



DUAL CREDIT PATHWAYS

Connecting High School to College and Career Success

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lamarpa.edu

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How Dual Credit Helps High Schools Meet Their Goals

Accountability

Lamar State College Port Arthur (LSCPA) partners with districts to help students achieve College, Career, and Military Readiness (CCMR) indicators. Dual credit supports these goals by:

- Assisting students in meeting TSI requirements
- Completing 9 hours of CTE coursework or 3 hours of ELA/Math
- Earning industry-recognized certifications
- Attaining an associate degree while still in high school

This guide includes multiple suggested pathways across TEA career clusters and several programs of study. Each pathway is aligned with TEA's Programs of Study and can be adapted to fit your district's specific needs. LSCPA will work with you to update crosswalks as needed, ensuring curriculum stays aligned. Many pathways also allow students to complete a college credential before graduation.

Flexibility

Dual credit courses can be offered in multiple formats: on your campus, at LSCPA, or fully online. In fact, several pathways are available completely online.

Some high school teachers may already meet the credentialing requirements to teach LSCPA courses. If so, we can review their credentials and discuss options for them to deliver dual credit instruction directly to your students.

Funding

LSCPA is committed to making dual credit accessible and affordable.

- CTE Tuition Waivers: When a CTE course is taught at the high school campus, by a credentialed high school instructor, and using high school equipment, LSCPA waives college tuition for that course.
- House Bill 8 Tuition Waivers: Students who qualify for free or reduced lunch are eligible for tuition waivers under HB 8, reducing the cost of dual credit.

These options give districts flexibility in offering low- or no-cost programs, ensuring financial barriers don't keep students from earning college credit or workforce credentials while still in high school.

Next Steps: Partnering With LSCPA

The most effective way to begin is with a conversation. Our team is committed to learning about your district's unique K-12 goals and identifying how LSCPA's dual credit pathways can align with your academic, career, and postsecondary objectives.

Together, we can:

- Review your current course offerings and programs of study
- Explore opportunities to map K-12 pathways into higher education pathways
- Discuss how dual credit can support your accountability and CCMR goals
- Identify funding strategies to maximize student participation at little to no cost
- Tailor pathways to meet the needs of your students and community

We invite you to contact us directly to set up a meeting. Whether in person or virtually, our goal is to ensure that every conversation moves us closer to a clear, aligned plan for your district.

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TSI Admission Standards

TSI requirements for dual credit do not differ in any way shape or form from traditional students in that they must meet the standards that any core course requires (with the exception of STARR exemptions).

TSI Exemptions

There are various exemptions for the TSI, including SAT, ACT, as well as STAAR EOC score exemptions. Here are the SAT and ACT exemptions. The recent changes include the removal of a cumulative score requirement for the SAT. This means that students can use an individual verbal or math score from either test. A student can use ACT English in combination with SAT Math to be TSI-ready. The ACT can use individual scores; however, the composite score applies.

Required TSIA2 Scores:

ELAR 945 or <945 and 5 (Diagnostic)
Essay 5
Math 950

Required ACT Scores:

Math 19
English 19
Composite 23

Required SAT Scores:

EBRW 480
Math 530

STAAR/EOC Scores:

English III EOC **Meets Grade Level Performance** (4000 or higher)

Algebra II EOC **Meets Grade Level Performance** (4000 or higher) and passed Algebra 2 HS

Beginning May 16, 2024, all dual credit students must follow updated TSI rules: **non-degree-seeking students** (those without a filed college degree plan) may enroll in dual credit without demonstrating college readiness, and institutions **may not require** TSI or alternative measures; **degree-seeking students** must demonstrate readiness through an approved TSI exemption, TSIA2 scores, or Texas First Diploma eligibility, with PSAT, English II, and Algebra I EOCs no longer valid; and students needing support may enroll in **College Connect courses**, which provide embedded readiness support if they are non-degree-seeking and under 15 semester credit hours, with limited math/communications eligibility beyond 15 SCHs—campuses must classify students correctly, verify readiness for degree-seekers, and update communications and MOUs accordingly.



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 1**
 - Principles of Transportation Systems
 - Basic Collision Repair and Refinishing
 - Small Engine Technology I

- Level 2**
 - Introduction to Transportation Technology
 - Small Engine Technology II
 - Occupational Safety and Environmental Technology I
 - Automotive Basics
 - Collision Repair
 - Collision Repair + Advanced Transportation Systems Laboratory
 - Entrepreneurship I

- Level 3**
 - Energy and Power of Transportation Systems
 - Automotive Technology I: Maintenance and Light Repair
 - Paint and Refinishing
 - Paint and Refinishing + Advanced Transportation Systems Laboratory

- Level 4**
 - Automotive Technology II: Automotive Service
 - Automotive Technology II: Automotive Service+ Advanced Transportation Systems Laboratory
 - Customer Service Representative (TBD)
 - Practicum in Transportation Systems
 - Practicum in Transportation Systems + Extended Practicum in Transportation Systems
 - Practicum in Entrepreneurship
 - Practicum in Entrepreneurship + Extended Practicum in Entrepreneurship
 - Career Preparation for Programs of Study
 - Career Preparation for Programs of Study + Extended Career Preparation

Aligned Advanced Academic Courses

Dual Credit Dual credit offerings will vary by local education agency.

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 automotive technician at a car dealership
- Intern at a rental car company and assist technicians with vehicle maintenance
- Work at a local automotive repair shop and hold both customer service duties and automatic repair duties

Expanded Learning Opportunities

- Join a related automotive association and attend events
- Participate in SkillsUSA

Aligned Industry-Based Certifications

- ASE Entry-Level Automobile Maintenance and Light Repair (MR)
- ASE Entry-Level Automobile Automatic Transmission/Transaxle (AT)
- ASE Entry-Level Automobile Brakes (BR)
- ASE Entry-Level Automobile Electronic/Electrical Systems (EE)
- ASE Entry-Level Automobile Engine Performance (EP)
- ASE Entry-Level Automobile Engine Repair (ER)
- ASE Entry-Level Automobile Heating and Air Conditioning (AC)
- ASE Entry-Level Automobile Manual Drive Train and Axles (MD)
- ASE Entry-Level Automobile Service Technology
- ASE Entry-Level Automobile Suspension and Steering (SS)
- ASE Entry-Level Collision Mechanical and Electrical Components (ME)
- ASE Entry-Level Collision Non-Structural Analysis and Damage Repair (SR)
- ASE Entry-Level Collision Painting and Refinishing (PR)
- ASE Entry-Level Collision Structural Analysis and Damage Repair
- ASE Refrigerant Recovery and Recycling
- Principles of Small Engine Technology Certification
- Small Engine Technology
- Industrial Technology Maintenance (ITM) - Basic Mechanical Systems
- Industrial Technology Maintenance (ITM) - Maintenance Operations
- Industrial Technology Maintenance (ITM) - Electrical Systems
- Industrial Technology Maintenance (ITM) - Maintenance Welding
- Industrial Technology Maintenance (ITM) - Basic Pneumatic Systems

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



Example Postsecondary Opportunities

Apprenticeships

- Automotive Technician Apprenticeship



Associate Degrees

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

Bachelor's Degrees

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

Additional Stackable IBCs/License

- Automobile and Light Truck Certification (A1 – A9)



Example Aligned Occupations

Automotive Service Technicians and Mechanics

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

Bus and Truck Mechanics and Diesel Engine Specialists

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-military-prep/career-and-technical-education/programs-of-study-additional-resources>

Suggested Automotive Technology Crosswalk

9th Grade						10th Grade						
ISD	PEIMS #	CR	LSCPA	SCH	Online	ISD	PEIMS #	CR	LSCPA	SCH	Online	
Automotive Basics	13039550	1	No dual credit courses			Automotive Technology I: Maintenance and Light Repair	13039600	2	AUMT 1405 - Introduction to Automotive Technology (F)	4		
									AUMT 1407 - Automotive Electrical Systems (S)	4		
TOTAL CREDITS		1		0		TOTAL Credits		2		8		
11th Grade						12th Grade						
ISD	PEIMS #	CR	LSCPA	SCH	Online	ISD Course	PEIMS #	CR	LSCPA	SCH	Online	
Automotive Technology II	13039700	2	AUMT 1410 - Automotive Brake Systems (F)	4		Automotive Technology II Lab	13039710	3	We could explore additional courses			
			AUMT 1416 - Automotive Suspension and Steering Systems (S)	4								
TOTAL CREDITS		2		8		TOTAL CREDITS		3		0		
ISD Total Credits		8							LSCPA TOTAL Semester Credit Hours		16	

Program Information
The courses in this program can be applied to the Automotive Technology Certificate. All courses are WECM courses. In most cases, ISD Automotive instructors can be credentialed and mentored to teach these courses.

LSCPA Course	LSCPA Course Name
AUMT 1405	Introduction to Automotive Technology
AUMT 1407	Automotive Electrical Systems
AUMT 1410	Automotive Brake Systems
AUMT 1416	Automotive Suspension and Steering Systems

Endorsement: Business and Industry
Program of Study: Automotive
Cluster: Transportation, Distribution, and Logistics

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.



Secondary Courses for High School Credit

- Level 1**
 - Principles of Arts, Audio/Video Technology, and Communications
 - Digital Communications in the 21st Century
 - Professional Communications
 - Web Communications

- Level 2**
 - Audio/Video Production I
 - Audio/Video Production I + Audio/Video Production I Lab
 - Digital Audio Technology I
 - Digital Design and Media Production
 - Entrepreneurship I

- Level 3**
 - Audio/Video Production II
 - Audio/Video Production II + Audio/Video Production II Lab
 - Digital Audio Technology II

- Level 4**
 - AI Video Editing (TBD)
 - Practicum in Audio/Video Production
 - Practicum in Audio/Video Production + Extended Practicum in Audio/Video Production
 - Practicum in Digital Audio Technology
 - Practicum in Entrepreneurship
 - Practicum in Entrepreneurship + Extended Practicum in Entrepreneurship
 - Career Preparation for Programs of Study
 - Career Preparation for Programs of Study + Extended Career Preparation

Aligned Advanced Academic Courses

AP or IB	IB Film SL IB Film HL
Dual Credit	Dual credit offerings will vary by local education agency.

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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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 Print and Digital Media Publication Using Adobe InDesign
- Adobe Certified Professional in Visual Design
- Adobe Certified Professional in Visual Design Using Adobe Photoshop
- Audio-Visual Communications - Job Ready
- Broadcasting and Journalism
- Digital Video Production Foundations

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.



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

Suggested AV Crosswalk

9th Grade						10th Grade					
ISD	PEIMS #	CR	LSCPA	SCH	Online	ISD	PEIMS #	CR	LSCPA	SCH	Online
Principles of Arts, A/V, Tech and Communciations	13008200	1				Audio/Video Production I	13008500	1	RTVB 1309 -F	3	
									RTVB 1321-S	3	
TOTAL CREDITS		1		0		TOTAL Credits		1		6	
11th Grade						12th Grade					
ISD	PEIMS #	CR	LSCPA	SCH	Online	ISD	PEIMS #	CR	LSCPA	SCH	Online
Audio/Video Production II	13008600	1	FLMC 1304-F	3		Practicum in Audio/ Video Production	13008700	2	RTVB 2337-F	3	
			MUSC 1331-S	3					RTVB 2330-S	3	
			MUSC 1325-S	3					FLMC 1331-S	3	
TOTAL CREDITS		1		9		TOTAL CREDITS		2		9	
ISD Total Credits		5				TOTAL Semester Credit Hours				24	

Program Information
The courses in this program complete the Level 1 Certificate for Audio/Visual Production and progress students towards the AAS in Audio Video Production. All courses are WECM courses. In most cases, ISD AV instructors can be credentialed and mentored to teach these courses.

LSCPA Course	LSCPA Course Name
RTVB 1309	Audio Production I
RTVB 1321	TV Field Production I
FLMC 1304	Lighting for Film or Video
MUSC 1331	MIDI
MUSC 1325	Acoustics
RTVB 2337	Audio Engineering II
RTVB 2330	Film and Video Editing
FLMC 1331	Video Graphics and Visual Effects I

Endorsement: Business and Industry
Program of Study: Digital Communications
Cluster: The Arts, A/V Technology and Communications

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.



Secondary Courses for High School Credit

- | | |
|----------------|--|
| Level 1 | <ul style="list-style-type: none"> Principles of Business, Marketing, and Finance Business Information Management I Business Information Management I + Business Lab |
| Level 2 | <ul style="list-style-type: none"> Virtual Business Business Law Business Information Management II Business Information Management II + Business Lab Entrepreneurship I |
| Level 3 | <ul style="list-style-type: none"> Business Management Global Business Human Resources Management |
| Level 4 | <ul style="list-style-type: none"> Statistics and Business Decision Making Practicum in Business Management Practicum in Business Management + Extended Practicum in Business Management Practicum in Entrepreneurship Practicum in Entrepreneurship + Extended Practicum in Entrepreneurship Career Preparation for Programs of Study Career Preparation for Programs of Study + Extended Career Preparation |

Aligned Advanced Academic Courses

AP or IB	<ul style="list-style-type: none"> AP Microeconomics AP Statistics IB Economics SL IB Economics HL
Dual Credit	Dual credit offerings will vary by local education agency.

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	<ul style="list-style-type: none"> Intern at local business in the HR department Shadow the COO of a local business or chamber of commerce
Expanded Learning Opportunities	<ul style="list-style-type: none"> Participate in BPA, DECA, FBLA, or related UIL events Explore student membership in related professional organizations

Aligned Industry-Based Certifications

- | | |
|---|---|
| <ul style="list-style-type: none"> Administrative Assisting Certified Associate in Project Management (CAPM) Entrepreneurship and Small Business General Management MB-920: Microsoft Dynamics 365 Fundamentals Finance and Operations Apps Microsoft Office Specialist 2016 Master Microsoft Office Specialist: Microsoft Access Expert (Access 2019) | <ul style="list-style-type: none"> Microsoft Office Specialist: Microsoft Excel Expert (Excel 2019) Microsoft Office Specialist: Microsoft Word Expert (Word 2019) Project Management Institute (PMI) Project Management Ready Business of Retail: Certified Specialist Customer Service and Sales: Certified Specialist Stukent Social Media Marketing Certification |
|---|---|

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.



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

Suggested Business Information Management

9th Grade						10th Grade					
ISD	PEIMS #	CR	LSCPA	SCH	Online	ISD	PEIMS #	CR	LSCPA	SCH	Online
						Business Information Management I	13011400	1	ITSW 1301 (F)	3	
					ITSW 1304 (S)				3		
					ITSW 1310 (S)				3		
TOTAL Credits						TOTAL Credits					
11th Grade						12th Grade					
ISD	PEIMS #	CR	LSCPA	SCH	Online	ISD Course	PEIMS #	CR	LSCPA	SCH	Online
Business Information Management II	130011500	1	POFT 1313 (F)	3							
			POFT 1309 (S)	3							
TOTAL CREDITS						TOTAL CREDITS					
ISD Total Credits						LSCPA TOTAL Semester Credit Hours					
2						15					

Program Information
Students can start and complete these courses in any grade. The courses in this program can be applied to multiple level 1 certificates after high school graduation. These courses are WECM courses. In most cases, ISD BIM instructors can be credentialed and mentored to teach these courses.

LSCPA Course	LSCPA Course Name
ITSW 1301	Introduction to Word Processing
ITSW 1304	Introduction to Spreadsheets
ITSW 1310	Introduction to Presentation Graphics Software
POFT 1313	Professional Workforce Preparation
POFT 1309	Administrative Office Procedures I

(F) Fall
(S) Spring

Endorsement: Business and Industry
Program of Study: Business Management
Cluster: Business, Marketing, and Finance



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	<ul style="list-style-type: none"> Principles of Health Science Principles of Diagnostic Healthcare Principles of Therapeutic Healthcare Principles of Allied Health Introduction to Dental Science Introduction to Imaging Technology Introduction to Pharmacy Science
Level 2	<ul style="list-style-type: none"> Medical Terminology Allied Health Therapeutic Services Dental Anatomy and Physiology Disaster Response Imaging Technology I Pharmacy I
Level 3	<ul style="list-style-type: none"> Anatomy and Physiology Medical Microbiology Medical Assistant Emergency Medical Technician–Basic Clinical Ethics Dental Equipment and Procedures Health Science Theory Health Science Theory + Health Science Clinical Respiratory Therapy I Imaging Technology II Pharmacy II
Level 4	<ul style="list-style-type: none"> Mathematics for Medical Professionals Pathophysiology Pharmacology Respiratory Therapy II Optical Technician Sterile Processing (TBD) Practicum in Health Science Practicum in Health Science + Extended Practicum in Health Science Career Preparation for Programs of Study Career Preparation for Programs of Study + Extended Career Preparation

Aligned Advanced Academic Courses

AP or IB	AP Biology IB Biology SL IB Biology HL	AP Chemistry IB Chemistry SL IB Chemistry HL
Dual Credit	Dual credit offerings will vary by local education agency.	

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.

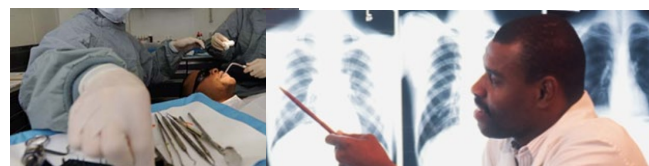
Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	<ul style="list-style-type: none"> Intern with a medical assistant at a community clinic, hospital, assisted living, or long-term care facility Participate in job shadowing experiences such as Emergency Medical Services (EMS) ride along or hospital/clinical job
Expanded Learning Opportunities	<ul style="list-style-type: none"> 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 Cardiographic Technician
- Certified Clinical Medical Assistant
- Certified Dental Assistant
- Certified EKG Technician
- Certified Nurse Aide (CNA)
- Certified Occupational Therapy Assistant
- ECG Technician
- Emergency Medical Technician–Basic
- Limited Medical Radiologic Technologist
- Medical Assistant
- Medical Laboratory Assistant
- Medical Laboratory Technician
- Nationally Registered Certified EKG Technician
- Patient Care Technician
- Pharmacy Technician
- Phlebotomy Technician
- Registered Dental Assistant X-Ray Certification
- Emergency Medical Responder
- Certified Respiratory Therapist

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



Example Postsecondary Opportunities

Apprenticeships

- Medical Assistant

Associate Degrees

- Emergency Medical Technology
- Radiologic Technology/Science

Bachelor's Degrees

- Emergency Medical Technology
- Medical Insurance Coding

Master's, Doctoral, and Professional Degrees

- Medicine
- Occupational Therapy

Additional Stackable IBCs/License

- Registered Diagnostic Medical Sonographer



Example Aligned Occupations

Medical Assistants

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

Dental Hygienists

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

Physician Assistants

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

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



For more information visit:

<https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources>

Suggested Patient Care Technician Crosswalk

9th Grade						10th Grade					
ISD	PEIMS #	CR	LSCPA	SCH	Online	ISD	PEIMS #	CR	LSCPA	SCH	Online
Principles of Health Science	13020200	1	HPRS 1201 - Introduction to Health Professions (F)	2	Yes	Lifetime Nutrition and Wellness	13024500	0.5	BIOL/HECO 1322- Nutrition and Diet Therapy	0	Yes
			BIOL/HECO 1322- Nutrition and Diet Therapy (S)	3		Medical Terminology	13020300	1	HITT 1305 - Medical Terminology	3	
TOTAL CREDITS		1		5		TOTAL Credits		1.5		3	
11th Grade						12th Grade					
ISD	PEIMS #	CR	LSCPA	SCH	Online	ISD Course	PEIMS #	CR	LSCPA	SCH	Online
Health Science Theory	13020400	1	NURA 1301 - Nurse Aide for Health Care	3		Practicum in Health Science	13020500	2	PLAB 1223 - Phlebotomy	2	
Health Science Clinical	13020410	2	NURA 1160 - Clinical Nursing Assistant/Aide	1					ECRD 1211 - Electrocardiography (F)	2	
									PLAB 1160 - Clinical Phlebotomy	1	
TOTAL CREDITS		3		4		TOTAL CREDITS		2		5	
ISD Total Credits		7.5							LSCPA TOTAL Semester Credit Hours	17	

Program Information
The courses in this program can be applied to the Patient Care Technician Certificate. Most courses are WECM courses. In most cases, ISD Health Science instructors can be credentialed and mentored to teach these courses. The BIOL/HECO course is an ACGM course. It requires a Master's degree in biology or nutrition.

LSCPA Course	LSCPA Course Name
HITT 1305	Medical Terminology
BIOL 1322 or HECO 1322	Nutrition & Diet Therapy
HPRS 1201	Introduction to Health Professions
NURA 1301	Nurse Aide for Health Care
NURA 1160	Clinical Nursing Assistant/Aide
ECRD 1211	Electrocardiography
PLAB 1223	Phlebotomy
PLAB 1160	Clinical Phlebotomy

(F) Fall
(S) Spring

Endorsement: Public Service
Program of Study: Nursing Science
Cluster: Health Science



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 architects, carpenters, and construction managers to electricians, plumbers, and heating, air conditioning, and refrigeration technicians.

Statewide Program of Study: HVAC and Sheet Metal

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

Secondary Courses for High School Credit



- | | |
|----------------|---|
| Level 1 | <ul style="list-style-type: none"> Principles of Architecture Principles of Construction |
| Level 2 | <ul style="list-style-type: none"> Heating, Ventilation, and Air Conditioning (HVAC) and Refrigeration Technology I Building Maintenance Technology I Entrepreneurship I |
| Level 3 | <ul style="list-style-type: none"> Sheet Metal Technology Heating, Ventilation, and Air Conditioning (HVAC) and Refrigeration Technology II |
| Level 4 | <ul style="list-style-type: none"> Practicum in Construction Technology Practicum in Construction Technology + Extended Practicum in Construction Technology Practicum in Entrepreneurship Practicum in Entrepreneurship + Extended Practicum in Entrepreneurship Career Preparation for Programs of Study Career Preparation for Programs of Study + Extended Career Preparation |

Aligned Advanced Academic Courses

Dual Credit	Dual credit offerings will vary by local education agency.
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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 | <ul style="list-style-type: none"> Participate in a pre-apprenticeship in HVAC and refrigeration Intern with an HVAC company to practice installing and repairing heating and cooling systems |
| Expanded Learning Opportunities | <ul style="list-style-type: none"> Job shadow an HVAC technician or cost estimator Participate in SkillsUSA |

Aligned Industry-Based Certifications

- | | |
|--|--|
| <ul style="list-style-type: none"> Employment Ready Certification - Air Conditioning Employment Ready Certification - Electrical Employment Ready Certification - Gas Heat Employment Ready Certification - Heat Pumps Employment Ready Certification - Light Commercial Air Conditioning HBI Pre-Apprenticeship Certificate Training (PACT), Core | <ul style="list-style-type: none"> HBI Pre-Apprenticeship Certificate Training (PACT), Heating, Ventilation and Air Conditioning Heating, Electrical, and Air Conditioning Technology (H.E.A.T.) NCCER Construction Technology Certification Level I NCCER Core NCCER Heating, Ventilation, Air Conditioning Level I NCCER Sheet Metal Level I Refrigerant Handling (EPA 608) |
|--|--|



Example Postsecondary Opportunities

Apprenticeships

- Heating and Air Conditioning Installer



Associate Degrees

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

Bachelor's Degrees

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

Master's, Doctoral, and Professional Degrees

- Construction Engineering
- Construction Management



Example Aligned Occupations

Helpers—Installation, Maintenance, and Repair Workers

Median Wage: \$33,348
Annual Openings: 2,366
10-Year Growth: 22%

Heating, Air Conditioning, and Refrigeration Mechanics and Installers

Median Wage: \$48,722
Annual Openings: 3,719
10-Year Growth: 21%

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-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources>

Suggested Heating, Air Conditioning, and Refrigeration Crosswalk

9th Grade						10th Grade					
ISD	PEIMS #	CR	LSCPA	SCH	Online	ISD	PEIMS #	CR	LSCPA	SCH	Online
						Heating, Ventilation, and Air Conditioning (HVAC) and Refrigeration Technology I	13005800	1	HART 1310 (F)	3	
									HART 1300 (S)	3	
TOTAL CREDITS				0		TOTAL Credits				6	
11th Grade						12th Grade					
ISD	PEIMS #	CR	LSCPA	SCH	Online	ISD Course	PEIMS #	CR	LSCPA	SCH	Online
Heating, Ventilation, and Air Conditioning (HVAC) and Refrigeration Technology II	13005900	2	HART 1301 (F)	3		Practicum in Construction Technology	13005255	3	HART 1307 (F)	3	
			HART 1303 (S)	3							
TOTAL CREDITS				2	6				TOTAL CREDITS		
ISD Total Credits				6		LSCPA TOTAL Semester Credit Hours				18	

Program Information
The courses in this program can be applied to the Heating, Air Conditioning, and Refrigeration Certificate and the AAS in Heating, Air Conditioning, and Refrigeration. All courses are WECM courses. In most cases, ISD HVAC instructors can be credentialed and mentored to teach these courses.

LSCPA Course	LSCPA Course Name
HART 1300	HVAC Duct Fabrication
HART 1301	Basic Electricity for HVAC
HART 1303	Air Conditioning Control Principles
HART 1307	Refrigeration Principles
HART 1310	HVAC Shop Practices and Tools
HART 1356**	EPA Recovery Certification Preparation**

(F) Fall
(S) Spring

Endorsement: Business and Industry
Program of Study: HVAC and Sheet Metal
Cluster: Architecture and Construction

** Requirement for degree and not for level 1 cert



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 | <ul style="list-style-type: none"> Principles of Hospitality and Tourism Introduction to Culinary Arts |
| Level 2 | <ul style="list-style-type: none"> Culinary Arts Entrepreneurship I Food Technology and Safety Foundations of Restaurant Management |
| Level 3 | <ul style="list-style-type: none"> Advanced Culinary Arts Introduction to Event and Meeting Planning Tourism Marketing Concepts and Applications Food Processing Food Processing + Agricultural Laboratory and Field Experience |
| Level 4 | <ul style="list-style-type: none"> Food Science Practicum in Culinary Arts Practicum in Culinary Arts + Extended Practicum in Culinary Arts Practicum in Event and Meeting Planning Practicum in Hospitality Services Practicum in Hospitality Services + Extended Practicum in Hospitality Services Practicum in Entrepreneurship Practicum in Entrepreneurship + Extended Practicum in Entrepreneurship Career Preparation for Programs of Study Career Preparation for Programs of Study + Extended Career Preparation |

Aligned Advanced Academic Courses

AP or IB	AP Chemistry IB Chemistry SL
Dual Credit	Dual credit offerings will vary by local educational agency.

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	<ul style="list-style-type: none"> 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 Opportunities	<ul style="list-style-type: none"> Participate in FCCLA Participate in SkillsUSA Participate in American Culinary Association or the Texas Restaurant Association

Aligned Industry-Based Certifications

- | | |
|--|--|
| <ul style="list-style-type: none"> Certified Fundamentals Cook Certified Fundamentals Pastry Cook Hospitality and Tourism Specialist Commercial Foods Culinary Meat Selection and Cookery Certification | <ul style="list-style-type: none"> Food Protection Manager Certification Food Safety and Science Certification ManageFirst Professional Pre-Professional Certification in Culinary Arts Pre-Professional Certification in Food Science Fundamentals ServSafe Manager |
|--|--|



Example Postsecondary Opportunities

Associate Degrees

- Culinary Arts
- Baking and Pastry Arts

Bachelor's Degrees

- Hotel/Motel Administration/Management
- Culinary Science

Master's, Doctoral, and Professional Degrees

- Organizational Leadership
- Foodservice Systems Administration/Management

Additional Stackable IBCs/License

- Food Manager License



Example Aligned Occupations

Bakers

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

Chefs and Head Cooks

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

General and Operations Managers

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

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



For more information visit:

<https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources>

Suggested Culinary Pathway

9th Grade						10th Grade					
ISD	PEIMS #	CR	LSCPA	SCH	Online	ISD	PEIMS #	CR	LSCPA	SCH	Online
						Culinary Arts I	13022600	1	CHEF 1301 – Basic Food Preparation (F)	3	
									CHEF 1305 – Sanitation and Safety (S)	3	
TOTAL CREDITS				0		TOTAL Credits		1	TOTAL CREDITS		6
11th Grade						12th Grade					
ISD	PEIMS #	CR	LSCPA	SCH	Online	ISD Course	PEIMS #	CR	LSCPA	SCH	Online
Advanced Culinary Arts	13022650	1	HAMG 1321 - Intro to Hospitality (F)	3		Practicum in Culinary Arts	13022700	2	PSTR 1301 - Fundamentals of Baking (F)	3	
			RSTO 1313 - Hospitality Supervision (S)	3					CHEF 2331 - Adv Food Prep	3	
TOTAL CREDITS				1		TOTAL CREDITS		2	TOTAL CREDITS		6
ISD Total Credits		4						LSCPA TOTAL Semester Credit Hours		18	

Program Information
The courses in this program can be applied to the Culinary Arts Foundation Certificate, the Culinary Arts Specialist Certificate, and the AAS in Culinary Arts and Hospitality. All courses are WECM courses. In most cases, ISD Culinary instructors can be credentialed and mentored to teach these courses.

Endorsement: Business and Industry
Program of Study: Culinary Arts
Cluster: Hospitality and Tourism

LSCPA Course	LSCPA Course Name
CHEF 1301	Basic Food Preparation
CHEF 1305	Sanitation and Safety
PSTR 1301	Fundamentals of Baking
RSTO 1313	Hospitality Supervision
HAMG 1321	Introduction to Hospitality Industry
CHEF 2331 **	Advanced Food Preparation

** Indicates part of level 2 Certificate



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.

Regional Program of Study: Cosmetology and Personal Care Services

Approved in ESC Regions 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 17, 18, 19, & 20

**The list of approved ESC regions is updated every school year. Be sure to check the CTE regional program of study website for updates.*

The Cosmetology and Personal Care Services regional program of study focuses on occupational and educational opportunities associated with providing beauty and personal care services. This program of study includes managing personal care facilities and coordinating or supervising personal service workers.

Secondary Courses for High School Credit

Level 1	<ul style="list-style-type: none"> Principles of Cosmetology Design and Color Theory Microbiology and Safety for Cosmetology Careers
Level 2	<ul style="list-style-type: none"> Introduction to Cosmetology Nail Care, Enhancements, and Spa Services Esthetics Entrepreneurship I
Level 3	<ul style="list-style-type: none"> Cosmetology I Cosmetology I + Cosmetology I Lab Barbering I
Level 4	<ul style="list-style-type: none"> Cosmetology II Cosmetology II + Cosmetology II Lab Barbering II Practicum in Entrepreneurship Practicum in Entrepreneurship + Extended Practicum in Entrepreneurship Career Preparation for Programs of Study Career Preparation for Programs of Study + Extended Career Preparation

Aligned Advanced Academic Courses

Dual Credit Dual credit offerings will vary by local educational agency.

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	<ul style="list-style-type: none"> Work part-time in a salon, spa, or barbershop Participate in an apprenticeship at a salon to become an apprentice stylist
Expanded Learning Opportunities	<ul style="list-style-type: none"> Tour a salon, spa, or barbershop Participate in SkillsUSA

Aligned Industry-Based Certifications

- Barber Operator License
- Cosmetology Esthetician License
- Cosmetology Manicurist License
- Cosmetology Operator License



Example Postsecondary Opportunities

Apprenticeships

- Apprentice Stylist

Associate Degrees

- Cosmetology Operator
- Esthetics and Skin Care

Additional Stackable IBCs/License

- Class A Barber
- Eyelash Extension Specialist
- Hair Weaving Specialist



Example Aligned Occupations

Hairdressers, Hairstylists, and Cosmetologists

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

Skincare Specialists

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

First-Line Supervisors of Personal Service Workers

Median Wage: \$36,795
Annual Openings: 2,253
10-Year Growth: 29%

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



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

Suggested Cosmetology Crosswalk

9th Grade						10th Grade					
ISD	PEIMS #	CR	LSCPA	SCH	Online	ISD	PEIMS #	CR	LSCPA	SCH	Online
						Intro to Cosmetology	13025100	1	CSME 1410 (F)	3	
									CSME 1401 (F)	4	
									CSME 2343 (S)	3	
TOTAL CREDITS				0		TOTAL Credits		1		10	
11th Grade						12th Grade					
ISD	PEIMS #	CR	LSCPA	SCH	Online	ISD Course	PEIMS #	CR	LSCPA	SCH	Online
Cosmetology I Lab	1302510	3	CSME 1447 (F)	4		Cosmetology II Lab	13025310	3			
			CSME 2401 (F)	4					CSME 2410 (F)	4	
			CSME 1453 (S)	4					CSME 2251 (S)	2	
TOTAL CREDITS		3		12			3			6	
ISD Total Credits		7							LSCPA TOTAL Semester Credit Hours	28	

Program Information
Hairstylists and cosmetologists work primarily in a salon providing haircutting, hairstyling, and a range of other beauty services. Cosmetology Operators in the state of Texas are licensed by the Texas Department of Licensing and Regulation (TDLR). The Cosmetology Operator Certificate is designed for dual enrollment, providing high school students the preparatory and experience in the cosmetology career field.

LSCPA Course	LSCPA Course Name
CSME 1401	Orientation to Cosmetology
CSME 2343	Salon Development
CSME 1310	Introduction to Haircutting and Related Theory
CSME 1453	Chemical Reformation and Related Theory
CSME 1447	Principles of Skin Care/Facials and Related Theory
CSME 2251	Preparation for the State Licensing Exam
CSME 2410	Advanced Haircutting and Related Theory
CSME 2401	Principles of Hair Coloring and Related Theory

Endorsement: Business and Industry
Program of Study: Cosmetology and Personal Care Services
Cluster: Human Services



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 drawing blueprints for interior and exterior construction projects.

Secondary Courses for High School Credit

- | | |
|----------------|--|
| Level 1 | <ul style="list-style-type: none"> Principles of Architecture Principles of Construction |
| Level 2 | <ul style="list-style-type: none"> Architectural Design I Interior Design I Computer Aided Drafting for Architecture |
| Level 3 | <ul style="list-style-type: none"> Architectural Design II Interior Design II Civil Engineering and Architecture (PLTW) |
| Level 4 | <ul style="list-style-type: none"> Career and Technical Education Project-Based Capstone Practicum in Architectural Design Practicum in Architectural Design + Extended Practicum in Architectural Design Practicum in Interior Design Practicum in Interior Design + Extended Practicum in Interior Design Practicum in Construction Technology Practicum in Construction Technology + Extended Practicum in Construction Technology Career Preparation for Programs of Study Career Preparation for Programs of Study + Extended Career Preparation for Programs of Study |

Aligned Advanced Academic Courses

Dual Credit	Dual credit offerings will vary by local education agency.
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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 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 Opportunities

- Conduct an informational interview with an architect to learn about their role and responsibilities
- Participate in SkillsUSA or TSA

Aligned Industry-Based Certifications

- | | |
|---|---|
| <ul style="list-style-type: none"> Autodesk Associate (Certified User) 3ds MAX Autodesk Associate (Certified User) AutoCAD Autodesk Associate (Certified User) Fusion 360 Autodesk Associate (Certified User) Revit Architecture Autodesk Associate (Certified User) Revit for Electrical Autodesk Associate (Certified User) Revit for Structural Design Autodesk Certified Professional Fusion 360 Autodesk Certified Professional in AutoCAD for Design and Drafting Autodesk Certified Professional in Civil 3D for Infrastructure Design Autodesk Certified Professional in Revit for Architectural Design | <ul style="list-style-type: none"> Autodesk Certified Professional in Revit for Electrical Design Autodesk Certified Professional in Revit for Structural Design Certified SOLIDWORKS Associate (CSWA) - Academic Certified SOLIDWORKS Associate (CSWA) - Electrical Certified SOLIDWORKS Associate (CSWA) - Simulation Certified SOLIDWORKS Associate (CSWA) - Sustainability Certified SOLIDWORKS Professional (CSWP) - Academic Certified SOLIDWORKS Professional (CSWP) - Model Based Definition Certified SOLIDWORKS Professional (CSWP) - Simulation Certified SOLIDWORKS Professional (CSWPA) - Drawing Tools LEED Green Associate Residential Plans Examiner - R3 |
|---|---|



Example Postsecondary Opportunities

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-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources>

Architectural Drafting & Design

9th Grade						10th Grade						
ISD	PEIMS #	CR	LSCPA	SCH	Online	ISD	PEIMS #	CR	LSCPA	SCH	Online	
Principles of Architecture	13004210	1	DFTG 1305 Introduction to Technical Drawing (F)	3		Computer Aided Drafting	N1300429	1	DFTG 1309 Basic Computer Aided Drafting (F)	3		
			DFTG 1333 Mechanical Drafting (S)	3					DFTG 2319 Intermediate Computer Aided Drafting (S)	3		
TOTAL CREDITS				6		TOTAL Credits				6		
11th Grade						12th Grade						
ISD	PEIMS #	CR	LSCPA	SCH	Online	ISD Course	PEIMS #	CR	LSCPA	SCH	Online	
Architectural Design I	13004600	1	DFTG 1345 Parametric Modeling & Design (F)	3		Architectural Design II	13004700	2	ARCE 1352 Structural Drafting (F)	3		
			DFTG 1317 - Architectural Drafting - Residential (S)	3					DFTG 1330 Civil Drafting I (F)	3		
TOTAL CREDITS				6		Practicum in Architectural Design	13004800	2	DFTG 2323 Pipe Drafting (S)	3		
ISD Total Credits				7.0					TOTAL CREDITS			
						TOTAL CREDITS				4		
										LSCPA TOTAL Semester Credit Hours		30

Program Information
The courses in this program can be applied to the Drafting Technology Certificate and the AAS in Drafting Technology. All courses are WECM courses. In most cases, ISD Drafting Technology instructors can be credentialed and mentored to teach these courses.

LSCPA Course	LSCPA Course Name
DFTG 1305	Introduction to Technical Drawing
DFTG 1333	Mechanical Drafting
DFTG 1309	Basic Computer Aided Drafting
DFTG 2319	Intermediate Computer Aided Drafting
DFTG 1345	Parametric Modeling and Design
DFTG 1317	Architectural Drafting - Residential
ARCE 1352	Structural Drafting
DFTG 1330	Civil Drafting I
DFTG 2323	Pipe Drafting
TECM 1301/MATH 1314	Industrial Mathematics/College Algebra

(F) Fall
(S) Spring

Endorsement: Business and Industry
Program of Study: Architectural Design
Cluster: Architecture and Construction



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.



Secondary Courses for High School Credit

Level 1

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

Level 2

- Law Enforcement I
- Criminal Investigation
- Federal Law Enforcement and Protective Services

Level 3

- Law Enforcement II
- Correctional Services
- Forensic Psychology
- Counseling and Mental Health
- Crisis Care (TBD)

Level 4

- Forensic Science
- Practicum in Law, Public Safety, Corrections, and Security
- Practicum in Law, Public Safety, Corrections, and Security + Extended Practicum in Law, Public Safety, Corrections, and Security
- Career Preparation for Programs of Study
- Career Preparation for Programs of Study + Extended Career Preparation

Aligned Advanced Academic Courses

Dual Credit Dual credit offerings will vary by local education agency.

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 a detective to learn about investigations and the role of detectives in law enforcement
- Intern in dispatch at a local law enforcement agency to learn about first responder roles and processes

Expanded Learning Opportunities

- Visit a police department
- Participate in TSA or SkillsUSA

Aligned Industry-Based Certifications

- IAED Emergency Telecommunicator
- Non-Commissioned Security Officer Level II License



Example Postsecondary Opportunities

Apprenticeships

- Security Specialist

Associate Degrees

- Criminal Justice
- Law Enforcement

Bachelor's Degrees

- Forensic Science
- Criminal Justice

Master's, Doctoral, and Professional Degrees

- Criminal Justice
- Criminology and Criminal Justice

Additional Stackable IBCs/Licensures

- Jailer—Basic County Corrections
- Basic Telecommunicator



Example Aligned Occupations

Police and Sheriff's Patrol Officers

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

Detectives and Criminal Investigators

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-military-prep/career-and-technical-education/programs-of-study-additional-resources>

Suggested Criminal Justice Crosswalk

9th Grade						10th Grade					
ISD	PEIMS #	CR	LSCPA	SCH	Online	ISD	PEIMS #	CR	LSCPA	SCH	Online
						Law Enforcement I	13029300	1	CJSA 1022 - Introduction to Criminal Justice (S)	3	
TOTAL CREDITS						TOTAL CREDITS		1		3	
11th Grade						12th Grade					
ISD	PEIMS #	CR	LSCPA	SCH	Online	ISD Course	PEIMS #	CR	LSCPA	SCH	Online
Law Enforcement II	13029400	1	CJSA 1327 - Fundamentals of Criminal Law (F)	3		Practicum in Law, Public Safety, Corrections, and Security +extended	13030105	3	CJSA 1313 - Court Systems and Practices (F)	3	
			CJSA 1359 - Police System and Practices (S)	3		Correctional Services	13029700	1	CJCR 1007 - Correctional Systems and Practices (S)	3	
TOTAL CREDITS		1		6		TOTAL CREDITS		4		6	
ISD Total Credits		6							LSCPA TOTAL Semester Credit Hours	15	

Program Information
The courses in this program can be applied to the Criminal Justice Certificate. All courses are WECM courses. In most cases, ISD Criminal Justice instructors can be credentialed and mentored to teach these courses.

LSCPA Course	LSCPA Course Name
CJSA 1022	Introduction to Criminal Justice
CJSA 1313	Court Systems and Practices
CJCR 1007	Correctional Systems and Practices
CJSA 1359	Police System and Practices
CJSA 1327	Fundamentals of Criminal Law

Endorsement: Public Service
Program of Study: Law Enforcement
Cluster: Law and Public Service

(F) Fall
(S) Spring

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: Web Development

The Web Development program of study focuses on occupational and educational opportunities associated with designing, creating, and modifying websites. It includes integration of websites with other computer applications and conversion of written, graphic, audio, and video components to compatible web formats using software designed to facilitate the creation of web and multimedia content.



Secondary Courses for High School Credit

- Level 1**
 - Principles of Information Technology
 - Fundamentals of Computer Science
 - Digital Media
 - Web Communications

- Level 2**
 - Computer Science I
 - Foundations of User Experience (UX)
 - Entrepreneurship I

- Level 3**
 - Web Design
 - Web Game Development
 - Advanced User Experience Design

- Level 4**
 - Independent Study in Technology Applications
 - Independent Study in Evolving/Emerging Technologies
 - Career and Technical Education Project-Based Capstone
 - Practicum in Information Technology
 - Practicum in Information Technology + Extended Practicum in Information Technology
 - Practicum in Entrepreneurship
 - Practicum in Entrepreneurship + Extended Practicum in Entrepreneurship
 - Career Preparation for Programs of Study
 - Career Preparation for Programs of Study + Extended Career Preparation

Aligned Advanced Academic Courses

AP or IB	AP Computer Science A AP Computer Science Principles IB Computer Science SL IB Computer Science HL
Dual Credit	Dual credit offerings will vary by local education agency.

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.

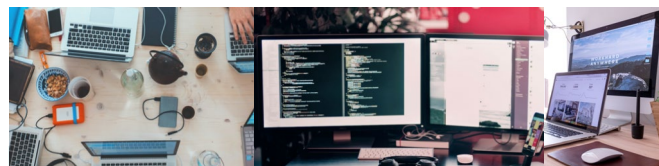
Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	<ul style="list-style-type: none"> • Intern at a nonprofit or small business to support developing or updating their website and digital media • Shadow a web designer to learn about how they developed their digital design skills and what factors they consider when developing a website
Expanded Learning Opportunities	<ul style="list-style-type: none"> • Create a website • Participate in SkillsUSA or TSA

Aligned Industry-Based Certifications

- Certified Web and Mobile App Developer Apprentice
- Certified Web Animator Associate
- CodeHS Python Level I Certification
- CodeHS Web Design Level I Certification
- Information Technology Specialist: HTML and CSS
- Information Technology Specialist: HTML5 Application Development
- Information Technology Specialist: JavaScript
- Microsoft Azure Data Fundamentals
- Oracle Certified Associate Java SE 8 Programmer
- Web Design - Job Ready

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



Example Postsecondary Opportunities

- Associate Degrees**
 - Web Page, Digital/Multimedia and Information Resources Design
 - Web/Multimedia Management
- Bachelor's Degrees**
 - Computer and Information Sciences
 - Information Technology
- Master's, Doctoral, and Professional Degrees**
 - Computer and Information Sciences
 - Computer Software Engineering
- Additional Stackable IBCs/License**
 - HTML Developer



Example Aligned Occupations

Web Developers

Median Wage: \$77,712
Annual Openings: 1,170
10-Year Growth: 24%

Software Developers

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

Computer and Information Systems Managers

Median Wage: \$155,593
Annual Openings: 3,064
10-Year Growth: 26%

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



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

Suggested Crosswalk Web Development

9th Grade						10th Grade					
ISD	PEIMS #	CR	LSCPA	SCH	Online	ISD	PEIMS #	CR	LSCPA	SCH	Online
						Foundations of User Experience (UX)	N1302809	1	ITSC 1401 - Introduction to Computers (F)	4	
									ITSY 1300 Fundamentals of Information Security (S)	3	
TOTAL Credits		0		0		TOTAL Credits		1		7	
11th Grade						12th Grade					
ISD	PEIMS #	CR	LSCPA	SCH	Online	ISD Course	PEIMS #	CR	LSCPA	SCH	Online
Computer Science I	3580200	1	ITSE 1359 - Introduction to Scripting Languages (F)	3		Web Game Development	3580830	1	GAME 1303 - Introduction to Game Design & Development (F)	3	
Web Design	3580820	1	IMED 1416 Web Design I (S)	4		Practicum in Information Technology + extended Practicum in Information Technology	13028005	3	ITSE 1346 - Database Theory and Design (S)	3	
			ITSE 1333 - Mobile Applications Development (S)	3					ITSE 2321 - Object-Oriented Programming (S)	3	
TOTAL CREDITS		2		10		TOTAL CREDITS		4		9	
ISD Total Credits		7							LSCPA TOTAL Semester Credit Hours	26	

Program Information
<p>The courses in this program can be applied to the Computer Programmer Certificate. These courses are WECM courses. In most cases, ISD instructors can be credentialed and mentored to teach these courses.</p>

LSCPA Course	LSCPA Course Name
GAME 1303	Introduction to Game Design & Development
ITSY 1300	Fundamentals of Information Security
IMED 1416	Web Design I
ITSC 1401	Introduction to Computers
ITSE 1333	Mobile Applications Development
ITSE 1359	Introduction to Scripting Languages
ITSE 1346	Database Theory and Design
ITSE 2321	Object-Oriented Programming

(F) Fall
(S) Spring

Endorsement: Information Technology
Program of Study: Web Development
Cluster: Information Technology

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 | <ul style="list-style-type: none"> Principles of Manufacturing Introduction to Welding |
| Level 2 | <ul style="list-style-type: none"> Introduction to Film Interpretation of Weldments Welding I Occupational Safety and Environmental Technology I Entrepreneurship I |
| Level 3 | <ul style="list-style-type: none"> Welding II Welding II + Welding II Lab |
| Level 4 | <ul style="list-style-type: none"> Practicum in Manufacturing Practicum in Manufacturing + Extended Practicum in Manufacturing Practicum in Entrepreneurship Practicum in Entrepreneurship + Extended Practicum in Entrepreneurship Career Preparation for Programs of Study Career Preparation for Programs of Study + Extended Career Preparation |

Aligned Advanced Academic Courses

Dual Credit Dual credit offerings will vary by local education agency.

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 | <ul style="list-style-type: none"> Job shadow a welder Intern for a local welding company |
| Expanded Learning Opportunities | <ul style="list-style-type: none"> Tour a welding shop Participate in SkillsUSA or TSA Participate in a welding project that benefits the community |

Aligned Industry-Based Certifications

- API 1104 Welding Pipelines and Related Facilities
- AWS Certified Welder
- AWS D1.1 Structural Steel
- AWS D9.1 Sheet Metal Welding
- AWS SENSE Level I: Entry Welder
- Industrial Technology Maintenance (ITM)
- Maintenance Welding
- NCCER Construction Technology Certification Level I
- NCCER Core
- NCCER Welding Level I
- Welding - Job Ready



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.



For more information visit:

<https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources>

Suggested Welding Crosswalk

9th Grade						10th Grade							
ISD	PEIMS #	CR	LSCPA	SCH	Online	ISD	PEIMS #	CR	LSCPA	SCH	Online		
						Introduction to Welding	13032250	1	WLDG 1323 - Welding Safety, Tools, and Equipment (Spring)				
TOTAL CREDITS				0		TOTAL Credits				1	3		
11th Grade						12th Grade							
ISD	PEIMS #	CR	LSCPA	SCH	Online	ISD Course	PEIMS #	CR	LSCPA	SCH	Online		
Welding I	13032300	2	WLDG 1428 - Introduction to Shielded Metal Arc Welding (SMAW) (Fall)	4		Welding II/Lab	13032410	3	WLDG 1434 - Introduction to Gas Tungsten Arc (GTAW) Welding (Fall)	4			
			WLDG 1457 - Intermediate Shielded Metal Arc Welding (SMAW) (Spring)	4					WLDG 2406 - Intermediate Pipe Welding (Spring)	4			
TOTAL CREDITS				2		TOTAL CREDITS				3	8		
ISD Total Credits		6.0							LSCPA TOTAL Semester Credit Hours		19		

Program Information
The courses in this program can be applied to the Welding Certificate. All courses are WECM courses. In most cases, ISD Welding instructors can be credentialed and mentored to teach these courses.

LSCPA Course	LSCPA Course Name
WLDG 1323	Welding Safety, Tools, and Equipment
WLDG 1428	Introduction to Shielded Metal Arc Welding (SMAW)
WLDG 1457	Intermediate Shielded Metal Arc Welding (SMAW)
WLDG 1434	Introduction to Gas Tungsten Arc (GTAW) Welding
WLDG 2406	Intermediate Pipe Welding

Endorsement: Business and Industry
Program of Study: Welding
Cluster: Manufacturing

GEDS Course Inventory with Prerequisites & TSIA 2 Requirements

Courses and Prerequisites

Course Code	Course Title	TSIA 2 Requirement	Additional Prerequisite Notes
ARTS 1301	Art Appreciation	ELAR 945+ / Essay 5	—
BIOL 2301/2101	Anatomy & Physiology I & Lab	ELAR 945+ / Essay 5	—
BIOL 2302/2102	Anatomy & Physiology II & Lab	ELAR 945+ / Essay 5	—
ECON 2301	Principles of Macroeconomics	ELAR 945+ / Essay 5 & Math 950	—
ECON 2302	Principles of Microeconomics	ELAR 945+ / Essay 5 & Math 950	—
EDUC 1100	Learning Framework	None	—
EDUC 1301	Introduction to Education	ELAR 945+ / Essay 5	—
EDUC 2301	Special Populations in Education	ELAR 945+ / Essay 5	—
ENGL 1301	Composition I	ELAR 945+ / Essay 5	—
ENGL 1302	Composition II	ELAR 945+ / Essay 5	Prerequisite: ENGL 1301
ENGL 2307	Creative Writing	ELAR 945+ / Essay 5	—
ENGL 2311	Technical & Business Writing	ELAR 945+ / Essay 5	—
ENGL 2321	British Literature	ELAR 945+ / Essay 5	Prerequisite: ENGL 1301
ENGL 2326	American Literature	ELAR 945+ / Essay 5	Prerequisite: ENGL 1301
GOVT 2305	Federal Government	ELAR 945+ / Essay 5	—
GOVT 2306	Texas Government	ELAR 945+ / Essay 5	—
HIST 1301	U.S. History I	ELAR 945+ / Essay 5	—
HIST 1302	U.S. History II	ELAR 945+ / Essay 5	—
HUMA 1315	Fine Arts Appreciation	ELAR 945+ / Essay 5	—
MATH 1314	College Algebra	Math 950	—
PHIL 1301	Introduction to Philosophy	ELAR 945+ / Essay 5	—

PSYC 2301	General Psychology	ELAR 945+ / Essay 5	—
PSYC 2314	Lifespan Growth & Development	ELAR 945+ / Essay 5	—
SOCI 1301	Introduction to Sociology	ELAR 945+ / Essay 5	—
SPCH 1315	Public Speaking	ELAR 945+ / Essay 5	—
SPCH 1318	Interpersonal Communications	ELAR 945+ / Essay 5	—

Completion of certain dual credit courses with a grade of “C” or better can also establish TSI exemption in that subject (e.g., ENGL 1301).

Teacher Credentialing Requirements for Dual Credit Instructors at LSCPA

To be approved as a dual credit instructor with Lamar State College Port Arthur (LSCPA), high school teachers must meet Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) faculty credentialing standards, as well as LSCPA and Texas Higher Education Coordinating Board requirements.

Minimum Requirements

- Academic Courses (Core/Transferable)
 - Master's degree in the teaching discipline OR
 - Master's degree in any field with 18 graduate hours in the teaching discipline.
- Career and Technical Education (CTE) Courses
 - Bachelor's degree in the teaching discipline, OR
 - Associate degree in the teaching discipline with demonstrated work experience, licensure, or industry certification.

Examples of Acceptable Master's Degrees for Core Courses

Teaching Discipline	Examples of Acceptable Master's Degrees
English	Master's in English; Master's in any field with 18 graduate hours in English
Mathematics	Master's in Math; Master's in any field with 18 graduate hours in Math
History	Master's in History; Master's in any field with 18 graduate hours in History
Government/Political Science	Master's in Political Science; Master's in any field with 18 graduate hours in Political Science
Economics	Master's in Economics; Master's in any field with 18 graduate hours in Economics
Biology	Master's in Biology; Master's in any field with 18 graduate hours in Biology
Chemistry	Master's in Chemistry; Master's in any field

	with 18 graduate hours in Chemistry
Physics	Master's in Physics; Master's in any field with 18 graduate hours in Physics
Speech/Communications	Master's in Communications, Speech, or related field; or 18 graduate hours in Communications/Speech
Fine Arts (Art, Music, Theater)	Master's in Fine Arts discipline; or 18 graduate hours in the specific Fine Arts area

Application Process

1. Submit a current resume or curriculum vitae highlighting teaching and professional experience.
2. Provide official transcripts for all graduate and undergraduate degrees.
3. Submit copies of industry certifications or licenses (if applicable).
4. Complete the appropriate LSCPA Faculty Credentialing Application Form:
 - Academic/Core Courses: <https://lamarpa.peopleadmin.com/postings/4604>
 - Technical/CTE Courses: <https://lamarpa.peopleadmin.com/postings/4601>

Review & Approval

- The LSCPA Dual Credit Office will evaluate applications in consultation with academic department chairs.
- Teachers who meet requirements will be approved to teach LSCPA courses at their high school.
- If additional graduate coursework is needed, LSCPA can provide guidance on pathways to meet qualifications.

Questions?

For assistance with the credentialing process, please contact:

Dual Credit Office – LSCPA

DualCredit@lamarpa.edu

(409) 984-6103