail, and water. It also includes transportation infrastructure planning and management, logistics services, and mobile equipment and facility maintenance. This career cluster includes occupations ranging from automotive mechanic, avionics technician, and automotive entrepreneur to pilots and logistics planning professionals.

Statewide Program of Study: Distribution, Logistics, and Warehousing

The Distribution, Logistics and Warehousing program of study focuses on educational and occupational opportunities associated with business planning and management aspects of distribution, logistics and warehousing. This program of study includes exploration of the history, laws, regulations, and common practices used in the logistics of warehousing and distribution systems.

Sec	Secondary Courses for High School Credit				
Level 1	Principles of Distribution & Logistics				
Level 2	 Concepts of Distribution & Logistics Technology Management of Transportation Systems 				
Level 3	Distribution & Logistics				



Dual Credit

Global Logistics and Supply Chain Management Certificate of Technology

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

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	 Intern at a fulfillment center to learn about planning and distribution of goods Shadow an operations manager at a local company's warehouse to learn about the people and technology resources necessary to implement an operations plan
Expanded Learning Opportunities	 Attend transportation, distribution and logistics expos Join the Transportation Association, Supply Chain Association, or Freight Forwarder and attend events with students

Aligned Industry-Based Certifications

TBA



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Successful completion of the Distribution, Logistics, and Warehousing program of study will fulfill requirements of the Business and Industry endorsement.





Example Postsecondary Opportunities

Apprenticeships

Motor Transport Operator Apprenticeship



- Logistics, Materials, and Supply Chain Management
- Transportation and Mobility Management

Bachelor's Degrees

- Transportation and Mobility Management
- Logistics and Supply Chain Management

Master's, Doctoral, and Professional Degrees

Supply Chain Management

Transportation and Mobility Management

Additional Stackable IBCs/License

- Commercial Driver's License
- Certified Supply Chain Professional



Example Aligned Occupations

Shipping, Receiving, and Inventory Clerks

Median Wage: \$36,363 Annual Openings: 7,293 10-Year Growth: 7%

Production, Planning, and Expediting Clerks

Median Wage: \$48,887 Annual Openings: 4,415 10-Year Growth: 21%

Transportation, Storage, and Distribution Managers

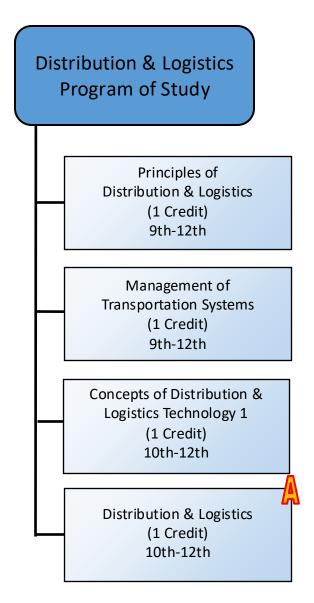
Median Wage: \$97,989 Annual Openings: 1,377 10-Year Growth: 22%

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



Transportation, Distribution, & Logistics Cluster

Business & Industry Endorsement

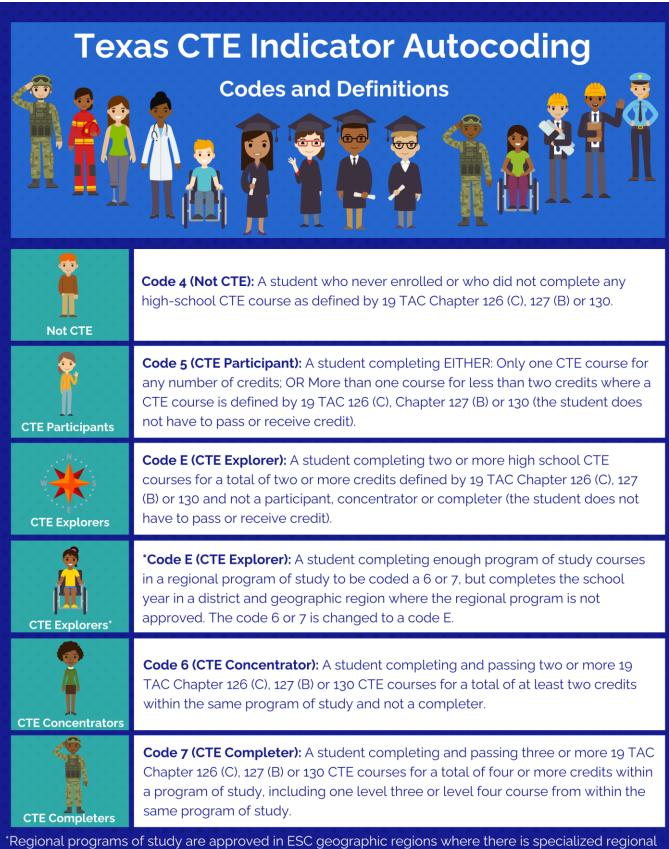


TECHNICAL DUAL CREDIT PROGRAMS

Barbering Electrical Technician EMT Cosmetology Operator Diesel Truck Technician Global Logistics HVAC Technician Medical Assistant* Pharmacy Technician Pipefitting Plumbing Welding Operator*

*See CTE Counselor for more details





*Regional programs of study are approved in ESC geographic regions where there is specialized regional labor market demand for specific occupations. Students concentrating (code 6) and/or completing (code 7) a program of study outside of approved geographic ESC regions are assigned a code E (Explorer).

CTE MASTER CONTACT LIST

Campus	First Name	Last Name	Email Address	Cluster	Room #	Ext.
			Middle Schoo	bls		
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