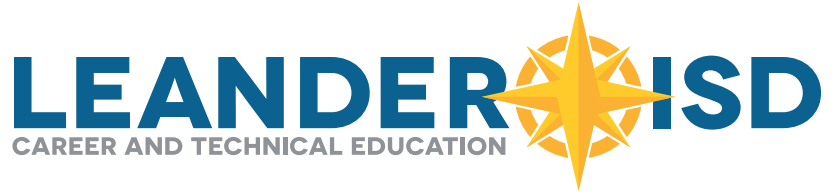


LEADING TO A BRIGHT FUTURE

2025-26 HIGH SCHOOL

**CAREER & TECHNICAL EDUCATION
PROGRAM OF STUDY GUIDEBOOK**

WELCOME



The high school experience presents an exciting opportunity to explore passions and interests, guiding students toward pathways that shape their futures and post-secondary aspirations. In Leander ISD, we believe every student deserves an education that's relevant, engaging, and connected to the real world. CTE does exactly that. It combines strong academics with hands-on experience to help students develop critical and creative thinking, effective communication, collaboration, and adaptability—key attributes of our district's Graduate Profile.

WHAT IS THIS GUIDEBOOK FOR?

Leander ISD's Career and Technical Education (CTE) Programs of Study Guide is designed to assist students, parents/guardians, teachers, and school personnel in making informed decisions while planning individual student's educational goals. CTE programs of study align with three of the five high school endorsements for graduation: Business and Industry, Public Service, and STEM. The intention of a program of study is to provide a sequence of courses that prepare students for success in high-wage, high-skill, and high-demand rewarding careers. Students in CTE programs also have the opportunity to participate in Career and Technical Student Organizations, earn industry-recognized certifications, and gain valuable real-world work-based learning experiences that will set them apart from their peers upon graduating high school.

We urge students and parents/guardians to thoroughly review the guide and collaborate with school counselors to create a personalized graduation plan. Explore, ask questions, and embrace the possibilities ahead!

CTE CONTINUOUS PUBLIC NOTIFICATION OF NONDISCRIMINATION

Leander ISD does not discriminate on the basis of race, color, national origin, sex, or disability in its programs or activities and provides equal access to the Boy Scouts and other designated youth groups. The following person has been designated to handle inquiries regarding the nondiscrimination policies: Bryan Miller, Title IX Coordinator; 204 W. South Street Leander, TX 78646; Bryan.Miller@Leanderisd.org; (512) 570-0000.

Leander ISD no discrimina por motivos de raza, color, origen nacional, sexo o discapacidad en sus programas o actividades y proporciona igualdad de acceso a los Boy Scouts y otros grupos juveniles designados. La siguiente persona ha sido designada para atender las consultas relacionadas con las políticas de no discriminación: Bryan Miller, Coordinador del Título IX; 204 W. South Street Leander, TX 78646; Bryan.Miller@Leanderisd.org; (512) 570-0000.

Leander ISD తన కరోయిడరమూ లెండర్ కరోయిడరమూలో జాతి, వర్ణం, జాతీయ జన్మ మూలం, లింగం లెండర్ కరోయిడరమూలో అధికారంగా వివేకపను చూపించదు మరియు బాలుర నౌకాట్లు మరియు ఇతర హాదాకల నాయకత్వ యువజన సమూహాలకు సమాన వారాకయతను అందోన్ తుంది. వివేకపరహిత హాసోలకు సంబంధించిన విచారణలను చిఫ్ ట్టడం కోసం ఈ కో రోదో వయకతో నాయకత్వలయోయరు: Bryan Miller, టైటిల్ IX కోఆర్డినేటర్; 204 W. South Street Leander, TX 78646; Bryan.Miller@Leanderisd.org; (512) 570-0000.

CTE TERMS TO KNOW

ENDORSEMENT

An **endorsement** is a series of courses that students choose based on their interests or skills. Endorsements help students gain in-depth knowledge of a subject or career. Students can earn multiple endorsements as part of their high school diploma. The five endorsement areas include: Science, Technology, Engineering, and Mathematics (STEM), Business and Industry, Public Service, Arts and Humanities, and Multidisciplinary Studies.

CAREER CLUSTER

Career Clusters are a grouping of occupations and industries that help students learn the skills and knowledge needed for a specific career. Leander ISD offers 12 of the 14 state of Texas Career Clusters.

PROGRAM OF STUDY

A **Program of Study** is a sequence of courses that prepare students with the knowledge and skills necessary for success in their chosen career. These courses integrate relevant, real-world experiences, culminating in the attainment of a recognized postsecondary credential or a valuable work-based learning opportunity, such as an internship.

A student is designated as a CTE Program of Study Completer by successfully completing three or more CTE high school credit courses, totaling at least four credits within the same CTE Program of Study. This sequence must include at least one Level 3 or Level 4 course to ensure a comprehensive educational experience.

INDUSTRY-BASED CERTIFICATION (IBC)

An **Industry-Based Certification** is a professional credential that verifies a student's expertise in a specific technical or career area. These certifications are highly valued by employers and can give students a competitive edge in workforce, military, or postsecondary education.

WORK-BASED LEARNING

Work-Based Learning encompasses a variety of experiences that connect classroom learning with real-world work environments. This can include guest speakers, field trips, job shadowing internships and more, providing students with valuable insights into their chosen careers and helping them develop essential professional skills.

CAREER & TECHNICAL STUDENT ORGANIZATION (CTSO)

A **Career and Technical Student Organization (CTSO)** is a student-led organization aimed at promoting leadership, personal development, and career readiness in specific Career and Technical Education (CTE) fields. These organizations provide students with opportunities to enhance their skills through leadership training, competitions, networking, community service, and hands-on experiences relevant to their chosen careers. Leander ISD offers student opportunities in DECA, FCCLA, FFA, HOSA, SkillsUSA, TAFE, and National Technical Honor Society.

INDUSTRY & COMMUNITY PARTNER EXPERIENCES

PARTNER WITH LEANDER CTE PROGRAMS

Leander ISD thrives on collaborating with dynamic community members and vibrant business partners. Dive into our Program of Study offerings, where you can energize students as a guest speaker, mentor, or even ignite their potential by taking on a student intern. Share your industry insights and bring learning to life by becoming an LISD CTE Partner.

WAYS TO PARTNER

- Be a guest speaker (in-person or virtual)
- Host a worksite tour
- Serve as an industry mentor
- Offer opportunities for job shadowing
- Provide resume and interview coaching
- Host a skills workshop
- Organize/mentor an industry project
- Hire/use school-based enterprises
- Host an externship
- Hire a student intern/employee (see Hire our Students below)
- Offer clinical experiences
- Coordinate a service learning opportunity
- Serve on an advisory committee
- Donate to our programs
- Offer student scholarships

HIRE OUR STUDENTS

- Animal Science: Veterinary Medicine
- Applied Agricultural Engineering (Welding)
- Plant Science (Floral Design)
- Architectural Design: Interior Design
- Construction
- Electrical
- Design & Multimedia Arts: Animation
- Design & Multimedia Arts: Fashion Design
- Design & Multimedia Arts: Graphic Design
- Digital Communications: Audio/Video Production
- Marketing & Sales
- Culinary Arts
- Cosmetology & Personal Care Services
- Programming & Software Development: App Development
- Automotive

CONTACT US

Ready to make a transformative impact? Partner with Leander ISD's CTE department and play a pivotal role in shaping the future of our students! Contact our Work-Based Learning Coordinator, Sarah Spradling, at **Sarah.Spradling@leanderisd.org**.

HIGH SCHOOL PROGRAMS OF STUDY

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AGRICULTURE, FOOD, & NATURAL RESOURCES

Animal Science: Animal Science Studies

Animal Science: Veterinary

Agricultural Technology and Mechanical Systems

Plant Science: Floral Design

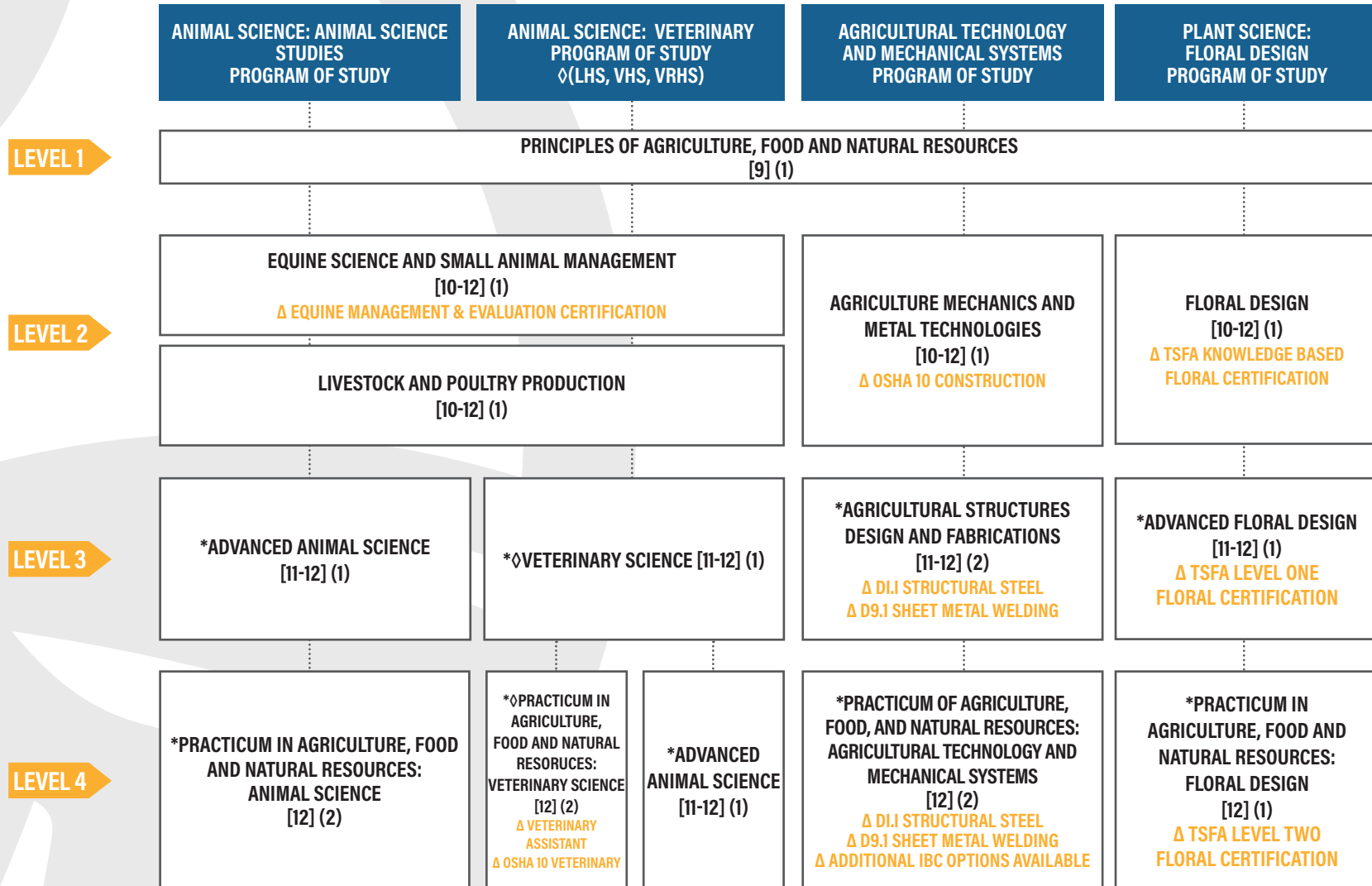
The Agriculture, Food, and Natural Resources (AFNR) Career Cluster® focuses on the essential elements of life—food, water, land, and air. This Career Cluster® includes a diverse spectrum of occupations, ranging from farmer, rancher, and veterinarian to geologist, land conservationist, and florist. It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



AGRICULTURE, FOOD, AND NATURAL RESOURCES

Recommended Course Sequences

*COURSE HAS A REQUIRED PREREQUISITE
 ▲ INDUSTRY-BASED CERTIFICATION (IBC)
 [] GRADE LEVEL(S)
 () CREDITS
 ◇ SPECIALIZED PROGRAM



BUSINESS AND INDUSTRY

Note: Students who complete Agricultural Technology and Mechanical Systems, Animal Science, or Plant Science Program of Study requirements are eligible to earn a STEM endorsement by also completing Algebra II, Chemistry, and Physics. Refer to course catalog for additional course sequence options, course descriptions, General Agricultural Program of Study option, and endorsement requirements. Dual credit courses may be substituted for requirements in appropriate areas; check with your counselor on available options. Specialized programs located on specific high school campuses are open to all LISD students; check with your campus College and Career Transition Coordinator for details.

ANIMAL SCIENCE STUDIES

PROGRAM OF STUDY

The Animal Science Program of Study focuses on the science, research, and business of animals used for labor and services as well as those that are raised for their meat, milk and fiber. Students will be able to apply biology and life science to the management and production of animals in the field, laboratories, and agricultural businesses.

INDUSTRY-BASED CERTIFICATION OPPORTUNITIES

Equine Management & Evaluation Certification

WORK-BASED LEARNING EXPERIENCES

Industry Guest Speakers; Field Trips;
Agri-Science Fair; Volunteering; Internships; SAE

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

FFA; National Technical Honor Society (NTHS)

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	10-YEAR GROWTH
Veterinary Assistants and Laboratory Animal Caretakers	\$29,906	1,348	24%
Veterinary Technologists and	\$33,679	1,217	24%
Veterinarian	\$103,160	347	26%

GET A GLIMPSE:
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THIS PROGRAM OF STUDY



RECOMMENDED COURSE SEQUENCE

(FOUR CREDITS-ONE COURSE IN BOLD REQUIRED)

**1
LEVEL**

Principles of Agriculture, Food and Natural Resources

**2
LEVEL**

Equine Science and Small Animal Management, Livestock and Poultry Production

**3
LEVEL**

Advanced Animal Science

**4
LEVEL**

Practicum of Agriculture, Food, and Natural Resources: Animal Science

NOTE: See reverse for endorsement requirements. Course descriptions and details can be found in the course catalog.



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

Continuous Public Notification of Non-Discrimination

Leander ISD does not discriminate on the basis of race, color, national origin, sex, or disability in its programs or activities and provides equal access to the Boy Scouts and other designated youth groups. The following person has been designated to handle inquiries regarding the nondiscrimination policies: Bryan Miller, Title IX Coordinator; 204 W. South Street Leander, TX 78646; Bryan.Miller@Leanderisd.org; (512) 570-0000. [Español \(Spanish\)](#) | [తెలుగు \(Telugu\)](#)

ENDORSEMENT REQUIREMENTS

A student may earn a Business and Industry endorsement by completing the required credits from the CTE Program of Study list below.

**Course has a required prerequisite*

4 CREDITS REQUIRED

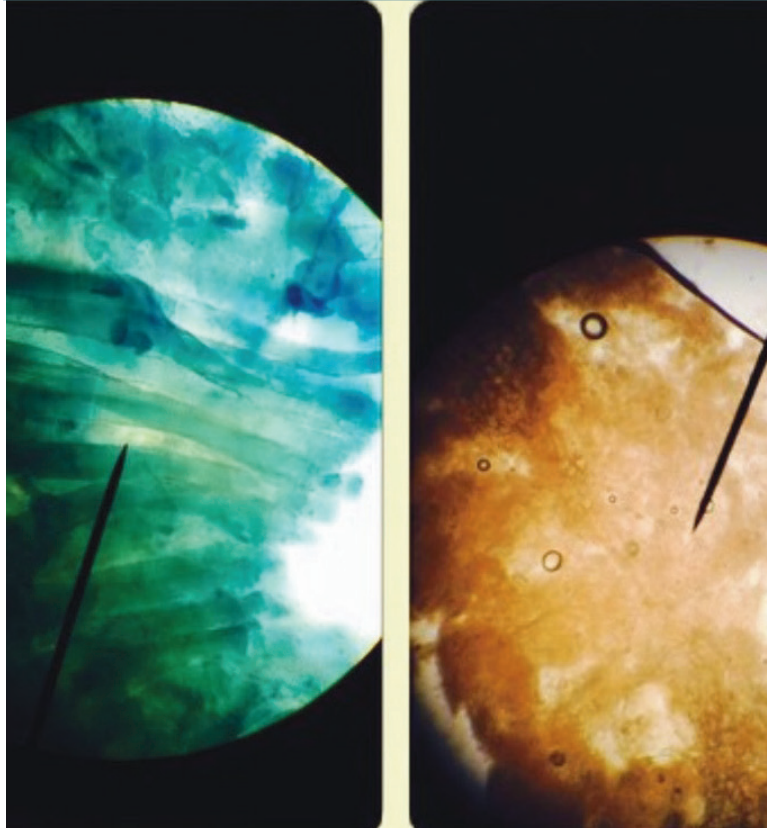
Required Courses: Choose at least one course from the following:

- Livestock and Poultry Production (1)
- *Advanced Animal Science (1)

Choose additional credits from the following:

- Principles of Agriculture, Food and Natural Resources (1)
- Equine Science & Small Animal Management (1)
- *Practicum in Agriculture, Food and Natural Resources: Animal Science (2)
- *Veterinary Science (1)
- Entrepreneurship I (1)
- *Career Preparation for Programs of Study (3)
- *CTE Project-Based Capstone (1)

NOTE: Students who complete the Animal Science Program of Study requirements are eligible to earn a STEM endorsement by also completing Algebra II, Chemistry and Physics.



INDUSTRY-BASED CERTIFICATIONS DETAILS

The National Horse Judging Team Coaches' Association is proud to offer the Equine Management & Evaluation Certification, which is designed to build a pipeline of skilled equine industry professionals. The certification can be earned by learners in all stages of their education and career and verifies individuals are prepared to pursue a career in the fields of equine evaluation, production and management. The certification validates the knowledge and skills needed to begin equine-related careers in evaluation, breeding, handling, stable management and more. Those who earn the certification are more qualified and prepared to enter a variety of roles within the industry. Additionally, the certification allows employers to connect with more skilled candidates in a highly-specialized industry.

NOTES:

DISCOVER MORE:
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PROGRAMS OF STUDY



ANIMAL SCIENCE: VETERINARY

PROGRAM OF STUDY

The Animal Science: Veterinary Program of Study focuses on the science, research, and business of animals and other living organisms. It teaches students how to apply biology and life science to real-world life processes of animals and wildlife, either in laboratories or in the field, which could include a veterinary office, a farm or ranch, or any outdoor area harboring animal life. Students may also research and analyze the growth and destruction of species and research or diagnose diseases and injuries of animals.

INDUSTRY-BASED CERTIFICATION OPPORTUNITIES

Certified Veterinary Assistant (CVA)–Level 1
Equine Management and Evaluation Certification,
OSHA 10 Veterinary

WORK-BASED LEARNING EXPERIENCES

Industry Guest Speakers; Field Trips;
Agri-Science Fair; In-House Small Animal Clinical Services;
Internships; Veterinary Clinical Internships for CVA; SAE

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

FFA; National Technical Honor Society (NTHS)

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	10-YEAR GROWTH
Veterinary Assistants and Laboratory Animal Caretakers	\$29,906	1,348	24%
Veterinary Technologists and	\$33,679	1,217	24%
Veterinarian	\$103,160	347	26%



RECOMMENDED COURSE SEQUENCE

**1
LEVEL**

Principles of Agriculture, Food and Natural Resources

**2
LEVEL**

Equine Science and Small Animal Management, Livestock and Poultry Production

**3
LEVEL**

Veterinary Science (LHS, VRHS, VHS)

**4
LEVEL**

Advanced Animal Science, Practicum in Agriculture, Food, and Natural Resources: Veterinary Science (LHS, VHS, VRHS)

NOTE: See reverse for endorsement requirements. Course descriptions and details can be found in the course catalog.

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

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ANIMAL SCIENCE: VETERINARY

BUSINESS AND INDUSTRY

ENDORSEMENT REQUIREMENTS

A student may earn a Business and Industry endorsement by completing the required credits from the CTE Program of Study list below.

**Course has a required prerequisite*

4 CREDITS REQUIRED

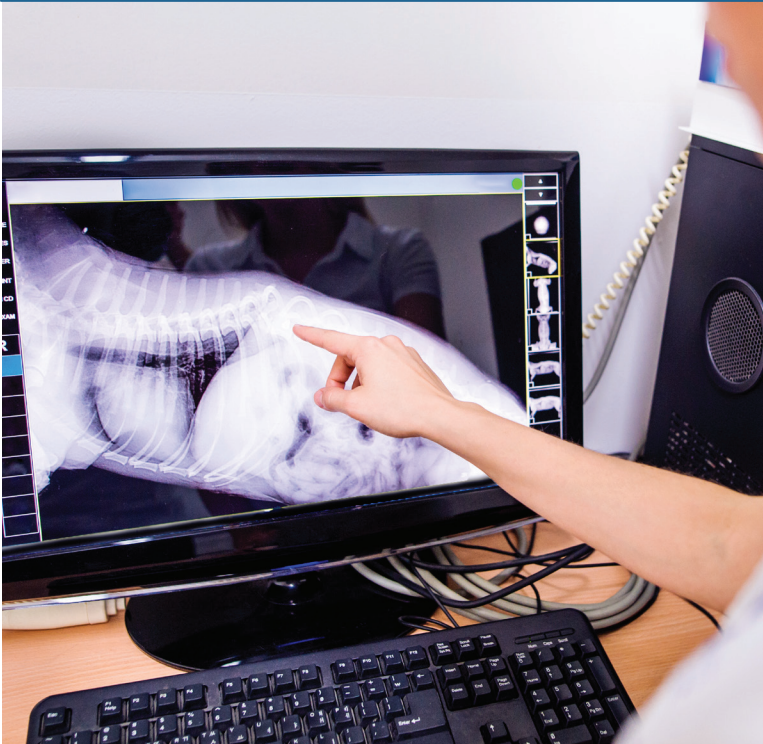
Required Course:

- *Veterinary Science (1)

Choose additional credits from the following:

- Principles of Agriculture, Food and Natural Resources (1)
- Equine Science & Small Animal Management (1)
- Livestock and Poultry Production (1)
- *Practicum in Agriculture, Food and Natural Resources: Veterinary Science (LHS, VHS, VRHS) (2)
- *Advanced Animal Science (1)
- *Career Preparation for Programs of Study (3)
- *CTE Project-Based Capstone (1)

NOTE: Students who complete the Animal Science Program of Study requirements are eligible to earn a STEM endorsement by also completing Algebra II, Chemistry and Physics.



INDUSTRY-BASED CERTIFICATIONS OPPORTUNITIES

Practicum in Agriculture, Food, and National Resources: Veterinary Medical Applications (LHS, VHS, VRHS) is designed to facilitate the skills and internship hours that are required to obtain a Certified Veterinary Assistant (CVA) Level I through Texas Veterinary Medical Association. The certification preparation will educate veterinary assistants in the essential skills and knowledge needed to become effective contributors to a veterinary medical care team. Students are required to complete 300 hours and demonstrate knowledge and mastery of required skills under the supervision of a veterinarian or Licensed Veterinary Technician, in addition to the 200 hours under the supervision of the classroom instructor. Practicum students will be responsible for seeking an internship location with guidance from the instructor for their CVA hours and skills application. Students that have the necessary hours and skills will be eligible to take the exam for Certified Veterinary Assistant (CVA) Level I.

The National Horse Judging Team Coaches' Association is proud to offer the Equine Management & Evaluation Certification, which is designed to build a pipeline of skilled equine industry professionals. The certification can be earned by learners in all stages of their education and career and verifies individuals are prepared to pursue a career in the fields of equine evaluation, production and management. The certification validates the knowledge and skills needed to begin equine-related careers in evaluation, breeding, handling, stable management and more. Those who earn the certification are more qualified and prepared to enter a variety of roles within the industry. Additionally, the certification allows employers to connect with more skilled candidates in a highly-specialized industry.

Our OSHA 10 Hour General Industry (Veterinary) course provides training for entry-level workers on the recognition, avoidance, abatement, and prevention of safety and health hazards in workplaces, as well as information regarding workers' rights and employer responsibilities. Through this training, OSHA helps to ensure that workers have the knowledge they need to stay safe on the job. Students who successfully complete the CareerSafe OSHA 10 Hour General Industry (Veterinary) course receive a US Department of Labor OSHA 10 Hour General Industry card—a credential that holds value for a lifetime.

DISCOVER MORE:
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PROGRAMS OF STUDY



AGRICULTURAL TECHNOLOGY AND MECHANICAL SYSTEMS

PROGRAM OF STUDY

The Agriculture Technology and Mechanical Systems Program of Study explores the occupations and educational opportunities associated with welding and fabrication, electrical, plumbing and concrete construction skills. Students can apply knowledge of safe working practices (OSHA) and engineering technology to agricultural problems concerned with power and machinery. This program of study will also cover AWS SENSE (welding) certifications.

INDUSTRY-BASED CERTIFICATION OPPORTUNITIES

OSHA 10 Construction; AWS D1.1 Structural Steel Welding;
AWS D9.1 Sheet Metal Welding;
AWS Sense Level One: Entry Welder

WORK-BASED LEARNING EXPERIENCES

Agri-Science Fair; Ag Mechanics Shows;
Industry Guest Speakers/Demonstrations; Field Trips;
Community Project Opportunities; Internships

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

FFA; National Technical Honor Society (NTHS)

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	10-YEAR GROWTH
Farm Equipment Mechanics and Service Technicians	\$46,582	326	23%
Mobile Heavy Equipment Mechanics	\$57,943	2,637	24%
Farmers, Ranchers, and Other Agricultural Managers	\$65,490	28,020	4%



RECOMMENDED COURSE SEQUENCE

- 1 LEVEL** Principles of Agriculture, Food, and Natural Resources
- 2 LEVEL** Agricultural Mechanics and Metal Technologies
- 3 LEVEL** Agricultural Structures Design and Fabrications
- 4 LEVEL** Practicum of Agriculture, Food and Natural Resources: Agricultural Technology and Mechanical Systems

NOTE: See reverse for endorsement requirements. Course descriptions and details can be found in the course catalog.

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

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AGRICULTURAL TECHNOLOGY AND MECHANICAL SYSTEMS

BUSINESS AND INDUSTRY

ENDORSEMENT REQUIREMENTS

A student may earn a Business and Industry endorsement by completing the required credits from the CTE Program of Study list below.

**Course has a required prerequisite*



4 CREDITS REQUIRED

Required Course:

- *Agricultural Structures Design and Fabrications (2)

Choose additional credits from the following:

- Principles of Agriculture, Food and Natural Resources (1)
- Agriculture Mechanics and Metal Technologies (1)
- *Practicum in Agriculture, Food and Natural Resources: Agriculture Technology and Mechanical Systems (2)
- *Career Preparation for Programs of Study (3)
- *CTE Project-Based Capstone (1)

NOTE: Students who complete the Agricultural Technology and Mechanical Systems Program of Study requirements are eligible to earn a STEM endorsement by also completing Algebra II, Chemistry and Physics.

INDUSTRY-BASED CERTIFICATION

OSHA 10 Hour Construction course provides training for entry-level workers on the recognition, avoidance, abatement, and prevention of safety and health hazards in workplaces, as well as information regarding workers' rights and employer responsibilities. Through this training, OSHA helps to ensure that workers have the knowledge they need to stay safe on the job. Students who successfully complete the CareerSafe OSHA 10-Hour Construction course receive an OSHA 10 Hour Construction card from the OSHA Training Institute (OTI)—a credential that holds value for a lifetime.

A student can also earn a welder performance qualification by demonstrating the ability to produce welds meeting the prescribed standards in accordance to AWS D1.1 Structural Steel and/or D9.1 Sheet Metal welding code.

NOTES:

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PROGRAMS OF STUDY



PLANT SCIENCE: FLORAL DESIGN

PROGRAM OF STUDY

The Plant Science: Floral Design Program of Study focuses on how to handle, care for, and identify flowers and foliage plants, create fresh and permanent floral designs, develop knowledge of sound business management practices, and explore careers in the floral industry.

INDUSTRY-BASED CERTIFICATION OPPORTUNITIES			
TSFA Knowledge Based Floral Certification; TSFA Level I Floral Certification; TSFA Level II Floral Certification			
WORK-BASED LEARNING EXPERIENCES			
Industry Guest Speakers; Field Trips; Campus and Community Floral Services; Internships			
CAREER AND TECHNICAL STUDENT ORGANIZATIONS			
FFA; National Technical Honor Society (NTHS)			
OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	10-YEAR GROWTH
Pesticide Handlers, Sprayers, and Applicators, Vegetation	\$46,153	205	17%
Biological Technicians	\$45,787	879	14%
Floral Designers	\$34,690	47,000	-2%

Data Source: TexasWages, TexasWorkforce Commission, March 2024




RECOMMENDED COURSE SEQUENCE

- 1 LEVEL** Principles of Agriculture, Food, and Natural Resources
- 2 LEVEL** Floral Design
- 3 LEVEL** Advanced Floral Design
- 4 LEVEL** Practicum in Agriculture, Food, and Natural Resources: Floral Design

NOTE: See reverse for endorsement requirements. Course descriptions and details can be found in the course catalog.

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PLANT SCIENCE: FLORAL DESIGN

BUSINESS AND INDUSTRY

ENDORSEMENT REQUIREMENTS

A student may earn a Business and Industry endorsement by completing the required credits from the CTE Program of Study list below.

**Course has a required prerequisite*



4 CREDITS REQUIRED

Required Course:

- Floral Design (1)

Choose additional credits from the following:

- Principles of Agriculture, Food and Natural Resources (1)
- *Advanced Floral Design (1)
- *Practicum in Agriculture, Food and Natural Resources: Floral Design (2)
- Entrepreneurship I (1)
- *Career Preparation for Programs of Study (3)
- *CTE Project-Based Capstone (1)

NOTE: Students who complete the Plant Science Program of Study requirements are eligible to earn a STEM endorsement by also completing Algebra II, Chemistry and Physics.

INDUSTRY-BASED CERTIFICATION

The Texas State Floral Association Floral Skills (TSFA) and Knowledge Based Certification exam measures the following competencies such as industry-specific vocabulary, plant identification and the scientific and common names of plants.

The TSFA Level One Floral Certification exam includes competencies such as understanding industry-specific vocabulary, plant identification, and common and scientific names of plants. In addition to the written exam, testers will be asked to complete a nine carnation triangle hands-on design and a rose boutonniere hands-on design. The following principles and elements of floral design should be considered as a tester designs the hands-on projects for the certification; Balance, Mechanics, Proportion/Scale, Depth/Rhythm, Focal Point, Dominance, Skeleton, Foliage, Unity, Form and Line.

The TSFA Level Two Floral Certification includes competencies such as understanding industry-specific vocabulary, plant identification, and common and scientific names of plants. In addition to the Level 1 certification, students will be asked to complete a portfolio which includes an asymmetrical arrangement, vase arrangement, bow making/dress a plant, a wired & taped corsage, a stylized permanent botanical, volunteer/sharking of floral skill at two events, and any other designs the student would like to share.

NOTES:

DISCOVER MORE:
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PROGRAMS OF STUDY





ARCHITECTURE AND CONSTRUCTION

Architectural Drafting and Design: Architecture
Architectural Drafting and Design: Interior Design
Carpentry: Construction
Electrical

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

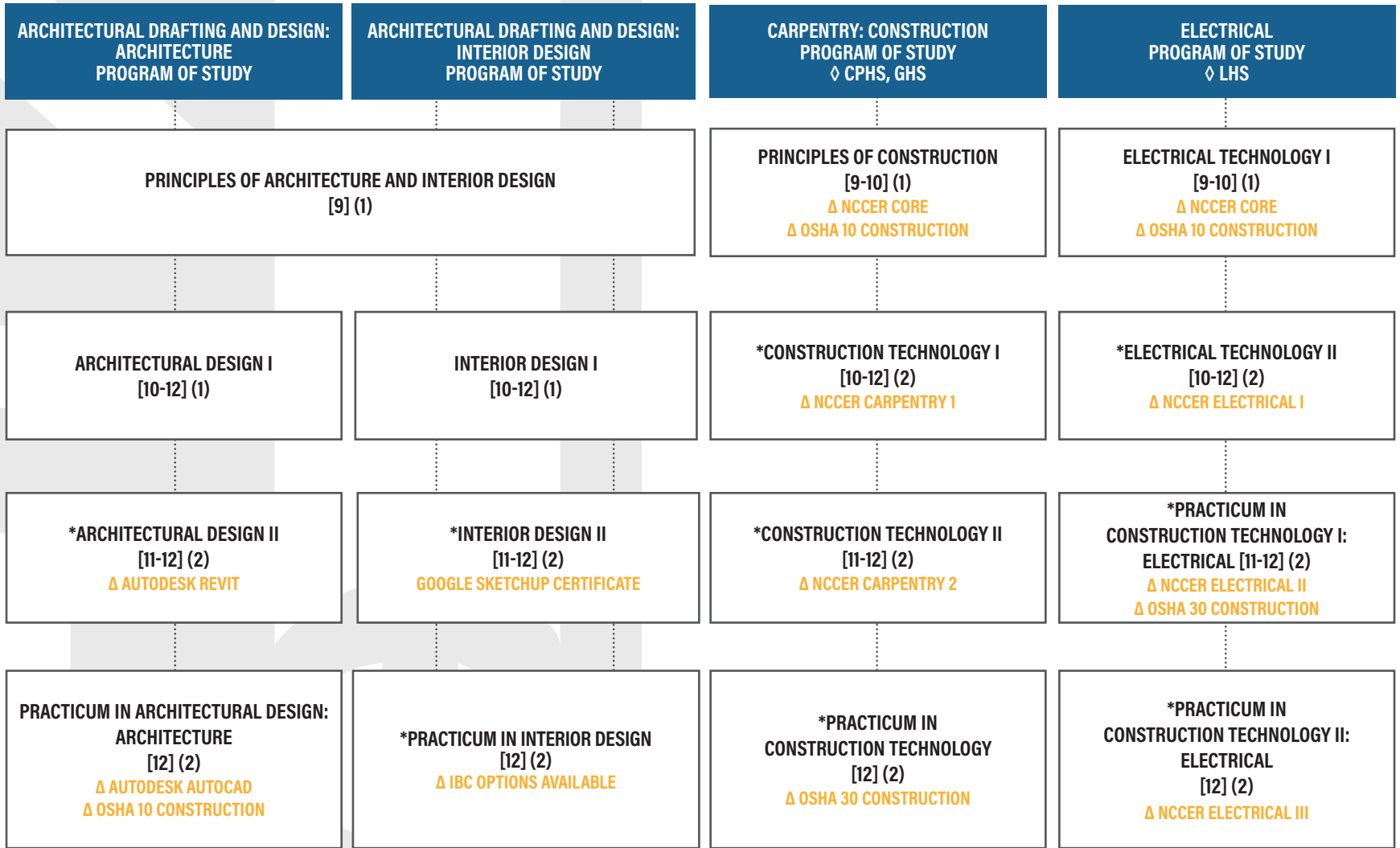


ARCHITECTURE AND CONSTRUCTION

Recommended Course Sequences

*COURSE HAS A REQUIRED PREREQUISITE
 Δ INDUSTRY-BASED CERTIFICATION (IBC)
 [] GRADE LEVEL(S)
 () CREDITS
 ◇ SPECIALIZED PROGRAM

LEVEL 1



ACC DUAL CREDIT HVAC PROGRAM AVAILABLE AT LHS [11-12]

BUSINESS AND INDUSTRY

Note: Students who complete the Architectural Design or Electrical Program of Study requirements are eligible to earn a STEM endorsement by also completing Algebra II, Chemistry, and Physics. Refer to course catalog for additional course sequence options, course descriptions and endorsement requirements. Dual credit courses may be substituted for requirements in appropriate areas; check with your counselor on available options. Specialized programs located on specific high school campuses are open to all LISD students; check with your campus College and Career Transition Coordinator for details.

ARCHITECTURAL DRAFTING AND DESIGN: ARCHITECTURE

PROGRAM OF STUDY

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

INDUSTRY-BASED CERTIFICATION OPPORTUNITIES

OSHA 10 Construction;
Autodesk Associate (Certified User) AutoCAD;
Autodesk Associate (Certified User) Revit

WORK-BASED LEARNING EXPERIENCES

Industry Guest Speakers; Field Trips;
Industry Observations/Interviews;
Industry Collaborative Projects; Internships.

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

SkillsUSA; National Technical Honor Society (NTHS)

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	10-YEAR GROWTH
Architectural and Civil Drafters	\$57,424	1,366	15%
Architects	\$80,903	966	18%
Construction Managers	\$95,072	6,325	24%

Data Source: TexasWages, TexasWorkforce Commission. March 2024



RECOMMENDED COURSE SEQUENCE

- 1 LEVEL** Principles of Architecture and Interior Design
- 2 LEVEL** Architectural Design I
- 3 LEVEL** Architectural Design II
- 4 LEVEL** Practicum in Architectural Design: Architecture

NOTE: See reverse for endorsement requirements. Course descriptions and details can be found in the course catalog.

GET A GLIMPSE:
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THIS PROGRAM OF STUDY



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

Continuous Public Notification of Non-Discrimination

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ARCHITECTURAL DRAFTING AND DESIGN: ARCHITECTURE

BUSINESS AND INDUSTRY

ENDORSEMENT REQUIREMENTS

A student may earn a Business and Industry endorsement by completing the required credits from the CTE Program of Study list below.

**Course has a required prerequisite*

4 CREDITS REQUIRED

Required Course:

- Architectural Design II (2)

Choose additional credits from the following:

- Principles of Architecture and Interior Design (1)
- Architectural Design I (1)
- *Practicum in Architectural Design (2)
- Interior Design I (1)
- Principles of Construction (CPHS & GHS) (1)
- *Career Preparation for Programs of Study (3)
- *CTE Project-Based Capstone (1)

NOTE: Students who complete the Architectural Drafting and Design Program of Study requirements are eligible to earn a STEM endorsement by also completing Algebra II, Chemistry and Physics



INDUSTRY-BASED CERTIFICATION OPPORTUNITIES

The Autodesk (Certified User) Revit certifications demonstrate entry-level knowledge using building information software for careers in architecture, interior design, and construction management. The certification can accelerate career development, improved productivity, and enhance credibility in the architectural and construction management industries.

An Autodesk (Certified User) AutoCAD will demonstrate competency in computer-aided design (CAD). The exam covers the basic use of the AutoCAD software as well as basic drafting and design techniques. Individuals who would like to earn an Autodesk AutoCAD certification will show demonstrated mastery in drawing objects with accuracy, modifying objects, using additional drawing techniques, and organizing objects. In addition, students should know how to reuse existing content, annotate drawings, complete layouts and printing and apply basic drawing skills.

NOTES:

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PROGRAMS OF STUDY



ARCHITECTURAL DRAFTING AND DESIGN: INTERIOR DESIGN

PROGRAM OF STUDY

Architectural Drafting and Design: Interior Design is a technical program that addresses psychological, physiological, and sociological needs of individuals by enhancing the environments in which they live and work. Students will use knowledge and skills related to interior and exterior environments, construction, and furnishings to make wise consumer decisions, increase productivity, promote sustainability, and compete in industry.

INDUSTRY-BASED CERTIFICATION OPPORTUNITIES

Google Sketchup Certificate

WORK-BASED LEARNING EXPERIENCES

Industry Guest Speakers; Industry Site Visits/Field Trips/
Observations; Internships/Externships; Community and
Business Projects; Industry Program Partnerships

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

Family, Career and Community Leaders of America (FCCLA);
National Technical Honor Society (NTHS)

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	10-YEAR GROWTH
Interior Designers	\$63,000	8,800	4%
Architects	\$80,903	966	18%
Construction Managers	\$95,072	6,325	24%

Data Source: TexasWages, TexasWorkforce Commission, March 2024; U.S. Bureau of Labor Statistics.



RECOMMENDED COURSE SEQUENCE

- 1 LEVEL** Principles of Architecture and Interior Design
- 2 LEVEL** Interior Design I
- 3 LEVEL** Interior Design II
- 4 LEVEL** Practicum in Interior Design

NOTE: See reverse for endorsement requirements. Course descriptions and details can be found in the course catalog.

GET A GLIMPSE:
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THIS PROGRAM OF STUDY



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ARCHITECTURAL DRAFTING AND DESIGN: INTERIOR DESIGN

BUSINESS AND INDUSTRY

ENDORSEMENT REQUIREMENTS

A student may earn a Business and Industry endorsement by completing the required credits from the CTE Program of Study list below.

**Course has a required prerequisite*



4 CREDITS REQUIRED

Required Course:

- *Interior Design II (2)

Choose additional credits from the following:

- Principles of Architecture and Interior Design (1)
- Interior Design I (1)
- *Practicum of Interior Design (2)
- Architectural Design I (1)
- Principles of Construction (CPHS & GHS) (1)
- *Career Preparation for Programs of Study (3)
- *CTE Project-Based Capstone (1)

INDUSTRY-BASED CERTIFICATION

Google Sketchup Certificate verifies for industry that students have mastered foundational knowledge and skills of Google Sketchup software.

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PROGRAMS OF STUDY



NOTES:

CARPENTRY: CONSTRUCTION

PROGRAM OF STUDY

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

INDUSTRY-BASED CERTIFICATION OPPORTUNITIES

OSHA 10 Construction; OSHA 30 Construction;
NCCER Core, Carpentry I, and Carpentry II

WORK-BASED LEARNING EXPERIENCES

Industry Guest Speakers; Field Trips; Industry Interviews/
Observations; Community Project Opportunities; Internship.

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

SkillsUSA; National Technical Honor Society (NTHS)

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	10-YEAR GROWTH
Construction and Building Inspectors	\$62,251	1,585	9%
First-Line Supervisors of Construction Trades and Extraction Workers	\$64,473	9,513	243%
Construction Managers	\$95,072	6,325	24%



RECOMMENDED COURSE SEQUENCE

- 1 LEVEL** Principles of Construction
- 2 LEVEL** Construction Technology I
- 3 LEVEL** Construction Technology II
- 4 LEVEL** Practicum in Construction Technology

NOTE: See reverse for endorsement requirements. Course descriptions and details can be found in the course catalog.

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Data Source: TexasWages, TexasWorkforce Commission. March 2024



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

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ENDORSEMENT REQUIREMENTS

A student may earn a Business and Industry endorsement by completing the required credits from the CTE Program of Study list below.

**Course has a required prerequisite*



4 CREDITS REQUIRED

Required Course:

- *Construction Technology II (2)

Choose additional credits from the following:

- Principles of Construction (1)
- *Construction Technology I (2)
- *Practicum in Construction Technology (2)
- Principles of Architecture and Interior Design (1)
- *Career Preparation for Programs of Study (3)
- Entrepreneurship I (1)

INDUSTRY-BASED CERTIFICATION OPPORTUNITIES

OSHA 10-Hour Construction course provides training for entry-level workers on the recognition, avoidance, abatement, and prevention of safety and health hazards in workplaces, as well as information regarding workers' rights and employer responsibilities. Through this training, OSHA helps to ensure that workers have the knowledge they need to stay safe on the job. Students who successfully complete the CareerSafe OSHA 10-Hour Construction course receive an OSHA 10-Hour Construction card from the OSHA Training Institute (OTI)—a credential that holds value for a lifetime.

OSHA 30-Hour Construction extends the foundational knowledge of workplace safety and health standards typically covered in an OSHA 10-Hour course. OSHA 30-Hour students will benefit from expanded topic coverage suitable for careers requiring a more comprehensive understanding of safety standards. Students who successfully complete this OSHA 30-Hour Construction course will receive an OSHA 30-Hour Construction card from the OSHA Training Institute (OTI).

National Center for Construction Education (NCCER) Core certification shows mastery in introductory craft skills such as basic safety, construction math, hand tools, power tools, construction drawings, basic rigging, communication skills, employability skills, and material handling. National Center for Construction Education (NCCER) Carpentry I shows mastery in basic trade knowledge, building materials, fasteners, and adhesives, hand and power tools, construction drawings, specifications, and layouts, floor systems, wall systems, ceiling joist and roof framing, basic stair layout, building envelope systems. National Center for Construction Education (NCCER) Carpentry II shows mastery in commercial drawings, cold-formed steel framing, exterior finishing, thermal and moisture protection, roofing applications, doors and door hardware, drywall installation, drywall finishing, suspended ceilings, window/door/floor/ceiling trim, and cabinet installation.

NOTES:

DISCOVER MORE:
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PROGRAMS OF STUDY



ELECTRICAL

PROGRAM OF STUDY

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

INDUSTRY-BASED CERTIFICATION OPPORTUNITIES

OSHA 10 Construction; OSHA 30 Construction;
NCCER Core; NCCER Electrical I;
NCCER Electrical II; NCCER Electrical III

WORK-BASED LEARNING EXPERIENCES

Industry Guest Speakers; Field Trips; Industry Mentors;
Community Project Opportunities; Internships

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

SkillsUSA; National Technical Honor Society (NTHS)

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	10-YEAR GROWTH
Electricians Helpers	\$38,140	1,632	20%
Electricians	\$54,769	9,221	27%
Construction Managers	\$95,072	6,325	24%

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RECOMMENDED COURSE SEQUENCE

- 1 LEVEL** Electrical Technology I (LHS)
- 2 LEVEL** Electrical Technology II (LHS)
- 3 LEVEL** Practicum in Construction Technology I: Electrical (LHS)
- 4 LEVEL** Practicum in Construction Technology II: Electrical (LHS)

NOTE: See reverse for endorsement requirements. Course descriptions and details can be found in the course catalog.



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ENDORSEMENT REQUIREMENTS

A student may earn a Business and Industry endorsement by completing the required credits from the CTE Program of Study list below.

**Course has a required prerequisite*



4 CREDITS REQUIRED

Required Course:

- *Electrical Technology II (2) (LHS)

Choose additional credits from the following:

- Electrical Technology I (1)
- *Practicum in Construction Technology I: Electrical (2)
- *Practicum in Construction Technology II: Electrical (2)
- Principles of Construction (CPHS & GHS) (1)
- Principles of Architecture and Interior Design (1)
- *Career Preparation for Programs of Study (3)
- Entrepreneurship I (1)

NOTE: Students who complete the Electrical Program of Study requirements are eligible to earn a STEM endorsement by also completing Algebra II, Chemistry and Physics.

INDUSTRY-BASED CERTIFICATION

OSHA 10-Hour Construction course provides training for entry-level workers on the recognition, avoidance, abatement, and prevention of safety and health hazards in workplaces, as well as information regarding workers' rights and employer responsibilities. Through this training, OSHA helps to ensure that workers have the knowledge they need to stay safe on the job. Students who successfully complete the CareerSafe OSHA 10-Hour Construction course receive an OSHA 10-Hour Construction card from the OSHA Training Institute (OTI)—a credential that holds value for a lifetime.

OSHA 30-Hour Construction extends the foundational knowledge of workplace safety and health standards typically covered in an OSHA 10-Hour course. OSHA 30-Hour students will benefit from expanded topic coverage suitable for careers requiring a more comprehensive understanding of safety standards. Students who successfully complete this OSHA 30-Hour Construction course will receive an OSHA 30-Hour Construction card from the OSHA Training Institute (OTI).

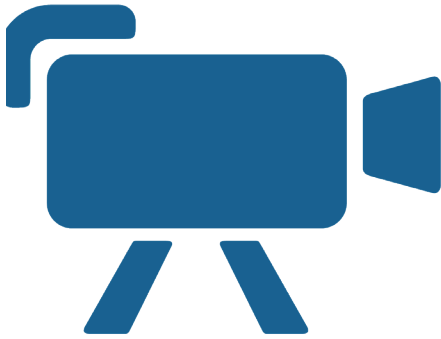
National Center for Construction Education (NCCER) Core certification shows mastery in introductory craft skills such as basic safety, construction math, hand tools, power tools, construction drawings, basic rigging, communication skills, employability skills, and material handling. The NCCER Level I Electrical exam covers the topics such as an orientation to the electrical trade, electrical safety, introduction to electrical circuits, electrical theory, introduction to the national electrical code, device boxes, hand bending, raceways and fittings, conductors and cables, basic electrical construction drawings, residential electrical services, and electrical test equipment.

The NCCER Level II Electrical exam covers the topics such as alternating current, motors: theory and application, electric lighting, conduit bending, pull and junction boxes, conductor installations, cable tray, conductor terminations and splices, grounding and bonding, circuit breakers and fuses, control systems and fundamental concepts. The NCCER Level III Electrical exam covers the topics such as Load Calculations – Branch and Feeder Circuits, Conductor Selection and Calculations, Practical Applications of Lighting, Practical Applications of Lighting, Overcurrent Protection, Distribution Equipment, Transformers, Commercial Electrical Services, Motor Calculations, Voice, Data, and Video, & Motor Controls.

NOTES:

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PROGRAMS OF STUDY





ARTS, AUDIO/VIDEO TECHNOLOGY AND COMMUNICATIONS

Graphic Design and Interactive Media: Animation

Graphic Design and Interactive Media: Fashion Design

Graphic Design and Interactive Media: Graphic Design and Illustration

Digital Communications: Audio/Video Production

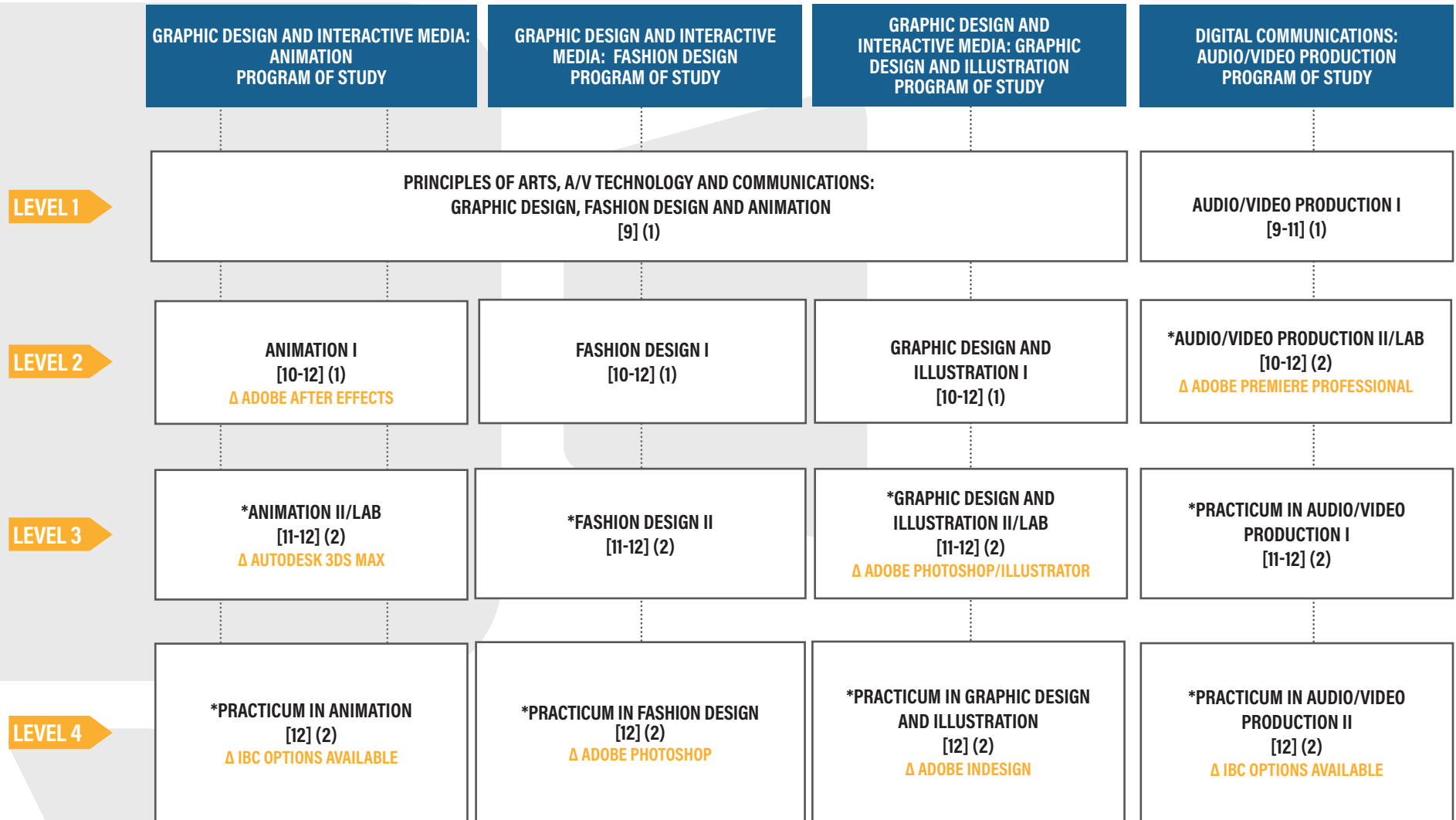
The Arts, A/V Technology and Communications (AAVTC) Career Cluster® focuses on careers in designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services. Careers in the AAVTC Career Cluster®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



ARTS, AUDIO/VIDEO TECHNOLOGY AND COMMUNICATIONS

Recommended Course Sequences

*COURSE HAS A REQUIRED PREREQUISITE
Δ INDUSTRY-BASED CERTIFICATION (IBC)
[] GRADE LEVEL(S)
() CREDITS



BUSINESS AND INDUSTRY

Note: Refer to course catalog for additional course sequence options, course descriptions and endorsement requirements.
Dual credit courses may be substituted for requirements in appropriate areas; check with your counselor on available options.

GRAPHIC DESIGN AND INTERACTIVE MEDIA: ANIMATION

PROGRAM OF STUDY

The Graphic Design and Interactive Media: Animation Program of Study explores the occupations and educational opportunities associated with designing or creating graphics to meet specific commercial or promotional needs, such as packaging, displays, or logos. This program of study may also include exploration into designing clothing and accessories, and creating special effects, animation, or other visual images using film, video, computers, or other electronic tools and media, for use in computer games, movies, music videos, and commercials.

INDUSTRY-BASED CERTIFICATION OPPORTUNITIES

Adobe Certified Professional (ACP) – After Effects
Adobe Certified Professional (ACP) – 3DS Max

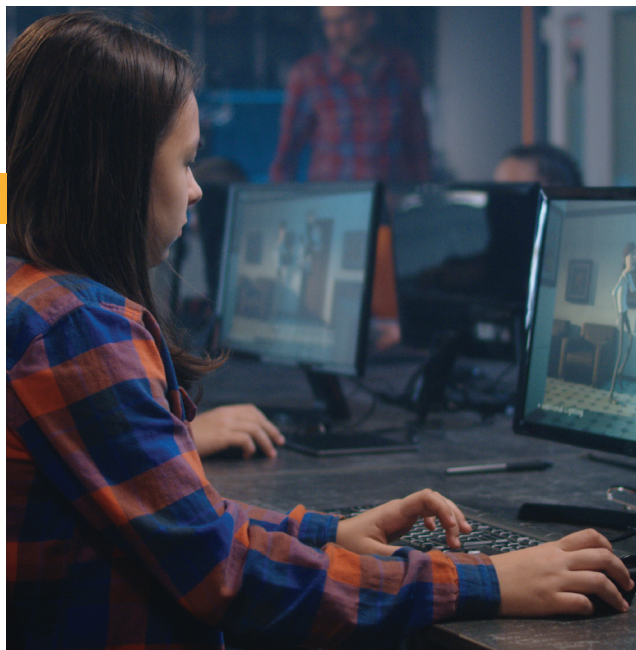
WORK-BASED LEARNING EXPERIENCES

Industry Guest Speakers; Field Trips; Industry Observations/
Interviews; Industry Collaborative Projects; Internships

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

SkillsUSA; National Technical Honor Society (NTHS); UIL

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	10-YEAR GROWTH
Software Developers	\$111,705	15,324	36%
Graphic Designers	\$50,973	1,766	10%
Art Directors	\$81,926	619	18%



RECOMMENDED COURSE SEQUENCE

- 1 LEVEL** Principles of Arts, A/V Technology and Communications: Graphic Design, Fashion Design and Animation
- 2 LEVEL** Animation I
- 3 LEVEL** Animation II/Lab
- 4 LEVEL** Practicum in Animation

NOTE: See reverse for endorsement requirements. Course descriptions and details can be found in the course catalog.

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THIS PROGRAM OF STUDY



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

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GRAPHIC DESIGN AND INTERACTIVE MEDIA: ANIMATION

BUSINESS AND INDUSTRY

ENDORSEMENT REQUIREMENTS

A student may earn a Business and Industry endorsement by completing the required credits from the CTE Program of Study list below.

**Course has a required prerequisite*

4 CREDITS REQUIRED

Required Course:

- *Animation II/Lab (2)

Choose additional credits from the following:

- Principles of Arts, A/V Technology and Communications: Graphic Design, Fashion Design and Animation (1)
- Animation I (1)
- *Practicum in Animation (2)
- Graphic Design and Illustration I (1)
- Fashion Design I (1)
- Entrepreneurship I (1)
- *Career Preparation for Programs of Study (3)
- *Independent Study in Technology Applications (1)



INDUSTRY-BASED CERTIFICATIONS DETAILS

An Adobe Certified Professional After Effects certification is an industry-recognized credential that effectively validates one's skills in Adobe digital-media software. An individual earning this certification has approximately 150 hours of instruction and hands-on experience with the product, and is familiar with core features and capabilities, as well as relevant career concepts.

An Autodesk Certified User certification in 3DS MAX demonstrate competency in 3-D modeling and animation software skills to start a career in the game, film, or motion-graphic industries. An individual earning this certification has approximately 150 hours of instruction and hands-on experience with the product.

NOTES:

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GRAPHIC DESIGN AND INTERACTIVE MEDIA: FASHION DESIGN

PROGRAM OF STUDY

The Graphic Design and Interactive Media: Fashion Design Program of Study allows students to experience all aspects of the fashion industry with an emphasis on textiles, apparel, design and construction. Students will develop professional standards and employability skills as required in the fashion industry. Fashion Design is a hands-on lab-based program where students produce fashion, textile, and apparel projects, learn industry equipment/technologies/software, create a portfolio, and gain business and industry career experiences.

INDUSTRY-BASED CERTIFICATION OPPORTUNITIES

Adobe Certified Associate (ACA) Photoshop

WORK-BASED LEARNING EXPERIENCES

Industry Guest Speakers; Industry Site Visits/Field Trips;
Community Service Projects; Internships/Externships

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

Family, Career, and Community Leaders of America (FCCLA);
National Technical Honor Society (NHTS)

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	10-YEAR GROWTH
Fashion Designers	\$79,290	2,100	5%
Graphic Designers	\$50,973	1,766	10%
Art Directors	\$81,926	619	18%

Data Source: TexasWages, TexasWorkforce Commission, March 2024; U.S. Bureau of Labor Statistics.



RECOMMENDED COURSE SEQUENCE

1
LEVEL

Principles of Arts, A/V Technology and Communications: Graphic Design, Fashion Design and Animation

2
LEVEL

Fashion Design I

3
LEVEL

Fashion Design II

4
LEVEL

Practicum in Fashion Design

NOTE: See reverse for endorsement requirements. Course descriptions and details can be found in the course catalog.

GET A GLIMPSE:
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THIS PROGRAM OF STUDY



The Fashion Design pathway within the Arts, A/V Technology and Communications (AAVTC) Career Cluster® focuses on careers in design, production, exhibition, performance, including visual arts textile analysis, apparel design and construction. Careers in the AAVTC career cluster require a creative aptitude, a background in design, a strong academic foundation, and a proficiency in technical sewing skills and garment construction.

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GRAPHIC DESIGN AND INTERACTIVE MEDIA: FASHION DESIGN

BUSINESS AND INDUSTRY

ENDORSEMENT REQUIREMENTS

A student may earn a Business and Industry endorsement by completing the required credits from the CTE Program of Study list below.

**Course has a required prerequisite*

4 CREDITS REQUIRED

Required Course:

- *Fashion Design II (2)

Choose additional credits from the following:

- Principles of Arts, A/V Technology and Communications: Graphic Design, Fashion Design and Animation (1)
- Fashion Design I (1)
- *Practicum in Fashion Design (2)
- Animation I (1)
- Entrepreneurship I (1)
- *Independent Study in Technology Applications (1)
- Graphic Design and Illustration I (1)
- *Career Preparation for Programs of Study (3)



INDUSTRY-BASED CERTIFICATION

The Adobe Certified Associate Photoshop exam measures the following domains: working in the design industry, project setup and interface, organizing documents, creating and modifying visual elements, and publishing digital media.

DISCOVER MORE:
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PROGRAMS OF STUDY



NOTES:

GRAPHIC DESIGN AND INTERACTIVE MEDIA: GRAPHIC DESIGN AND ILLUSTRATION

PROGRAM OF STUDY

The Graphic Design and Interactive Media: Graphic Design and Illustration Program of Study explores the occupations and educational opportunities associated with designing graphics to meet specific commercial or promotional needs, such as advertisements, packaging, or logos. This program of study may also include exploration into designing clothing, creating animation, or the generation of other visual media for video, web, and interactive applications.

INDUSTRY-BASED CERTIFICATION OPPORTUNITIES

Adobe Certified Associate: Illustrator, Photoshop, InDesign

WORK-BASED LEARNING EXPERIENCES

Industry Guest Speakers; Field Trips; Industry Observations/Interviews; Industry/Community/Campus Collaborative or Service Projects; Student-Based Enterprise; Internships.

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

SkillsUSA; National Technical Honor Society (NTHS)

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	10-YEAR GROWTH
Software Developers	\$111,705	15,324	36%
Graphic Designers	\$50,973	1,766	10%
Art Directors	\$81,926	619	18%

Data Source: TexasWages, TexasWorkforce Commission. March 2024



RECOMMENDED COURSE SEQUENCE

- 1 LEVEL** Principles of Arts, A/V Technology and Communications: Graphic Design, Fashion Design and Animation
- 2 LEVEL** Graphic Design and Illustration I
- 3 LEVEL** Graphic Design and Illustration II/Lab
- 4 LEVEL** Practicum in Graphic Design and Illustration

NOTE: See reverse for endorsement requirements. Course descriptions and details can be found in the course catalog.

GET A GLIMPSE:
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THIS PROGRAM OF STUDY



The Fashion Design pathway within the Arts, A/V Technology and Communications (AAVTC) Career Cluster® focuses on careers in design, production, exhibition, performance, including visual arts textile analysis, apparel design and construction. Careers in the AAVTC career cluster require a creative aptitude, a background in design, a strong academic foundation, and a proficiency in technical sewing skills and garment construction.

Continuous Public Notification of Non-Discrimination

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GRAPHIC DESIGN AND INTERACTIVE MEDIA: GRAPHIC DESIGN AND ILLUSTRATION

BUSINESS AND INDUSTRY

ENDORSEMENT REQUIREMENTS

A student may earn a Business and Industry endorsement by completing the required credits from the CTE Program of Study list below.

**Course has a required prerequisite*

4 CREDITS REQUIRED

Required Course:

- *Graphic Design and Illustration II/Lab (2)

Choose additional credits from the following:

- Principles of Arts, A/V Technology and Communications: Graphic Design, Fashion Design and Animation (1)
- Graphic Design and Illustration I (1)
- *Practicum in Graphic Design and Illustration (2)
- Fashion Design I (1)
- Animation I (1)
- Entrepreneurship I (1)
- *Career Preparation for Programs of Study (3)
- *Independent Study in Technology Applications (1)



INDUSTRY-BASED CERTIFICATION

An Adobe/Autodesk certification is an industry-recognized credential that effectively validates one's skills in Adobe digital-media software. An individual earning this certification has approximately 150 hours of instruction and hands-on experience with the product, and is familiar with core features and capabilities, as well as relevant career concepts.

The Adobe Certified Associate Photoshop exam measures the following domains: working in the design industry, project setup and interface, organizing documents, creating and modifying visual elements, and publishing digital media.

The Adobe Certified Associate Illustrator exam measures the following domains: working in the design industry, project setup and interface, organizing documents, creating and modifying visual elements, and publishing digital media.

The Adobe Certified Associate InDesign exam measures the following domains: working in the design industry, project setup and interface, organizing documents, creating and modifying visual elements, and publishing digital media.

NOTES:

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DIGITAL COMMUNICATIONS: AUDIO/VIDEO PRODUCTION

PROGRAM OF STUDY

The Digital Communications: Audio/Video Production Program of Study explores all aspects of the production process, including writing, filming and editing. Students will be exposed to a wide range of media genres such as podcasting, film-making, broadcast journalism and other on-line content creation. Work created by students will be shared and published on a variety of platforms, including both on and off campus. Students should be creative problem solvers, self-motivated, and task-oriented. Those in upper level classes will be expected to produce content outside of regular school hours.

INDUSTRY-BASED CERTIFICATION OPPORTUNITIES

Adobe Certified Associate (ACA): Premiere Professional

WORK-BASED LEARNING EXPERIENCES

Industry Guest Speakers; Field Trips; Non-profit PSA/Marketing Materials Production; Video Scoreboard & Camera Operators for Live Events; Student Production Services for School Organizations/Local Businesses; Industry Professional Interview Projects; Local/National Short Film Competitions; Internships.

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

SkillsUSA; Interscholastic League Press Conference (ILPC); UIL; National Technical Honor Society (NTHS)

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	10-YEAR GROWTH
Camera Operators, Television, Video, and Film	\$48,422	155	20%
Audio and Video Technicians	\$46,319	626	30%
Producers and Directors	\$65,029	522	12%



RECOMMENDED COURSE SEQUENCE

- 1 LEVEL** Audio/Video Production I
- 2 LEVEL** Audio/Video Production II/Lab
- 3 LEVEL** Practicum in Audio/Video Production I
- 4 LEVEL** Practicum in Audio/Video Production II

NOTE: See reverse for endorsement requirements. Course descriptions and details can be found in the course catalog.

GET A GLIMPSE:
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THIS PROGRAM OF STUDY



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

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ENDORSEMENT REQUIREMENTS

A student may earn a Business and Industry endorsement by completing the required credits from the CTE Program of Study list below.
**Course has a required prerequisite*



4 CREDITS REQUIRED

Required Course:

- Audio/Video Production II/Lab (2)

Choose additional credits from the following:

- Principles of Arts, A/V Technology and Communications: Graphic Design, Fashion Design and Animation (1)
- Audio/Video Production I (1)
- *Practicum in Audio/Video Production I (2)
- *Practicum in Audio/Video Production II (2)
- Career Preparation for Programs of Study (3)
- Entrepreneurship I (1)

INDUSTRY-BASED CERTIFICATION

An Adobe certification is an industry-recognized credential that effectively validates one’s skills in Adobe digital-media software. An individual earning this certification has approximately 150 hours of instruction and hands-on experience with the product, and is familiar with core features and capabilities, as well as relevant career concepts.

The Adobe Certified Associate Premiere Pro exam measures the following domains: working in the video industry, project setup and interface, organizing video projects, creating and modifying visual elements and publishing digital media.

NOTES:

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PROGRAMS OF STUDY





BUSINESS, MARKETING, AND FINANCE

Accounting & Financial Services: Accounting

Accounting & Financial Services: Personal Finance

Business Management

Entrepreneurship

Entrepreneurship: INCubatoredu

Marketing & Sales

Real Estate

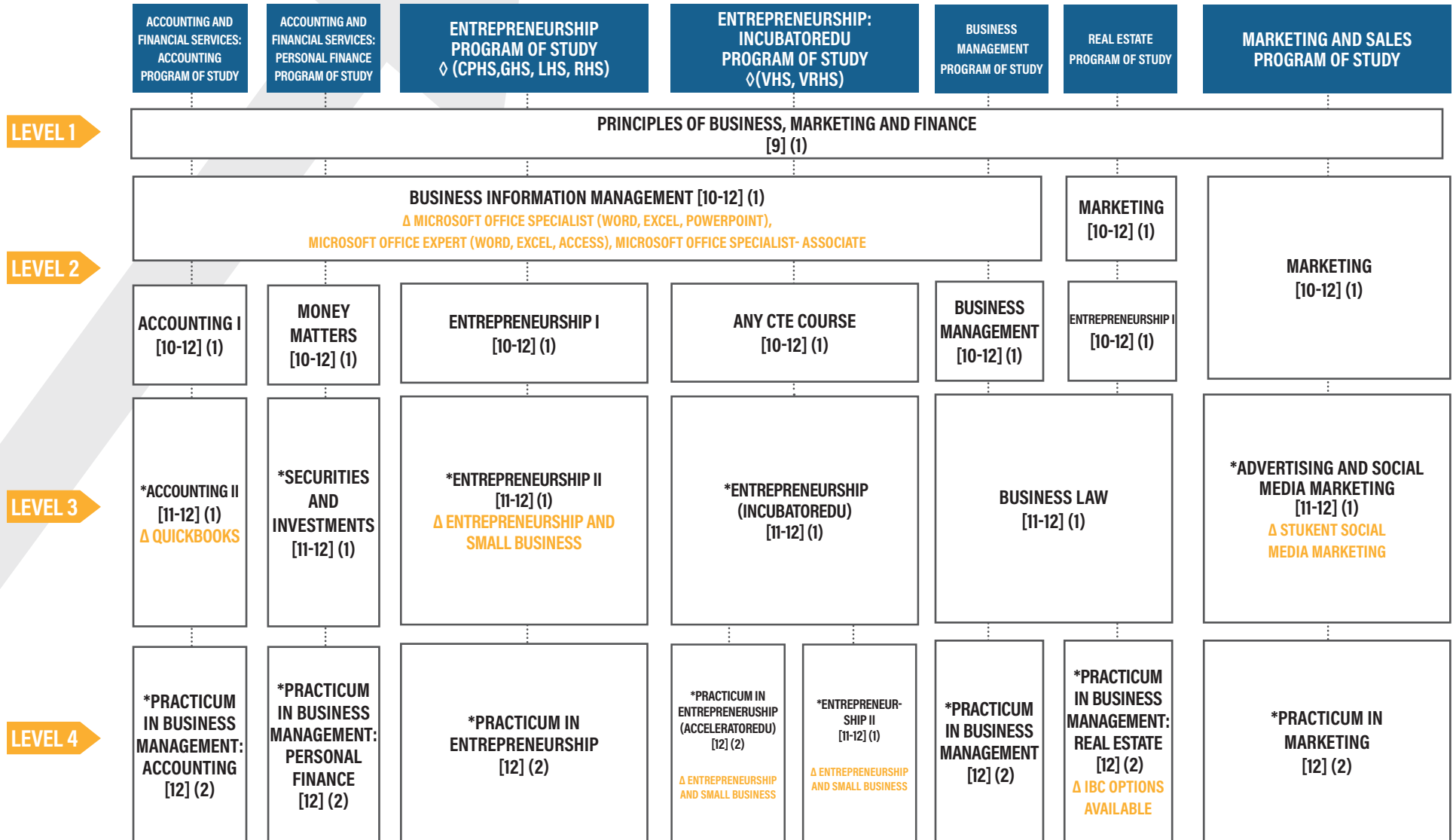
The Business, Marketing, and Finance Career Cluster® focuses on careers in planning, organizing, directing, and evaluating business functions essential to efficient and productive business operations.



BUSINESS, MARKETING, AND FINANCE

Recommended Course Sequences

*COURSE HAS A REQUIRED PREREQUISITE
 Δ INDUSTRY-BASED CERTIFICATION (IBC)
 [] GRADE LEVEL(S)
 () CREDITS
 ◇ SPECIALIZED PROGRAM



BUSINESS AND INDUSTRY

Note: Refer to course catalog for additional course sequence options, course descriptions, General Business, Marketing, and Finance Program of Study option, and endorsement requirements. Dual credit courses may be substituted for requirements in appropriate areas; check with your counselor on available options. Specialized programs located on specific high school campuses are open to all LISD students; check with your campus College and Career Transition Coordinator for details.

ACCOUNTING AND FINANCIAL SERVICES: ACCOUNTING

PROGRAM OF STUDY

The Accounting and Financial Services: Accounting Program of Study teaches students personal and professional money management skills. Students will use a variety of analytical tools and software platforms to understand and evaluate how money flows through a business, establish personal and/or business budgets, prepare and interpret financial statements or even build a personal investment portfolio. By choosing the courses offered in this program students will learn the skills needed to prepare for financial service careers including accounting, banking, corporate finance, auditing, and financial planning.

INDUSTRY-BASED CERTIFICATION OPPORTUNITIES

QuickBooks Certified User

WORK-BASED LEARNING EXPERIENCES

Personal Finance Lab Stock Market Simulation; Industry Guest Speakers; H&R Budget Challenge; Knowledge Matters Personal Finance Simulation.

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

DECA; National Technical Honor Society (NTHS); UIL

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	10-YEAR GROWTH
Tax Preparers	\$56,956	898	14%
Accountants and Auditors	\$78,022	12,989	20%
Personal Financial Advisors	\$77,605	1,877	21%

Data Source: TexasWages, TexasWorkforce Commission. March 2024



RECOMMENDED COURSE SEQUENCE

- 1 LEVEL** Principles of Business, Marketing, and Finance
- 2 LEVEL** Accounting I; Business Information Management I
- 3 LEVEL** Accounting II
- 4 LEVEL** Practicum in Business Management: Accounting

NOTE: See reverse for endorsement requirements. Course descriptions and details can be found in the course catalog.

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ACCOUNTING AND FINANCIAL SERVICES: ACCOUNTING

BUSINESS AND INDUSTRY

ENDORSEMENT REQUIREMENTS

A student may earn a Business and Industry endorsement by completing the required credits from the CTE Program of Study list below.

**Course has a required prerequisite*

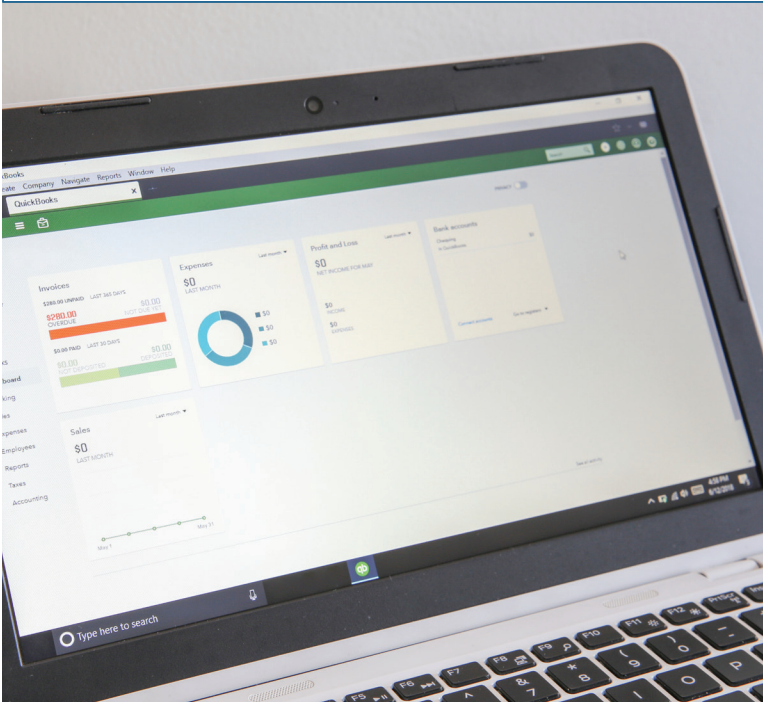
4 CREDITS REQUIRED

Required Courses: Choose at least one credit from the following:

- *Accounting II (1)
- *Practicum in Business Management: Accounting (2)

Choose additional credits from the following:

- Principles of Business, Marketing and Finance (1)
- Accounting I (1)
- Entrepreneurship I (1)
- Money Matters (1)
- Business Information Management I (1)
- *Career Preparation for Programs of Study (3)



INDUSTRY-BASED CERTIFICATION

Accounting II students have the opportunity to take the Intuit Quickbooks Online exam. Candidates are tested on basic accounting knowledge and utilities of the Quickbooks Online software that includes pre-built sample comparisons, multiple company files, annual updates, and data backed-up and restored. Students who become certified in Quickbooks, could potentially earn income performing bookkeeping services for small to medium sized businesses. Quickbooks is a key tool for resume and college applications. Earning certification gives third party validation that our students have mastered the software and can use it on the job.

Microsoft certifications are also available to students who take Business Information Management under the endorsement course options. Through MOS certification a user demonstrates the ability to command the full features and functionality of Microsoft Office including Word, Excel and PowerPoint, preparing them for future academic or workforce opportunities. MOS certification benefits students with job opportunities as many employers look for certification in their applicant screening process. Also, many colleges and universities requires MOS certification as a pre-requisite to some degree plans and/or offer college credit or course exemption for an equivalent course. Students taking Business Information Management will have the opportunity to learn the skills needed to successfully pass the MOS Associate certification exams in Word, Excel and PowerPoint and possibly the advanced features of MOS Expert in Word and Excel.

NOTES:

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ACCOUNTING AND FINANCIAL SERVICES: PERSONAL FINANCE

PROGRAM OF STUDY

The Accounting and Financial Services: Personal Finance Program of Study teaches students personal and professional money management skills. Students will use a variety of analytical tools and software platforms to understand how to establish personal and/or business budgets, understand security and investment operations, or even build a personal investment portfolio. By choosing the courses offered in this program students will learn the skills needed to prepare for personal financial service careers including investment banking, insurance, and financial planning.

WORK-BASED LEARNING EXPERIENCES

Personal Finance Lab Stock Market Simulation; Industry Guest Speakers; H&R Budget Challenge; Knowledge Matters Personal Finance Simulation. Internships and shadowing opportunities within the practicum course.

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

SkillsUSA; National Technical Honor Society (NTHS)

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	10-YEAR GROWTH
Tax Preparers	\$56,956	898	14%
Accountants and Auditors	\$78,022	12,989	20%
Personal Financial Advisors	\$77,605	1,877	21%

Data Source: TexasWages, TexasWorkforce Commission, March 2024

Personal Finance



RECOMMENDED COURSE SEQUENCE

1
LEVEL

Principles of Business, Marketing, & Finance

2
LEVEL

Money Matters; Business Information Management I

3
LEVEL

Securities and Investments

4
LEVEL

Practicum in Business Management: Personal Finance

NOTE: See reverse for endorsement requirements. Course descriptions and details can be found in the course catalog.

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ACCOUNTING AND FINANCIAL SERVICES: PERSONAL FINANCE

ENDORSEMENT REQUIREMENTS

A student may earn a Business and Industry endorsement by completing the required credits from the CTE Program of Study list below.
**Course has a required prerequisite*



4 CREDITS REQUIRED

Required Courses: Choose at least one credit from the following:

- *Security and Investments (1)
- *Practicum in Business Management: Personal Finance (2)

Choose additional credits from the following:

- Principles of Business, Marketing and Finance (1)
- Money Matters (1)
- Accounting I (1)
- Entrepreneurship I (1)
- Business Information Management I (2)
- *Career Preparation for Programs of Study (3)

INDUSTRY-BASED CERTIFICATION

Microsoft certifications are also available to students who take Business Information Management under the endorsement course options. Through MOS certification a user demonstrates the ability to command the full features and functionality of Microsoft Office including Word, Excel and PowerPoint, preparing them for future academic or workforce opportunities. MOS certification benefits students with job opportunities as many employers look for certification in their applicant screening process. Also, many colleges and universities requires MOS certification as a pre-requisite to some degree plans and/or offer college credit or course exemption for an equivalent course. Students taking Business Information Management will have the opportunity to learn the skills needed to successfully pass the MOS Associate certification exams in Word, Excel and PowerPoint and possibly the advanced features of MOS Expert in Word and Excel.

NOTES:

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BUSINESS MANAGEMENT

PROGRAM OF STUDY

The Business Management Program of Study leads students in future ready soft skills such as teamwork, communication and collaboration. Students will learn how to manage projects, staff an organization, and set workplace policies. Students will find solutions to the changing global marketplace, including legal conduct, and how it influences industry environments and operations.

INDUSTRY-BASED CERTIFICATION OPPORTUNITIES

Microsoft Office Specialist Associate: Word, Excel, PowerPoint
Microsoft Office Specialist Expert - Word, Excel

WORK-BASED LEARNING EXPERIENCES

Industry Guest Speakers; Industry Field Trips; Project Management Experience;
Community Awareness Projects; Operate a School Store (LHS, GHS);
Practicum with Internships and Job Shadowing Opportunities.

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

DECA; National Technical Honor Society (NTHS)

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	10-YEAR GROWTH
First-Line Supervisors of Administrative Support Workers	\$59,585	13,885	9%
Human Resources Specialists	\$61,278	6,239	23%
General and Operations Managers	\$83,220	25,450	23%

Data Source: TexasWages, TexasWorkforce Commission. March 2024



RECOMMENDED COURSE SEQUENCE

- 1 LEVEL** Principles of Business, Marketing, and Finance
- 2 LEVEL** Business Management; Business Information Management
- 3 LEVEL** Business Law
- 4 LEVEL** Practicum in Business Management

NOTE: See reverse for endorsement requirements. Course descriptions and details can be found in the course catalog.

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ENDORSEMENT REQUIREMENTS

A student may earn a Business and Industry endorsement by completing the required credits from the CTE Program of Study list below.

**Course has a required prerequisite*

4 CREDITS REQUIRED

Required Course:

- Business Management (1)

Choose additional credits from the following:

- Principles of Business, Marketing, & Finance (1)
- Business Information Management I (1)
- Business Law (1)
- Entrepreneurship I (1)
- *Practicum in Business Management (2)
- *Career Preparation for Programs of Study (3)



INDUSTRY-BASED CERTIFICATION

Microsoft Office Specialist (MOS) is an industry certification program available to students enrolled in the Business Information Management course. Through MOS certification a user demonstrates the ability to command the full features and functionality of Microsoft Office including Word, Excel and PowerPoint, preparing them for future academic or workforce opportunities. MOS certification benefits students with job opportunities as many employers look for certification in their applicant screening process. Also, many colleges and universities requires MOS certification as a pre-requisite to some degree plans and/or offer college credit or course exemption for an equivalent course. Students taking Business Information Management will have the opportunity to learn the skills needed to successfully pass the MOS Associate certification exams in Word, Excel and PowerPoint and possibly the advanced features of MOS Expert in Word and Excel.

NOTES:

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ENTREPRENEURSHIP

PROGRAM OF STUDY

Through the Entrepreneurship Program of Study, students will learn the necessary skills to plan, develop, and launch a start up business. During this process students will explore various business opportunities, complete a feasibility analysis, create and organize a plan to promote business and its products and services, and determine the return on investment and potential profit.

INDUSTRY-BASED CERTIFICATION OPPORTUNITIES			
Entrepreneurship and Small Business (ESB)			
WORK-BASED LEARNING EXPERIENCES			
Industry Guest Speakers and Mentors; Job Shadows; Internships; Industry and Post Secondary Education Site Visits/Field Trips.			
CAREER AND TECHNICAL STUDENT ORGANIZATIONS			
DECA; National Technical Honor Society (NTHS)			
OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	10-YEAR GROWTH
General and Operations Managers	\$83,220	25,450	23%
Management Analysts	\$93,983	6,030	25%
Chief Executives	\$163,537	648	3%

Data Source: TexasWages, TexasWorkforce Commission. March 2024



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RECOMMENDED COURSE SEQUENCE

- 1 LEVEL** Principles of Business, Marketing, and Finance
- 2 LEVEL** Entrepreneurship I; Business Information Management
- 3 LEVEL** Entrepreneurship II
- 4 LEVEL** Practicum in Entrepreneurship

NOTE: See reverse for endorsement requirements. Course descriptions and details can be found in the course catalog.

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**Course has a required prerequisite*



- *Entrepreneurship II (1)
- *Practicum in Entrepreneurship (2)

- Principles of Business, Marketing and Finance (1)
- Business Information Management I (1)
- Entrepreneurship I (1)
- Mobile App Development (1)
- *Career Preparation for Programs of Study (3)
- *CTE Project-Based Capstone (1)

NOTES:



ENTREPRENEURSHIP: INCubatoredu

PROGRAM OF STUDY

The Uncharted Learning entrepreneurship curriculum provides true engagement in a learn-by-doing, real-world setting. Students learn and apply business start-up practices and concepts to projects they're passionate about. They build, test, learn, apply – embracing the cycle of experimentation, which is core to entrepreneurship and great training ground for life – they get comfortable with failing and learning from failure. Working in teams and being supported by a dynamic mix of teachers, coaches, and mentors, all translates to deeper learning and skill building.

INDUSTRY-BASED CERTIFICATION OPPORTUNITIES

Entrepreneurship and Small Business (ESB)

WORK-BASED LEARNING EXPERIENCES

Industry Guest Speakers/Panels; Industry Mentors; Job Shadows; Internships; Industry and Post Secondary Education Site Visits/Field Trips; Industry Partnerships; Pitch Competitions.

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

DECA; National Technical Honor Society (NTHS)

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	10-YEAR GROWTH
General and Operations Managers	\$83,220	25,450	23%
Management Analysts	\$93,983	6,030	25%
Chief Executives	\$163,537	648	3%

Data Source: TexasWages, TexasWorkforce Commission. March 2024



RECOMMENDED COURSE SEQUENCE

- 1 LEVEL** Principles of Business, Marketing, and Finance
- 2 LEVEL** Business Information Management; Any CTE Course
- 3 LEVEL** Entrepreneurship I (INCubatoredu) (VRHS, VHS)
- 4 LEVEL** Practicum in Entrepreneurship (ACCElляторedu) (VRHS, VHS); Entrepreneurship II

NOTE: See reverse for endorsement requirements. Course descriptions and details can be found in the course catalog.

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ENDORSEMENT REQUIREMENTS

A student may earn a Business and Industry endorsement by completing the required credits from the CTE Program of Study list below.

**Course has a required prerequisite*



4 CREDITS REQUIRED

Required Courses:

- *Entrepreneurship I (INCubatoredu) (1)
- *Practicum in Entrepreneurship (ACCEleratoredu) (2)
OR Entrepreneurship II (1)

Choose additional credits from the following:

- Principles of Business, Marketing and Finance (1)
- Business Information Management (1)
- Mobile App Development (1)
- *Career Preparation for Programs of Study (3)
- *CTE Project-Based Capstone (1)

INDUSTRY-BASED CERTIFICATION

The ESB certification is built to test and validate foundation-level concepts and knowledge in entrepreneurship and small business management. These core concepts include entrepreneurship; recognizing and evaluating opportunities; planning for, starting, and operating a business; marketing and sales; and financial management. Successful completion of this certification will validate skills and knowledge for those students interested in working in a middle-skill trade profession as their own boss and those with entrepreneurship and small business career aspirations. The ESB certification is endorsed by the Network for Teaching Entrepreneurship and the American Council on Education.

Microsoft certifications are also available to students who take Business Information Management under the endorsement course options. Through MOS certification a user demonstrates the ability to command the full features and functionality of Microsoft Office including Word, Excel and PowerPoint, preparing them for future academic or workforce opportunities. MOS certification benefits students with job opportunities as many employers look for certification in their applicant screening process. Also, many colleges and universities requires MOS certification as a pre-requisite to some degree plans and/or offer college credit or course exemption for an equivalent course. Students taking Business Information Management will have the opportunity to learn the skills needed to successfully pass the MOS Associate certification exams in Word, Excel and PowerPoint and possibly the advanced features of MOS Expert in Word and Excel.

NOTES:

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PROGRAMS OF STUDY



MARKETING AND SALES

PROGRAM OF STUDY

The Marketing and Sales Program of Study teaches students how to collect information to determine potential sales of a product or service and/or create a marketing campaign to market or distribute goods and services. Through this program of study, students will learn the skills necessary to understand and apply data on customer demographics, preferences, needs, and buying habits.

INDUSTRY-BASED CERTIFICATION OPPORTUNITIES

Student Social Media Marketing Certification

WORK-BASED LEARNING EXPERIENCES

Industry Guest Speakers and Mentors; Job Shadows; Internships;
Industry and Post Secondary Education Field Trips

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

DECA; National Technical Honor Society (NTHS)

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	10-YEAR GROWTH
Retail Salespersons	\$28,356	56,132	15%
Market Research Analysts	\$60,926	5,688	35%
Sales Managers	\$123,729	3,368	21%

Data Source: TexasWages, TexasWorkforce Commission. March 2024



RECOMMENDED COURSE SEQUENCE

- 1 LEVEL** Principles of Business, Marketing and Finance
- 2 LEVEL** Marketing
- 3 LEVEL** Advertising & Social Media Marketing
- 4 LEVEL** Practicum in Marketing

NOTE: See reverse for endorsement requirements. Course descriptions and details can be found in the course catalog.

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ENDORSEMENT REQUIREMENTS

A student may earn a Business and Industry endorsement by completing the required credits from the CTE Program of Study list below.
**Course has a required prerequisite*



4 CREDITS REQUIRED

- Required Course:**
- *Advertising & Social Media Marketing (1)
- Choose additional credits from the following:**
- Principles of Business, Marketing and Finance (1)
 - Marketing (1)
 - Entrepreneurship I (1)
 - *Practicum in Marketing (2)
 - *Career Preparation for Programs of Study (3)

INDUSTRY-BASED CERTIFICATION

The Student Social Media Marketing Certification will show that students are fully capable and skilled in applying social media marketing techniques. You will be tested on best practices of managing social media campaigns, implementing data analyzation techniques, making data-driven decisions relative to revenues and profits, and making report-based strategy adjustments.

NOTES:

DISCOVER MORE:
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PROGRAMS OF STUDY

REAL ESTATE

PROGRAM OF STUDY

The Real Estate program of study allows students to explore the constantly changing world of Real Estate sales, investment, development, law, and ethics. Students will work towards earning their Real Estate Salesperson license for the state of Texas and getting the Real Estate endorsement for graduation. Throughout this program, students will have the opportunity to connect and collaborate with industry leaders in the area to further enrich their knowledge and understanding of the real estate profession.

INDUSTRY-BASED CERTIFICATION OPPORTUNITIES

Real Estate Sales Agent License Preperation

WORK-BASED LEARNING EXPERIENCES

Industry Guest Speakers and Mentors; Job Shadows; Internships; Industry and Post Secondary Education Site Visits/Field Trips.

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

DECA

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	10-YEAR GROWTH
Real Estate Sales Agents	\$50,746	5,058	15%
Property, Real Estate, and Community Association Managers	\$59,788	3,457	15%
Title Examiners, Abstractors, and Searchers	\$58,593	819	12%

Data Source: TexasWages, TexasWorkforce Commission. March 2024



RECOMMENDED COURSE SEQUENCE

- 1 LEVEL** Principles of Business, Marketing, and Finance
- 2 LEVEL** Marketing; Entrepreneurship I
- 3 LEVEL** Business Law
- 4 LEVEL** Practicum in Business Management: Real Estate

NOTE: See reverse for endorsement requirements. Course descriptions and details can be found in the course catalog.

GET A GLIMPSE:
SCAN THE QR CODE TO
WATCH AND LEARN ABOUT
THIS PROGRAM OF STUDY



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.

Continuous Public Notification of Non-Discrimination

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ENDORSEMENT REQUIREMENTS

A student may earn a Business and Industry endorsement by completing the required credits from the CTE Program of Study list below.
**Course has a required prerequisite*



4 CREDITS REQUIRED

Required Course:

- *Practicum in Business Management: Real Estate (2)

Choose additional credits from the following:

- Principles of Business, Marketing and Finance (1)
- Marketing (1)
- Entrepreneurship I (1)
- Business Law (1)
- Interior Design I (1)
- Career Preparation for Programs of Study (3)

INDUSTRY-BASED CERTIFICATION

To become a Texas Real Estate Sales Agent through the Texas Real Estate Commission (TREC), applicants must complete six required courses (180 hours) of real estate education, submit an application, and pass the state licensing exam. Applicants must be at least 18 years old, meet the honesty and integrity requirements, and have a sponsoring broker before being licensed. The application process includes background checks and fingerprinting. Once licensed, agents must complete continuing education requirements to maintain their license.

NOTES:

DISCOVER MORE:
SCAN THE QR CODE
TO EXPLORE ALL CTE
PROGRAMS OF STUDY





EDUCATION AND TRAINING

Teaching & Training

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.



EDUCATION AND TRAINING

Recommended Course Sequences

*COURSE HAS A REQUIRED PREREQUISITE
▲ INDUSTRY-BASED CERTIFICATION (IBC)
[] GRADE LEVEL(S)
() CREDITS



TEACHING AND TRAINING

PROGRAM OF STUDY

The Teaching and Training Program of Study (Ready, Set, Teach) prepares students for careers related to teaching, coaching, or other fields in education such as counseling, speech pathology, special education, and instructional aides. By working with students, planning and teaching lessons, and assisting with other teacher responsibilities, students will gain real world experience in the classroom. Students will be provided observation & internship opportunities within local schools. Participants of the Teaching and Training (Ready, Set, Teach) program are guaranteed a job interview with LISD upon completing a teacher certification program.

INDUSTRY-BASED CERTIFICATION OPPORTUNITIES

Education Fundamentals Pre-PAC AAFCS
(American Association of Family and Consumer Sciences);
Educational Aid I

WORK-BASED LEARNING EXPERIENCES

Industry Guest Speakers; Industry Site Visits/Field Trips; Industry
Mentors; Community Project Opportunities;
On-Site Classroom Observations; Internships/Externships

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

Family, Career and Community Leaders of America (FCCLA);
Texas Association of Future Educators (TAFE);
National Technical Honor Society (NTHS)

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	10-YEAR GROWTH
Teaching Assistants, Except Postsecondary	\$28,066	10,000	15%
Secondary School Teachers, Except Special Education and CTE	\$61,035	8,288	14%
Education Administrators, Kindergarten through Secondary	\$81,976	2,676	14%



RECOMMENDED COURSE SEQUENCE

- 1 LEVEL** Principles of Education
- 2 LEVEL** Instructional Practice; Human Growth and Development
- 3 LEVEL** Practicum in Education & Training I
- 4 LEVEL** Practicum in Education and Training II

NOTE: See reverse for endorsement requirements. Course descriptions and details can be found in the course catalog.

GET A GLIMPSE:
SCAN THE QR CODE TO
WATCH AND LEARN ABOUT
THIS PROGRAM OF STUDY



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ENDORSEMENT REQUIREMENTS

A student may earn a Public Service endorsement by completing the required credits from the CTE Program of Study list below.
**Course has a required prerequisite*



4 CREDITS REQUIRED

Required Course:

- *Instructional Practice (2)

Choose at least one additional credit from the following:

- Principles of Education and Training (1)
- Human Growth and Development (1)
- Principles of Human Services (1)
- *Practicum in Education and Training I (2)
- *Practicum in Education and Training II (2)
- *Career Preparation for Programs of Study (3)
- *CTE Project-Based Capstone (1)

INDUSTRY-BASED CERTIFICATION

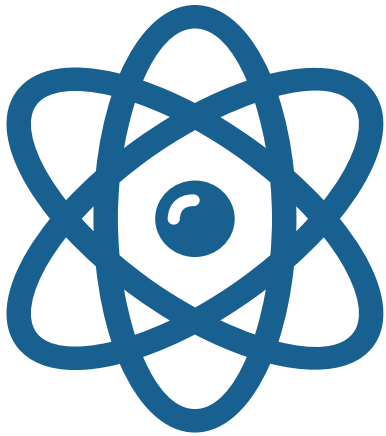
The Educational Aide I certification measures the following domains or competencies: planning, managing, and providing education and training services and related learning support services; exploring and understanding needed preparation for Education and Training careers; and participating in a field based internship that provides background knowledge of child and adolescent development as well as principles of effective teaching and training practices. A student who completes the Educational Aide I certification could work in a variety of occupations within an educational setting. Some of the work activities could include: Tutoring and assisting children individually or in small groups to help them master assignments and to reinforce learning concepts; supervising students; teaching social skills to students; providing extra assistance to students with special needs; observing students' performance, and recording relevant data to assess progress and presenting subject matter to students under the direction and guidance of teachers, using lectures, discussions, or supervised role-playing methods.

Educational Fundamentals Pre-PAC (AAFCS) is an industry recognized certification driven by industry standards that validates achievement of competencies related to fundamentals of education and training.

NOTES:

DISCOVER MORE:
SCAN THE QR CODE
TO EXPLORE ALL CTE
PROGRAMS OF STUDY

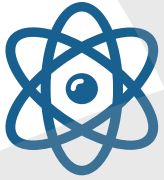




ENGINEERING

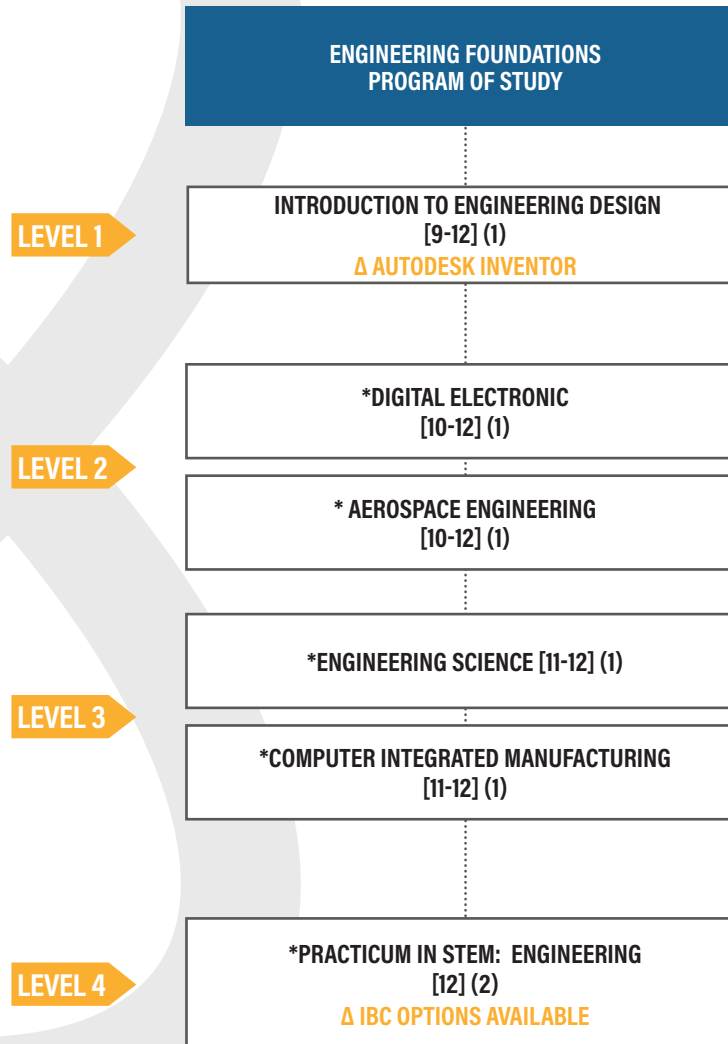
Engineering Foundations (PLTW)

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.



ENGINEERING

Recommended Course Sequences



ENGINEERING

SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS (STEM)

ENGINEERING FOUNDATIONS (PLTW)

PROGRAM OF STUDY

The Engineering Foundations Program of Study focuses on the application of science, mathematical methods, and design thinking to solve real-world problems. Areas of focus include technical communication, 3D CAD modeling, technical drawings and schematics, automation, mechanisms, structural analysis and design, material testing, circuit design, combinational and sequential logic, physics of flight, orbital mechanics, technical specifications, documentation and presentations.

INDUSTRY-BASED CERTIFICATION OPPORTUNITIES

Autodesk (Certified User) Inventor for Mechanical Design

WORK-BASED LEARNING EXPERIENCES

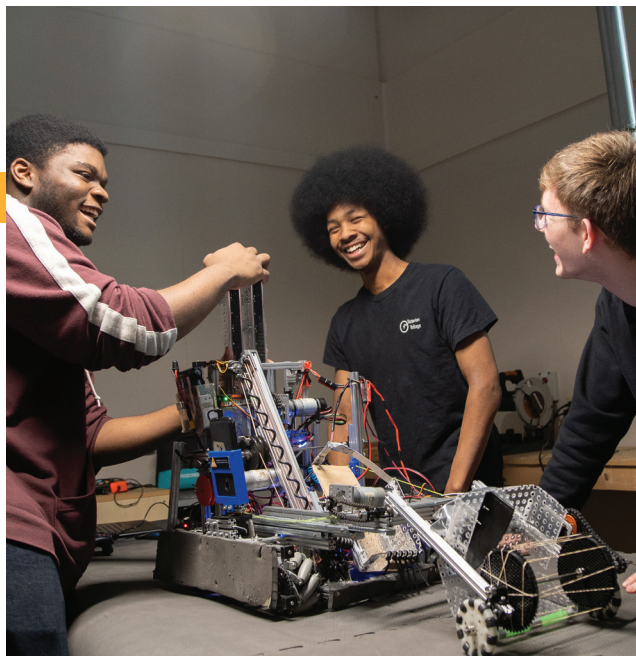
Guest Speakers; Campus Service;
Project-based Learning

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

FIRST Robotics; SkillsUSA; BEST; TSA; NTHS;
CyberPatriots; Women in STEM

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	10-YEAR GROWTH
Civil Engineering Technologists and Technicians	\$61,138	765	11%
Aerospace Engineers	\$115,694	483	18%
Mechanical Engineers	\$99,937	1,755	19%

Data Source: TexasWages, TexasWorkforce Commission. March 2024



RECOMMENDED COURSE SEQUENCE

- 1 LEVEL** Introduction to Engineering Design
- 2 LEVEL** Aerospace Engineering; Digital Electronics
- 3 LEVEL** Engineering Science; Computer Integrated Manufacturing
- 4 LEVEL** Practicum in STEM: Engineering

NOTE: See reverse for endorsement requirements. Course descriptions and details can be found in the course catalog.

GET A GLIMPSE:
SCAN THE QR CODE TO
WATCH AND LEARN ABOUT
THIS PROGRAM OF STUDY



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.

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ENGINEERING FOUNDATIONS [PLTW]

SCIENCE, TECHNOLOGY, ENGINEERING
AND MATHEMATICS (STEM)

ENDORSEMENT REQUIREMENTS

A student may earn a STEM endorsement by completing Algebra II, Chemistry and Physics in addition to the required credits from at least one Area of Concentration or CTE Program of Study listed below.
**Course has a required prerequisite*



7 CREDITS REQUIRED

Required Courses:

- Algebra II (1)
- Chemistry (1)
- Physics (1)

Choose at least one additional credit from the following:

- *Aerospace Engineering (1)
- *Digital Electronics (1)
- *Engineering Science (1)
- *Computer Integrated Manufacturing (1)

Choose additional credit, if needed, from the following:

- Principles of Applied Engineering (1)
- Introduction to Engineering Design (1)
- *Practicum in STEM: Engineering (2)
- *Career Preparation for Programs of Study (3)
- *CTE Project-Based Capstone (1)
- *Scientific Research and Design (1)

NOTE: Students who do not complete Algebra II, Chemistry and Physics, but earn four credits in the Engineering Foundations Program of Study, are eligible to earn a Business and Industry Endorsement.

INDUSTRY-BASED CERTIFICATION

The Autodesk (Certified User) Inventor for Mechanical Design demonstrates entry-level knowledge that includes creating, modifying, formatting, and sharing 2D sketch, creating parts, viewing, and animating assemblies, creating presentations and drawings, etc.

DISCOVER MORE:
SCAN THE QR CODE
TO EXPLORE ALL CTE
PROGRAMS OF STUDY



NOTES:



HEALTH SCIENCE

Exercise Science, Wellness and Restoration

Diagnostic and Therapeutic Services: Healthcare

Biomedical Science (PLTW)

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



HEALTH SCIENCE

Recommended Course Sequences

*COURSE HAS A REQUIRED PREREQUISITE

Δ INDUSTRY-BASED CERTIFICATION (IBC)

[] GRADE LEVEL(S)

() CREDITS

◇ SPECIALIZED PROGRAM

LEVEL 1

BIOMEDICAL SCIENCE
PROGRAM OF STUDY

DIAGNOSTIC AND THERAPEUTIC
SERVICES: HEALTHCARE
PROGRAM OF STUDY ◇(CPHS, LHS)

EXERCISE SCIENCE, WELLNESS
AND RESTORATION
PROGRAM OF STUDY

PRINCIPLES OF
BIOMEDICAL SCIENCE
[9-11] (1)

PRINCIPLES OF HEALTH SCIENCE
[9-11] (1)

*HUMAN BODY SYSTEMS
[10-12] (1)

LIFETIME NUTRITION, WELLNESS &
INTERPERSONAL STUDIES
[10-12] (1)

KINESIOLOGY I
[11-12] (1)

LEVEL 2

MEDICAL TERMINOLOGY
[10-12] (1)

*MEDICAL INTERVENTIONS
[11-12] (1)
Δ BACE

◇HEALTH SCIENCE THEORY
[11-12] (1)
Δ CPR AND FIRST AID

*KINESIOLOGY II
[12] (1)

Δ PREPAC NUTRITION, FOOD, AND WELLNESS

LEVEL 3

*MEDICAL MICROBIOLOGY
[11-12] (1)

*ANATOMY AND PHYSIOLOGY
[11-12] (1)

LEVEL 4

*SCIENTIFIC RESEARCH AND DESIGN:
BIOMEDICAL SCIENCE
[12] (1)
Δ IBC OPTIONS AVAILABLE

*◇PRACTICUM IN HEALTH SCIENCE: MEDICAL ASSISTANT [12] (2)
Δ CERTIFIED CLINICAL MEDICAL ASSISTANT (CCMA)
Δ OSHA-10 HEALTHCARE

PRACTICUM IN ENTREPRENEURSHIP:
EXERCISE SCIENCE [12] (1)

*◇PRACTICUM IN HEALTH SCIENCE: PHARMACY TECHNICIAN [12] (2)
Δ PHARMACY TECHNICIAN
Δ OSHA-10 HEALTHCARE

*CTE PROJECT-BASED CAPSTONE
[12] (1)

PUBLIC SERVICE

Students who complete the Diagnostic and Therapeutic Services or Exercise Science, Wellness and Restoration or Biomedical Science Program of Study requirements are eligible to earn a STEM endorsement by also completing Algebra II, Chemistry, and Physics.

Note: Refer to course catalog for additional course sequence options, course descriptions General Medical Science Program of Study Option, and endorsement requirements. Dual credit courses may be substituted for requirements in appropriate areas; check with your counselor on available options. Specialized programs located on specific high school campuses are open to all LISD students; check with your campus College and Career Transition Coordinator for details.

HEALTH SCIENCE

SCIENCE, TECHNOLOGY, ENGINEERING, AND MATH

BIOMEDICAL SCIENCE (PLTW)

PROGRAM OF STUDY

The Biomedical Science Program of Study focuses on the study of biology and medicine in order to introduce students to the knowledge and skills necessary to be successful in the healthcare field, such as researching and diagnosing diseases, pre-existing conditions, or other determinants of health. Students may also practice patient care and communication.

INDUSTRY-BASED CERTIFICATION OPPORTUNITIES

Biotechnician Assistant Certification (BACE)

WORK-BASED LEARNING EXPERIENCES

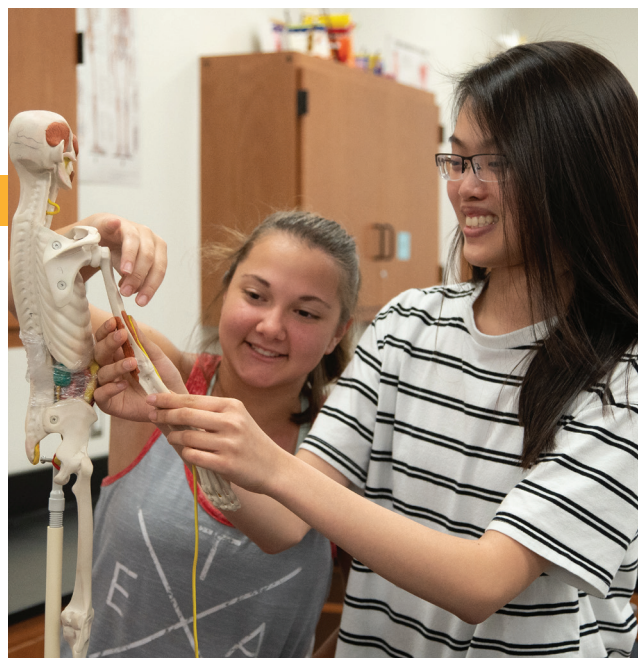
Industry Guest Speakers/Panels; Medical Facility and Lab Tours; Industry Observations/Internships/Externships.

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

Health Occupations Students of America (HOSA); iGEM; National Technical Honor Society (NTHS)

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	10-YEAR GROWTH
Medical Equipment Preparers	\$38,827	519	15%
Forensic Science Technicians	\$56,971	249	22%
Biological Technicians	\$45,787	879	14%

Data Source: TexasWages, TexasWorkforce Commission, March 2024



RECOMMENDED COURSE SEQUENCE

- 1 LEVEL** Principles of Biomedical Science
- 2 LEVEL** Human Body Systems; Medical Terminology
- 3 LEVEL** Medical Interventions; Medical Microbiology; Anatomy and Physiology
- 4 LEVEL** Scientific Research and Design: Biomedical Science

NOTE: See reverse for endorsement requirements. Course descriptions and details can be found in the course catalog.

GET A GLIMPSE:
SCAN THE QR CODE TO
WATCH AND LEARN ABOUT
THIS PROGRAM OF STUDY



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

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BIOMEDICAL SCIENCE (PLTW)

SCIENCE, TECHNOLOGY, ENGINEERING
AND MATHEMATICS (STEM)

ENDORSEMENT REQUIREMENTS

A student may earn a STEM endorsement by completing Algebra II, Chemistry and Physics in addition to the required credits from at least one Area of Concentration or CTE Program of Study listed below.

**Course has a required prerequisite*



7 CREDITS REQUIRED

Required Courses:

- Algebra II (1)
- Chemistry (1)
- Physics (1)
- *Medical Interventions (1)

Choose additional credits from the following:

- Principles of Biomedical Science (1)
- *Human Body Systems (1)
- *Scientific Research and Design: Biomedical Science (1)
- *Practicum in STEM: Biomedical Science (2)
- *Career Preparation for Programs of Study (3)
- *Anatomy and Physiology (1)
- *Medical Microbiology (1)
- Principles of Health Science (1)
- Medical Terminology (1)
- *CTE Project-Based Capstone (1)

NOTE: Students who do not complete Algebra II, Chemistry and Physics, but earn four credits in the Biomedical Science Program of Study, are eligible to earn a Public Service endorsement.

INDUSTRY-BASED CERTIFICATION

The Biotechnician Assistant Credentialing Exam (BACE) is an industry-recognized exam designed to assess core skills and knowledge sets identified by industry, and represented within the academic and performance standards of Biotechnology programs. The exam was originally vetted by the state of Florida's industry organization, BioFlorida, which represents more than 3,000 companies and research organizations in the biotechnology, pharmaceuticals, medical devices, and bioagriculture sectors. Since its creation, BACE has been assessed by national and international companies as other states adopt the exam.

DISCOVER MORE:
SCAN THE QR CODE
TO EXPLORE ALL CTE
PROGRAMS OF STUDY



NOTES:

EXERCISE SCIENCE, WELLNESS & RESTORATION

PROGRAM OF STUDY

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

INDUSTRY-BASED CERTIFICATION OPPORTUNITIES

Pre-PAC Nutrition, Food and Wellness

WORK-BASED LEARNING EXPERIENCES

Industry Guest Speakers/Demonstrations; Site-Visits and Field Trips; Simulated Trainer Experiences; Job Shadowing; Internships

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

Health Occupations Students of America (HOSA); National Technical Honor Society (NTHS)

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	10-YEAR GROWTH
Exercise Trainers and Group Fitness Instructors	\$44,916	5,022	41%
Physical Therapist Assistants	\$74,866	1,218	44%
Athletic Trainers	\$54,447	295	13%

Data Source: TexasWages, TexasWorkforce Commission, March 2024



RECOMMENDED COURSE SEQUENCE

- 1 LEVEL** Principles of Health Science
- 2 LEVEL** Kinesiology I; Lifetime, Nutrition, Wellness & Interpersonal Studies; Medical Terminology
- 3 LEVEL** Kinesiology II; Anatomy and Physiology
- 4 LEVEL** Practicum in Entrepreneurship: Exercise Science; CTE Project-Based Capstone

NOTE: See reverse for endorsement requirements. Course descriptions and details can be found in the course catalog.

GET A GLIMPSE:
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EXERCISE SCIENCE, WELLNESS AND RESTORATION

PUBLIC SERVICE

ENDORSEMENT REQUIREMENTS

A student may earn a Public Service endorsement by completing the required credits from the CTE Program of Study list below.

**Course has a required prerequisite*



4 CREDITS REQUIRED

Required Course:

- *Kinesiology II (1)

Choose additional credits from the following:

- Lifetime, Nutrition, Wellness & Interpersonal Studies (1)
- Kinesiology I (1)
- Principles of Health Science (1)
- *Health Science Theory (1)
- *Practicum in Entrepreneurship: Exercise Science (2)
- *Anatomy and Physiology (1)
- Medical Terminology (1)
- *Career Preparation for Programs of Study (3)
- *CTE Project-Based Capstone (1)
- Entrepreneurship I (1)

INDUSTRY-BASED CERTIFICATION

The Nutrition, Food, and Wellness credential validates the essential knowledge, skills, and abilities to prepare individuals for careers associated with nutrition, dietetics, food service, and health and wellness.

NOTES:

DISCOVER MORE:
SCAN THE QR CODE
TO EXPLORE ALL CTE
PROGRAMS OF STUDY



DIAGNOSTIC AND THERAPEUTIC SERVICES: HEALTHCARE

PROGRAM OF STUDY

The Diagnostic & Therapeutic Services: Healthcare Program of Study introduces students to occupations and educational opportunities related to diagnosing and treating acute, episodic, or chronic illness independently or as part of a healthcare team.

INDUSTRY-BASED CERTIFICATION OPPORTUNITIES

CPR and First Aid; OSHA 10 Healthcare;
Certified Clinical Medical Assistant; Pharmacy Technician

WORK-BASED LEARNING EXPERIENCES

Industry Guest Speakers / Panels; Medical Facility and Lab Tours;
Industry Observations; Blood Drives; Community Service; Hospital
Clinical Rotations; Internships / Externships

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

Health Occupations Students of America (HOSA); National
Technical Honor Society (NTHS)

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	10-YEAR GROWTH
Medical Assistants	\$36,834	11,638	29%
Dental Hygienists	\$79,663	1,352	32%
Physical Assistants	\$127,332	974	41%

Data Source: TexasWages, TexasWorkforce Commission, March 2024



RECOMMENDED COURSE SEQUENCE

- 1 LEVEL** Principles of Health Science
- 2 LEVEL** Medical Terminology
- 3 LEVEL** Health Science Theory;
Anatomy and Physiology
Medical Microbiology
- 4 LEVEL** Practicum in Health Science: Medical Assistant; Practicum in Health Science: Pharmacy Technician

NOTE: See reverse for endorsement requirements. Course descriptions and details can be found in the course catalog.

GET A GLIMPSE:
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THIS PROGRAM OF STUDY



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DIAGNOSTIC AND THERAPEUTIC SERVICES: HEALTHCARE

PUBLIC SERVICE

ENDORSEMENT REQUIREMENTS

A student may earn a Public Service endorsement by completing the required credits from the CTE Program of Study list below.

**Course has a required prerequisite*



4 CREDITS REQUIRED

Required Course:

- Health Science Theory (1)

Choose additional credits from the following:

- Principles of Health Science (1)
- *Practicum in Health Science: Medical Assistant (2)
- *Practicum in Health Science: Pharmacy Technician (2)
- Medical Terminology (1)
- *Anatomy and Physiology (1)
- *Medical Microbiology (1)
- *Career Preparation for Programs of Study (3)

NOTE: Students who complete the Diagnostic and Therapeutic Services Program of Study requirements are eligible to earn a STEM endorsement by also completing Algebra II, Chemistry and Physics.

INDUSTRY-BASED CERTIFICATION

CPR: This hands-on skills training prepares you to respond to breathing and cardiac emergencies. It also teaches the skills and knowledge needed to provide care for victims of sudden cardiac arrest through the safe use of an automated external defibrillator (AED). Valid for 2 years.

The First Aid certification teaches students to recognize and care for a variety of first aid emergencies such as burns, cuts, scrapes, sudden illnesses, head, neck, back injuries, heat and cold emergencies and how to respond to breathing and cardiac emergencies for victims about 12 years and older. Successful students will receive a certificate for Adult First Aid/CPR/AED valid for two years.

The OSHA 10-Hour General Industry (Healthcare) training course provides training for entry-level workers and employers on the recognition, avoidance, abatement, and prevention of safety and health hazards in workplaces in healthcare industry. The program also provides information regarding workers' rights, employer responsibilities, and how to file a complaint. Through this training, OSHA helps to ensure that workers are more knowledgeable about workplace hazards and their rights. Students who successfully complete the CareerSafe® OSHA 10-Hour General Industry (Healthcare) course receive an OSHA 10-Hour General Industry wallet card from the OSHA Training Institute (OTI).

Certified Medical Assistant (CMA): A medical assisting exam assesses a student's knowledge of therapeutic modalities, insurance filing procedures, medical terminology, clinical pharmacology, body systems, vital signs and measurements, human relations, lab procedures, performing and assessing an ECG, conducting patient education, financial book keeping, administrative duties, and medical law and ethics. Exam competencies may include clinical patient care, general patient care, administrative assisting, patient care and education, and infection control.

Certified Pharmacy Technician (CPhT)- The Exam for the Certification of Pharmacy Technicians assesses a student's knowledge of the role, scope of practice, and general duties of a pharmacy technician, including laws and regulations, controlled substances, drugs and drug therapy, the dispensing process, safety, and quality assurance.



HOSPITALITY & TOURISM

Culinary Arts

Lodging and Resort Management

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



HOSPITALITY AND TOURISM

Recommended Course Sequences

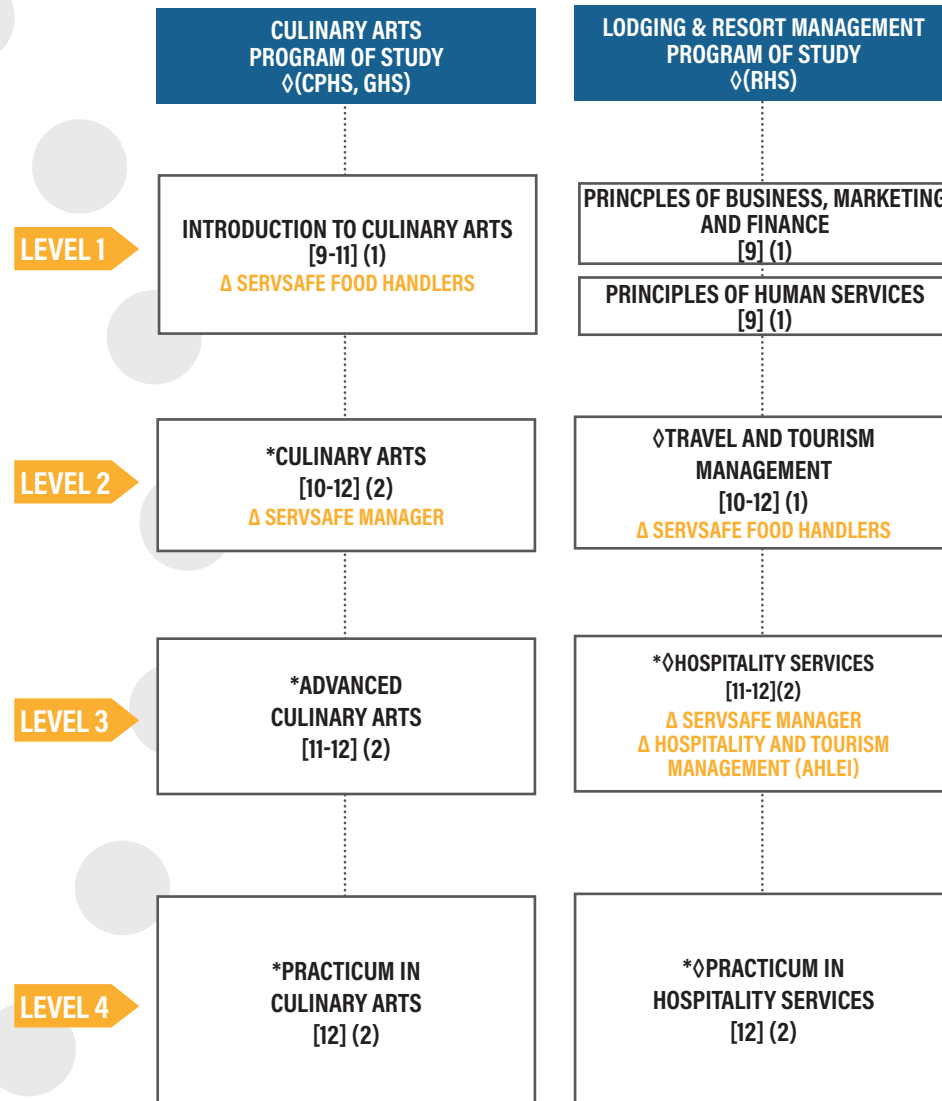
*COURSE HAS A REQUIRED PREREQUISITE

Δ INDUSTRY-BASED CERTIFICATION (IBC)

[] GRADE LEVEL(S)

() CREDITS

◇ SPECIALIZED PROGRAM



BUSINESS AND INDUSTRY

Note: Refer to course catalog for additional course sequence options, course descriptions and endorsement requirements. Dual credit courses may be substituted for requirements in appropriate areas; check with your counselor on available options. Specialized programs located on specific high school campuses are open to all LISD students; check with your campus College and Career Transition Coordinator for details.

CULINARY ARTS

PROGRAM OF STUDY

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

INDUSTRY-BASED CERTIFICATION OPPORTUNITIES

ServSafe Food Handler; ServSafe Manager

WORK-BASED LEARNING EXPERIENCES

Industry Guest Speakers; Industry Site Visits/Field Trips; Observations; Industry Mentors and Partnerships; In-House Dining and Catering Services; Internships/Externships.

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

Family, Career, and Community Leaders of America (FCCLA); ProStart; National Technical Honor Society (NTHS).

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	10-YEAR GROWTH
Bakers	\$29,466	2,942	26%
Chefs and Head Cooks	\$44,761	950	37%
General and Operations Managers	\$83,220	25,450	23%



RECOMMENDED COURSE SEQUENCE

- 1 LEVEL** Introduction to Culinary Arts (CPHS, GHS)
- 2 LEVEL** Culinary Arts (CPHS, GHS)
- 3 LEVEL** Advanced Culinary Arts (CPHS, GHS)
- 4 LEVEL** Practicum in Culinary Arts (CPHS, GHS)

NOTE: See reverse for endorsement requirements. Course descriptions and details can be found in the course catalog.

GET A GLIMPSE:
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THIS PROGRAM OF STUDY



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

Continuous Public Notification of Non-Discrimination

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CULINARY ARTS

BUSINESS AND INDUSTRY

ENDORSEMENT REQUIREMENTS

A student may earn a Business and Industry endorsement by completing the required credits from the CTE Program of Study list below.

**Course has a required prerequisite*



4 CREDITS REQUIRED

Required Course:

- *Advanced Culinary Arts (2)

Choose additional credits from the following:

- Introduction to Culinary Arts (1)
- *Culinary Arts (2)
- *Practicum in Culinary Arts (2)
- Entrepreneurship I (1)
- *Career Preparation for Programs of Study (3)

INDUSTRY-BASED CERTIFICATION

The ServSafe Food Handler course and exam meet the requirements set forth by the State of Texas. The State requires anyone who is involved in the preparation, storage, or service of food to obtain a Food Handler Card. This certification is a comprehensive solution that delivers consistent food safety training to employees. This ensures the same food safety principles are delivered each and every time.

ServSafe Manager is a food safety program providing high-quality food safety education and training for the restaurant and food service industry. Learn about food borne illness, how to prevent it and how to train employees in food sanitation. The ServSafe Manager exam measures the following content areas: implementing food safety standard operating procedures, ensuring employee hygiene and health, ensuring safe receipt, storage, transportation and disposal of food, ensuring safe preparation, display and service of food and ensuring compliance with regulatory requirements for facilities.

NOTES:

DISCOVER MORE:
SCAN THE QR CODE
TO EXPLORE ALL CTE
PROGRAMS OF STUDY



LODGING AND RESORT MANAGEMENT

PROGRAM OF STUDY

The Lodging and Resort Management Program of Study introduces students to occupations and educational opportunities related to the logistical and operational management of lodging and resorts. This program of study also explores opportunities related to human resources, financial analysis, and marketing.

INDUSTRY-BASED CERTIFICATION OPPORTUNITIES

ServSafe Food Handler's; ServSafe Manager; Certified Hospitality and Tourism Management Professional (HTMP)

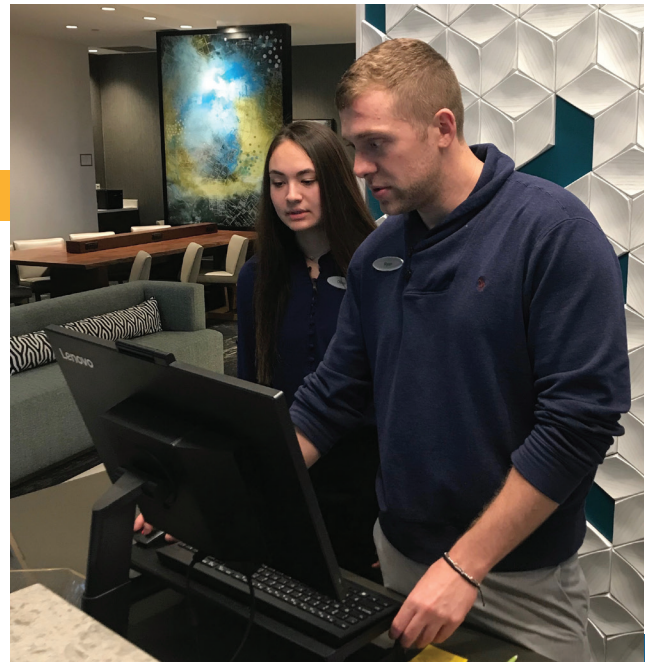
WORK-BASED LEARNING EXPERIENCES

Industry Guest Speakers; Industry Site Visits/Field Trips; On-Site Observations; Industry Partnerships; Internships/Externships.

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

Family, Career and Community Leaders of America (FCCLA); National Technical Honor Society (NTHS)

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	10-YEAR GROWTH
Reservation and Transportation Ticket Agents and Travel Clerks	\$48,000	2,031	17%
Meeting, Convention, and Event Planners	\$49,428	1,070	25%
General Operations Managers	\$83,220	25,450	23%



RECOMMENDED COURSE SEQUENCE

- 1 LEVEL** Principles of Human Services; Principles of Business, Marketing and Finance
- 2 LEVEL** Travel and Tourism Management (RHS)
- 3 LEVEL** Hospitality Services (RHS)
- 4 LEVEL** Practicum in Hospitality Services (RHS)

NOTE: See reverse for endorsement requirements. Course descriptions and details can be found in the course catalog.

GET A GLIMPSE:
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THIS PROGRAM OF STUDY



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

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LODGING AND RESORT MANAGEMENT

BUSINESS AND INDUSTRY

ENDORSEMENT REQUIREMENTS

A student may earn a Business and Industry endorsement by completing the required credits from the CTE Program of Study list below.

**Course has a required prerequisite*



4 CREDITS REQUIRED

Required Course:

- Hospitality Services (2) (RHS)

Choose additional credits from the following:

- Principles of Business, Marketing and Finance (1)
- Travel and Tourism Management (1)
- *Practicum in Hospitality Services (2)
- Business Management (1)
- Entrepreneurship I (1)
- *Career Preparation for Programs of Study (3)

INDUSTRY-BASED CERTIFICATION

The ServSafe Food Handler Certificate verifies basic food safety knowledge and is for individuals in food handler employee-level positions. The certification is nationally recognized through the National Restaurant Association and will benefit students who plan to work in the food industry.

ServSafe Manager is a food safety program providing high-quality food safety education and training for the restaurant and food service industry. Learn about food borne illness, how to prevent it and how to train employees in food sanitation. The ServSafe Manager exam measures the following content areas: implementing food safety standard operating procedures, ensuring employee hygiene and health, ensuring safe receipt, storage, transportation and disposal of food, ensuring safe preparation, display and service of food and ensuring compliance with regulatory requirements for facilities. There are various options for a teacher to become a certified proctor for the ServSafe Manager program. ServSafe training and certifications are offered at a certified testing location in each of the metropolitan areas of Dallas, Houston, San Antonio, or Austin at the local restaurant association. In addition, there are ServSafe classrooms at any AceMart Restaurant Supply as part of a partnership with AceMart, and ESC's may request training services from the Texas Restaurant Association.

The Certified Hospitality and Tourism Management Professional (HTMP) certification recognizes students' knowledge of key hospitality management concepts. To earn the certification, students are expected to complete 100 hours of paid or unpaid work experience in one or more of the following qualifying areas: - Accommodations-hotels, resorts, motels, hostels, vacation rentals, vacation ownership, bed & breakfast properties, recreational vehicles and camping - Food & Beverage-restaurants, full-service, fine dining, quick service, banquet facilities, lounges - Transportation-airlines, cruise lines, rail, car rentals, tour/coach operators, bus lines, taxis - Attractions-theme parks, zoos, national/state/local parks, natural wonders, heritage sites.



HUMAN SERVICES

Cosmetology & Personal Care Services

Family & Community Services

Family & Community Services: PALS

Health & Wellness

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.



HUMAN SERVICES

Recommended Course Sequences

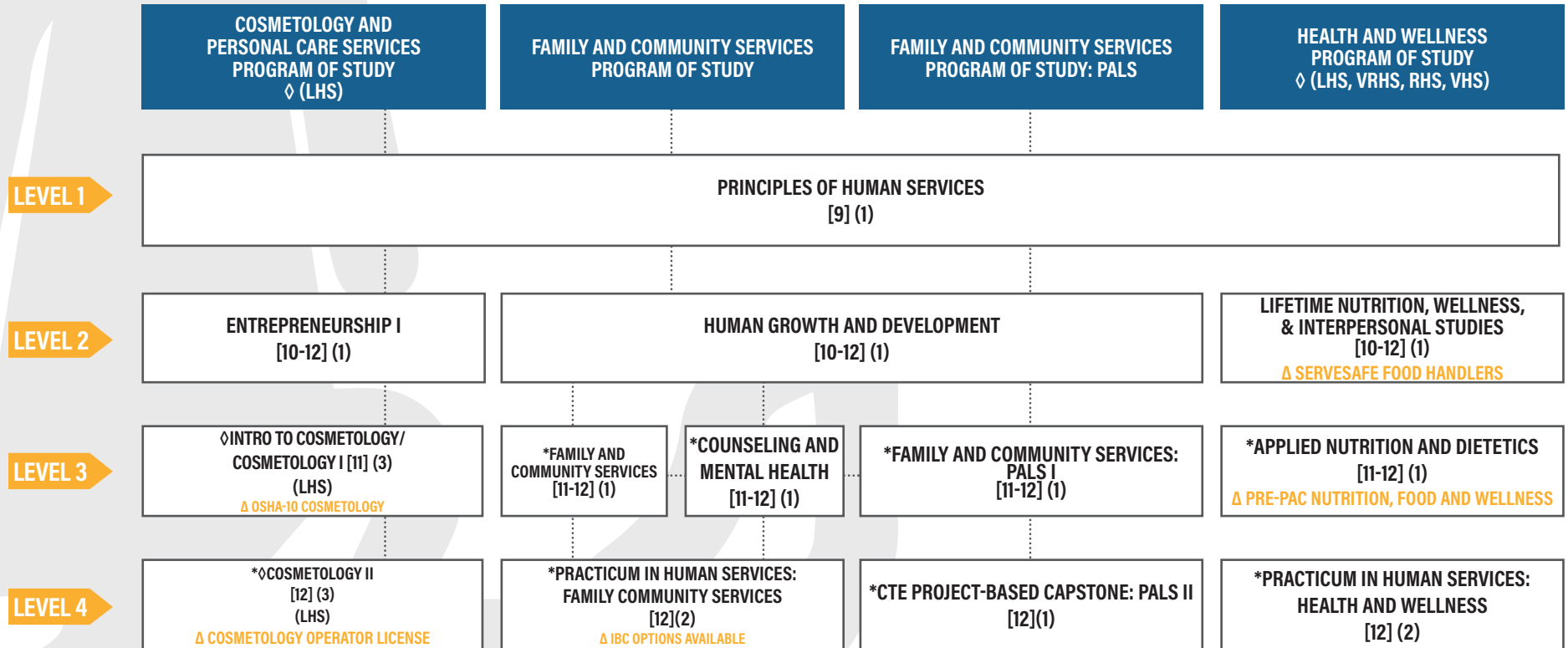
*COURSE HAS A REQUIRED PREREQUISITE

Δ INDUSTRY-BASED CERTIFICATION (IBC)

[] GRADE LEVEL(S)

() CREDITS

◇ SPECIALIZED PROGRAM



PUBLIC SERVICE

Note: The Cosmetology and Personal Care Services Program of Study moved to the Business & Industry endorsement. Refer to course catalog for additional course sequence options, course descriptions, and endorsement requirements. Dual credit courses may be substituted for requirements in appropriate areas; check with your counselor on available options. Specialized programs located on specific high school campuses are open to all LISD students; check with your campus College and Career Transition Coordinator for details.

HUMAN SERVICES

BUSINESS & INDUSTRY

COSMETOLOGY AND PERSONAL CARE SERVICES

PROGRAM OF STUDY

The Cosmetology and Personal Care Services Program of Study introduces students to knowledge and skills related to providing beauty and personal care services. Students coordinate integration of academic, career, and technical knowledge and skills in this laboratory instructional program to provide job-specific training for employment in cosmetology careers. Instruction includes sterilization and sanitation procedures, hair care, nail care, and skin care and meets the TDLR requirements for license upon passing the state examination. Analysis of career opportunities, license requirements, knowledge and skills expectations, and development of workplace skills are included.

INDUSTRY-BASED CERTIFICATION OPPORTUNITIES

Texas Department of Licensing and Regulation Cosmetology Operator License; OSHA 10 Cosmetology

WORK-BASED LEARNING EXPERIENCES

Authentic Lab-Based Instruction; Industry Guest Speakers; Industry Field Trips; Provide Salon Services to Campus and Community; Community Service Events; District Events; Internships/Externships.

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

SkillsUSA; National Technical Honor Society (NTHS)

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	10-YEAR GROWTH
Hairdressers, Hairstylists, and Cosmetologists	\$27,286	8,014	25%
Skincare Specialists	\$35,112	778	38%
First-Line Supervisors of Personal Service Workers	\$36,795	2,253	29%



RECOMMENDED COURSE SEQUENCE

- 1 LEVEL** Principles Human Services
- 2 LEVEL** Entrepreneurship I
- 3 LEVEL** Intro to Cosmetology; Cosmetology I (LHS)
- 4 LEVEL** Cosmetology II (LHS)

NOTE: See reverse for endorsement requirements. Course descriptions and details can be found in the course catalog.

GET A GLIMPSE:
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THIS PROGRAM OF STUDY



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

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COSMETOLOGY AND PERSONAL CARE SERVICES

BUSINESS & INDUSTRY

ENDORSEMENT REQUIREMENTS

A student may earn a Business & Industry endorsement by completing the required credits from the CTE Program of Study list below.

**Course has a required prerequisite*



4 CREDITS REQUIRED

Required Courses:

- Introduction to Cosmetology (1) (LHS)
- Cosmetology I (2) (LHS)

Choose additional credit from the following:

- *Cosmetology II (3) (LHS)
- *Career Preparation for Programs of Study (3)
- Entrepreneurship I (1)

INDUSTRY-BASED CERTIFICATION

The Cosmetology Operator License examination measures the following content: licensing and regulation, infection control, hair and scalp care, and nail and skin care. Embedded in the Cosmetology Operator exam is the ability to earn the Esthetician and Manicurist licenses.

After completing and passing the written examination, candidates will be eligible to take the practical exam. The following sections make up the practical exam: pre-exam set up and disinfection, manicure service, safety criteria, facial service, chemical services, shampoo service, hair shaping service, permanent waving service, curl demonstration and roller placement, blow drying and thermal curling service and end of exam disinfection.

State Requirements for Written Exam: 100 scored items, 10 non-scored items; 130 minutes; 70 and above is passing.

State Requirements for Practical Exam: Written exam must be passed 1st, 1000 hours completed; 3 hours and 20 minutes hands-on exam; 70 and above is passing.

Our OSHA 10-Hour General Industry (Cosmetology) course provides training for entry-level workers on the recognition, avoidance, abatement, and prevention of safety and health hazards in workplaces, as well as information regarding workers' rights and employer responsibilities. Through this training, OSHA helps to ensure that workers have the knowledge they need to stay safe on the job.

Students who successfully complete the CareerSafe OSHA 10-Hour General Industry (Cosmetology) course receive a US Department of Labor OSHA 10-Hour General Industry card—a credential that holds value for a lifetime.

STUDENT SALON SERVICES

Salon Services such as: haircuts, color, perming, mini facials, manicures, & pedicures are offered to the public, LISD employees, and students for a fraction of the cost they are in industry professional salons. Available on B-days from 9 AM to 12 PM depending on service. Call 512-570-1009 or 512-570-1003 or email sheanna.dudley@leanderisd.org for appointments!

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FAMILY & COMMUNITY SERVICES

PROGRAM OF STUDY

The Family & Community Services Program of Study introduces students to knowledge and skills related to social services including nutrition, human growth and development, mental health and wellness, and community services. Students may follow a wide variety of career paths within human services such as social work, working children, families and schools, non-profit organizations and many more.

INDUSTRY-BASED CERTIFICATION OPPORTUNITIES

Certification options available.

WORK-BASED LEARNING EXPERIENCES

Industry Guest Speakers; Site Visits/Field Trips; Industry Mentors; Community Project Opportunities; Internships/Externships; PALS Mentorships

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

Family, Career and Community Leaders of American (FCCLA); National Technical Honor Society (NTHS)

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	10-YEAR GROWTH
Community Health Workers	\$39,520	501	25%
Social and Human Service Assistants	\$38,442	3,298	21%
Child, Family, and School Social Workers	\$49,398	2,342	14%

Data Source: TexasWages, TexasWorkforce Commission, March 2024



RECOMMENDED COURSE SEQUENCE

- 1 LEVEL** Principles of Human Services
- 2 LEVEL** Human Growth and Development
- 3 LEVEL** Counseling and Mental Health; Family and Community Services
- 4 LEVEL** Practicum in Human Services: Family and Community Services

NOTE: See reverse for endorsement requirements. Course descriptions and details can be found in the course catalog.

GET A GLIMPSE:
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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.

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FAMILY & COMMUNITY SERVICES

PUBLIC SERVICE

ENDORSEMENT REQUIREMENTS

A student may earn a Public Service endorsement by completing the required credits from the CTE Program of Study list below.

**Course has a required prerequisite*

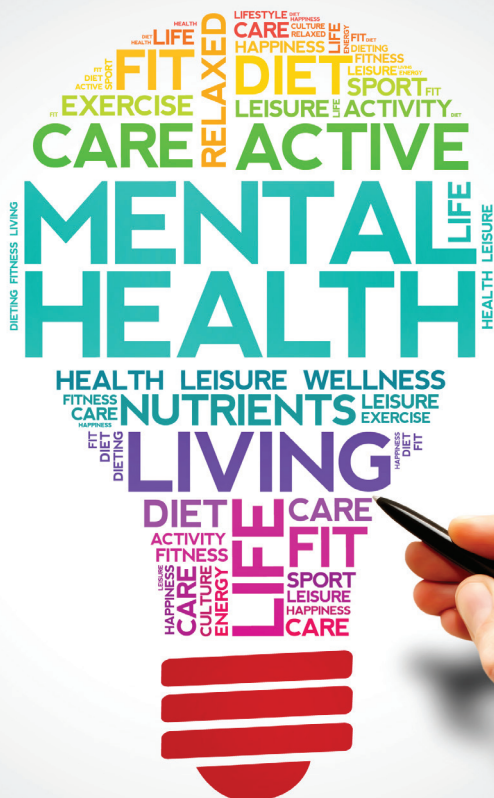
4 CREDITS REQUIRED

Required Courses: Choose at least one course from the following:

- *Counseling and Mental Health (1)
- *Family and Community Services (1)

Choose additional credits from the following:

- Principles of Human Services (1)
- Human Growth and Development (1)
- *Practicum in Human Services: Family and Community Services (2)
- Lifetime, Nutrition, Wellness & Interpersonal Studies (1)
- *Career Preparation for Program of Study (3)
- *CTE Project-Based Capstone (1)
- Entrepreneurship I (1)



NOTES:

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PROGRAMS OF STUDY



FAMILY & COMMUNITY SERVICES: PALS

In PALS (Peer Assistance and Leadership) , students will learn leadership skills such as: goal-setting, communication, peer listening, conflict resolution, group dynamics, and project planning. Students will use these skills in combination with a spirit to serve others to provide programs for their peers that increase motivation, self-esteem, and student involvement. PALS will also seek out opportunities to help serve in the community. Class time will be spent developing leadership skills, serving our peers on our own campus, and mentoring younger students at our feeder schools.

STUDENT CERTIFICATION OPPORTUNITIES

- Certification on Recognizing and Reporting Child Abuse through Williamson County Child Advocacy Center or other certified personnel.
- Certification through the nationally-recognized PAL Program by completing training on home campuses.

SERVICE-BASED LEARNING EXPERIENCES

- Offers one-on-one mentorship to all feeder school campuses in the district.
- Serves as a model on their home campus through peer mentorship and assisting other organizations. (Varies by campus)
- Serves at various community service opportunities year round.



STUDENT ENROLLMENT

To be a part of the PALS program, students must go through a student enrollment form and interview process. This will take place during the Spring semester prior to program enrollment.

RECOMMENDED COURSE SEQUENCE

- 1 LEVEL** Principles of Human Services
- 2 LEVEL** Human Growth and Development
- 3 LEVEL** Family and Community Services: PALS I
- 4 LEVEL** CTE Project-Based Capstone: PALS II

NOTE: See reverse for endorsement requirements. Course descriptions and details can be found in the course catalog.

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FAMILY & COMMUNITY SERVICES: PALS

ENDORSEMENT REQUIREMENTS

A student may earn a Public Service endorsement by completing the required credits from the CTE Program of Study list below.
**Course has a required prerequisite*



4 CREDITS REQUIRED

Required Course:

- *Family and Community Services: PALS (1)

Choose additional credits from the following:

- Principles of Human Services (1)
- Human Growth and Development (1)
- *Counseling and Mental Health (1)
- *CTE Project-Based Capstone: PALS II (1)
- Lifetime, Nutrition, Wellness & Interpersonal Studies (1)
- *Career Preparation for Program of Study (3)
- Entrepreneurship I (1)

NOTES:

DISCOVER MORE:
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PROGRAMS OF STUDY



HEALTH AND WELLNESS

PROGRAM OF STUDY

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

INDUSTRY-BASED CERTIFICATION OPPORTUNITIES

ServSafe Food Handlers; Pre-PAC Nutrition, Food and Wellness

WORK-BASED LEARNING EXPERIENCES

Industry Guest Speakers; Site Visits/Field Trips;
Industry Mentors; Community Project Opportunities;
Internships/Externships.

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

Family, Career and Community Leaders of American (FCCLA);
National Technical Honor Society (NTHS)

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	10-YEAR GROWTH
Community Health Workers	\$39,520	501	25%
Dietetic Technician	\$28,919	160	18%
Dietitians and Nutritionists	\$63,687	475	21%

Data Source: TexasWages, TexasWorkforce Commission, March 2024



RECOMMENDED COURSE SEQUENCE

- 1 LEVEL** Principles of Human Services
- 2 LEVEL** Lifetime Nutrition, Wellness & Interpersonal Studies (LHS, VRHS, RHS, VHS)
- 3 LEVEL** Applied Nutrition and Dietetics (LHS, VRHS, RHS, VHS)
- 4 LEVEL** Practicum in Human Services: Health and Wellness (LHS, VRHS, RHS, VHS)

NOTE: See reverse for endorsement requirements. Course descriptions and details can be found in the course catalog.

GET A GLIMPSE:
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ENDORSEMENT REQUIREMENTS

A student may earn a Public Service endorsement by completing the required credits from the CTE Program of Study list below.

**Course has a required prerequisite*



4 CREDITS REQUIRED

Required Course:

- *Applied Nutrition and Dietetics (1)

Choose additional credits from the following:

- Principles of Human Services (1)
- Lifetime Nutrition, Wellness & Interpersonal Studies (1)
- *Practicum in Human Services: Health and Wellness (2)
- Human Growth and Development (1)
- *Family and Community Services (1)
- *Counseling and Mental Health (1)
- *Career Preparation for Program of Study (3)
- Entrepreneurship I (1)

NOTES:

INDUSTRY-BASED CERTIFICATION

The Nutrition, Food, and Wellness credential validates the essential knowledge, skills, and abilities to prepare individuals for careers associated with nutrition, dietetics, food service, and health and wellness.

The ServSafe Food Handler Certificate verifies basic food safety knowledge and is for individuals in food handler employee-level positions. The certification is nationally recognized through the National Restaurant Association and will benefit students who plan to work in the food industry.

DISCOVER MORE:
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PROGRAMS OF STUDY





INFORMATION TECHNOLOGY

Cybersecurity

Programming and Software Development:

Computer Science Studies

Programming and Software Development:

Mobile App Development

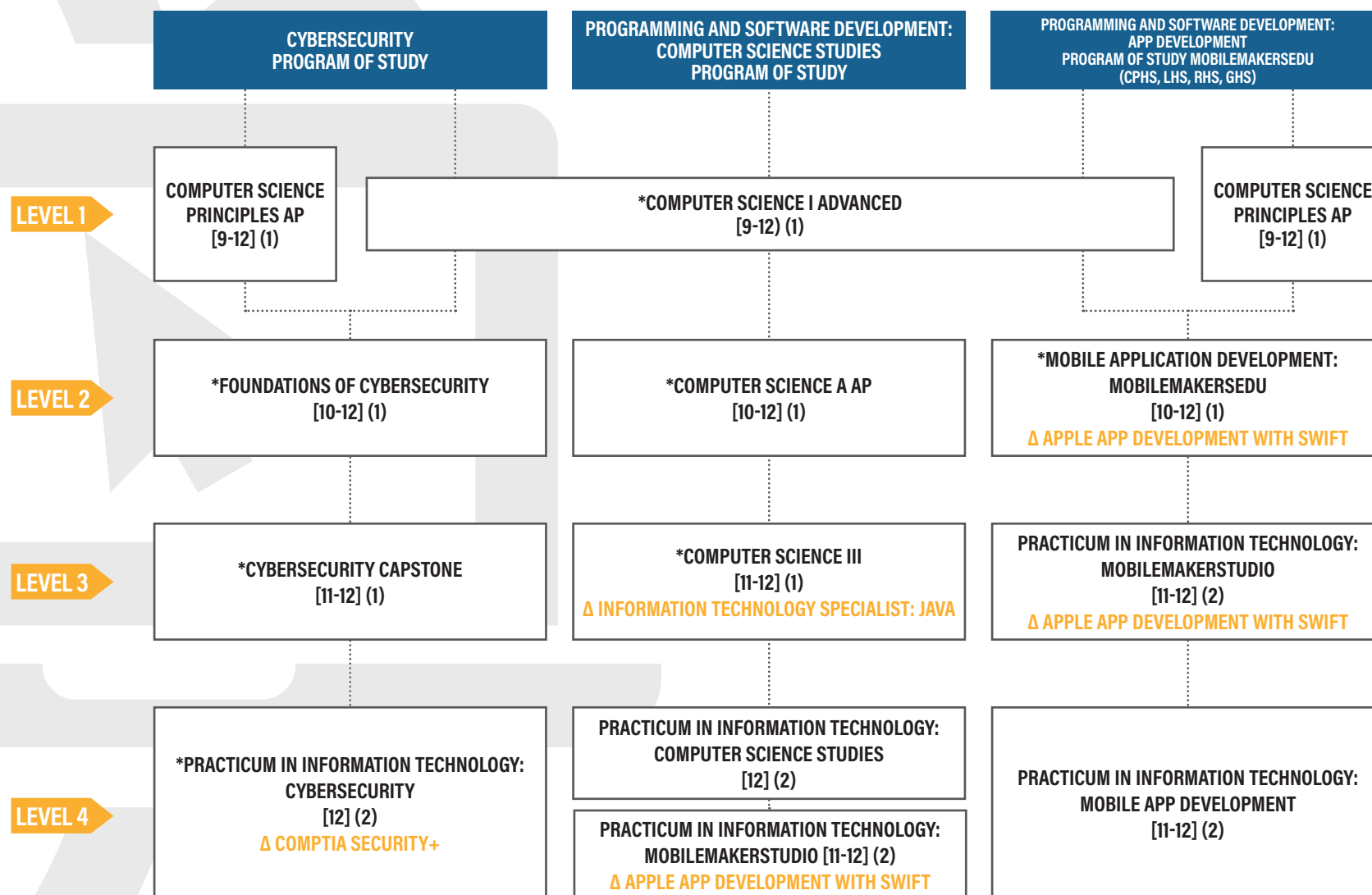
The Information Technology (IT) career cluster focuses on the design, development, support, and management of hardware, software, multimedia, and systems integration services. This career cluster includes occupations ranging from Software Developer and Programmer to Cybersecurity Specialists and Network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



INFORMATION TECHNOLOGY

Recommended Course Sequences

*COURSE HAS A REQUIRED PREREQUISITE
Δ INDUSTRY-BASED CERTIFICATION (IBC)
[] GRADE LEVEL(S)
() CREDITS
◇ SPECIALIZED PROGRAM



BUSINESS AND INDUSTRY

Note: Refer to course catalog for additional course sequence options, course descriptions, General Business, Marketing, and Finance Program of Study option, and endorsement requirements. Dual credit courses may be substituted for requirements in appropriate areas; check with your counselor on available options. Specialized programs located on specific high school campuses are open to all LISD students; check with your campus College and Career Transition Coordinator for details.

CYBERSECURITY

PROGRAM OF STUDY

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

INDUSTRY-BASED CERTIFICATION OPPORTUNITIES			
Comp TIA Security+			
WORK-BASED LEARNING EXPERIENCES			
Industry Site Visits/Field Trips; Industry Guest Speakers; Simulations			
CAREER AND TECHNICAL STUDENT ORGANIZATIONS			
UIL; National Technology Honor Society (NTHS); Computer Science Club; Robotics			
OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	10-YEAR GROWTH
Computer User Support Specialists	\$51,411	5,757	21%
Software Developers	\$111,705	15,324	36%
Information Security Analysts	\$110, 268	1,719	49%

Data Source: TexasWages, TexasWorkforce Commission, March 2024



RECOMMENDED COURSE SEQUENCE

- 1 LEVEL** Computer Science Principles AP or Computer Science I Advanced
- 2 LEVEL** Foundations of Cybersecurity
- 3 LEVEL** Cybersecurity Capstone
- 4 LEVEL** Practicum in IT: Cybersecurity

NOTE: See reverse for endorsement requirements. Course descriptions and details can be found in the course catalog.

GET A GLIMPSE:
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THIS PROGRAM OF STUDY



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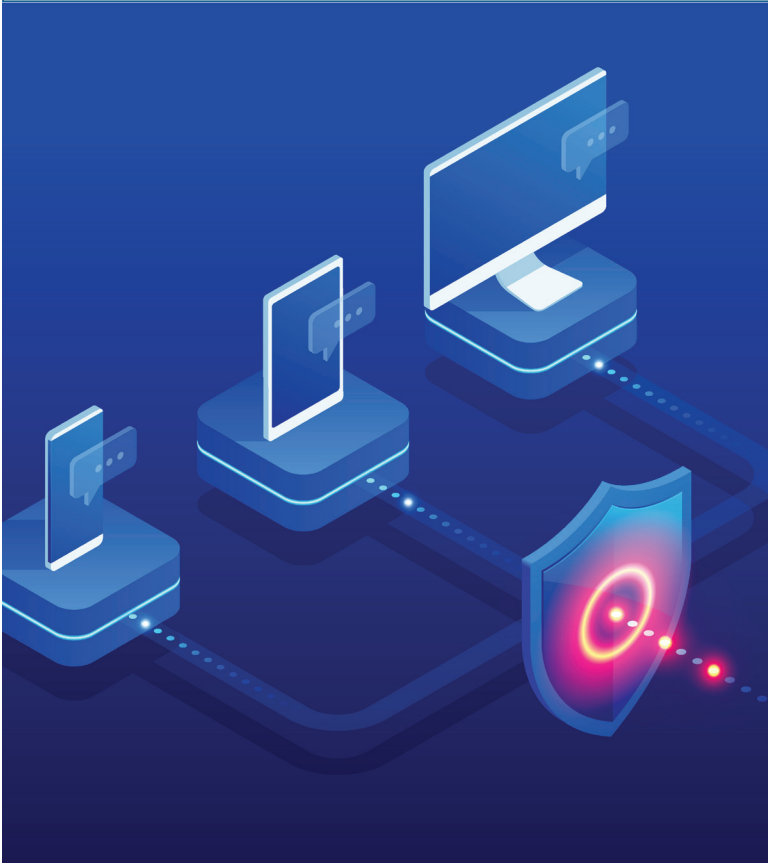
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ENDORSEMENT REQUIREMENTS

A student may earn a STEM endorsement by completing Algebra II, Chemistry and Physics in addition to the required credits from at least one Area of Concentration or CTE Program of Study listed below.

**Course has a required prerequisite*



7 CREDITS REQUIRED

Required Courses:

- Algebra II (1)
- Chemistry (1)
- Physics (1)
- *Cybersecurity Capstone (1)

Choose additional credits from the following:

- Fundamentals of Computer Science (1)
- Computer Science Principles AP (1)
- *Foundations of Cybersecurity (1)
- *Computer Science I Advanced (1)
- *Computer Science A AP (1)
- IB Computer Science SL (1)
- IB Computer Science HL (2)
- *Independent Study in Technology Applications (1)
- *Practicum in Information Technology: Cybersecurity (2)
- *CTE Project-Based Capstone (1)
- *Career Preparation for Programs of Study (3)

NOTE: Students who do not complete Algebra II, Chemistry and Physics, but earn four credits in the Cybersecurity Program of Study, are eligible to earn a Business and Industry Endorsement.

INDUSTRY-BASED CERTIFICATION

CompTIA Security+ is a global certification that validates the baseline skills necessary to perform core security functions and pursue an IT security career. It is the most widely adopted ISO/ANSI-accredited early career cybersecurity certification that allows for hands-on, performance-based questions on the certification exam.

NOTES:

DISCOVER MORE:
SCAN THE QR CODE
TO EXPLORE ALL CTE
PROGRAMS OF STUDY



PROGRAMMING AND SOFTWARE DEVELOPMENT: COMPUTER SCIENCE STUDIES

PROGRAM OF STUDY

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

INDUSTRY-BASED CERTIFICATION OPPORTUNITIES

Information Technology Specialist: JAVA

WORK-BASED LEARNING EXPERIENCES

Industry Site Visits/Field Trips; Industry Guest Speakers; Internships/Externships

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

UIL; National Technology Honor Society (NTHS); Computer Science Club; Robotics

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	10-YEAR GROWTH
Computer User Support Specialists	\$51,411	5,757	21%
Software Developers	\$111,705	15,324	36%
Computer Programmers	\$87,997	1,176	4%

Data Source: TexasWages, TexasWorkforce Commission, March 2024



RECOMMENDED COURSE SEQUENCE

- 1 LEVEL** Computer Science I Advanced
- 2 LEVEL** Computer Science A AP
- 3 LEVEL** Computer Science III; Computer Science IB SL/HL
- 4 LEVEL** Practicum in IT: Computer Science Studies; Practicum in IT: MobileMakerStudio

NOTE: See reverse for endorsement requirements. Course descriptions and details can be found in the course catalog.

GET A GLIMPSE:
SCAN THE QR CODE TO
WATCH AND LEARN ABOUT
THIS PROGRAM OF STUDY



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.

Continuous Public Notification of Non-Discrimination

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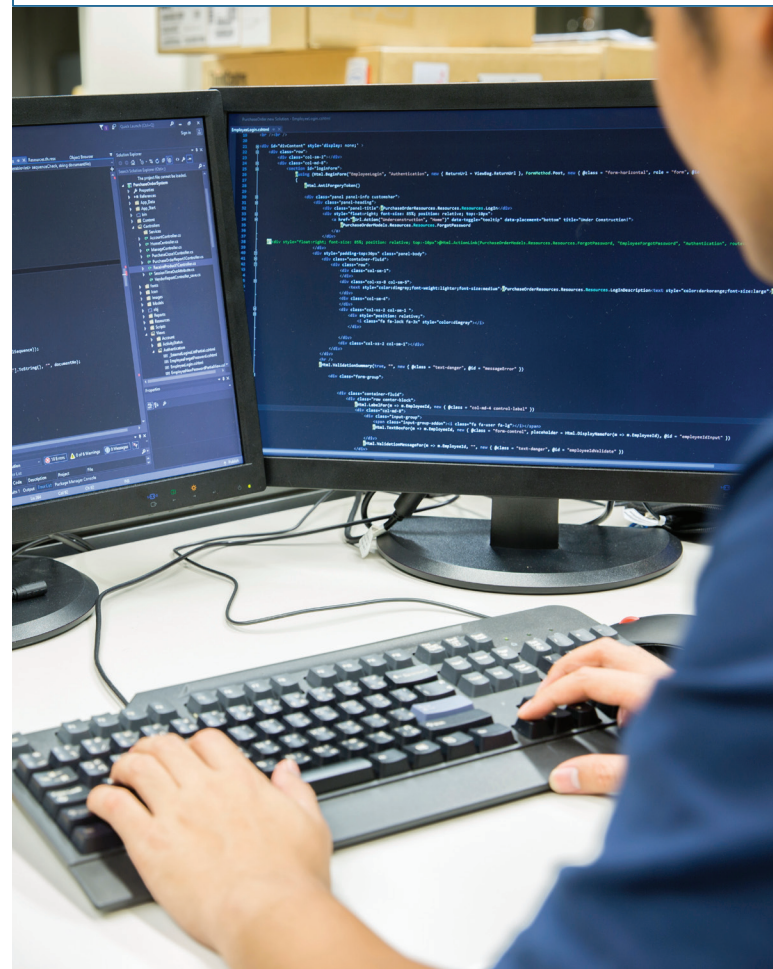
PROGRAMMING AND SOFTWARE DEVELOPMENT: COMPUTER SCIENCE STUDIES

SCIENCE, TECHNOLOGY, ENGINEERING, AND MATH

ENDORSEMENT REQUIREMENTS

A student may earn a STEM endorsement by completing Algebra II, Chemistry and Physics in addition to the required credits from at least one Area of Concentration or CTE Program of Study listed below.

**Course has a required prerequisite*



7 CREDITS REQUIRED

Required Courses:

- Algebra II (1)
- Chemistry (1)
- Physics (1)
- *Computer Science A AP (1)

Choose additional credits from the following:

- Fundamentals of Computer Science (1)
- Computer Science Principles AP (1)
- *Computer Science I Advanced (1)
- *Computer Science III (1)
- Computer Science IB SL (1)
- Computer Science IB HL (2)
- *Practicum in IT: Computer Science (2)
- *Mobile Application Development: MobileMakersEdu (1)
- *Practicum in Information Technology: MobileMakersStudio (2)
- *Career Preparation for Programs of Study (3)
- *CTE Project-Based Capstone (1)
- *Independent Study in Technology Applications (1)
- Entrepreneurship I (1)

NOTE: Students who do not complete Algebra II, Chemistry and Physics, but earn four credits in the Programming and Software Development Program of Study, are eligible to earn a Business and Industry Endorsement.

INDUSTRY-BASED CERTIFICATION

The Information Technology Specialist: JAVA program is a way for students to validate foundational IT skills sought after by employers. The IT Specialist: Java program is aimed at individuals who are considering or just beginning a path to a career in information technology.

NOTES:

DISCOVER MORE:
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PROGRAMS OF STUDY



PROGRAMMING AND SOFTWARE DEVELOPMENT: APP DEVELOPMENT

(MOBILEMAKERSEDU)

PROGRAM OF STUDY

Through the Programming and Software Development: App Development (MobileMakersEdu) Program of Study students learn coding and design skills to bring mobile app ideas to life. During this process students build working apps for Apple's mobile devices using the language and tools of professionals – Swift and Xcode.

INDUSTRY-BASED CERTIFICATION OPPORTUNITIES

Apple App Development with Swift

WORK-BASED LEARNING EXPERIENCES

Learn in Dev-Shop Environment; Industry Guest Speakers/Panels; Industry Developer Mentors; Job Shadows; Internships; Industry and Post Secondary Education Site Visits/Field Trips; Industry/Community App Development; Meet The Maker Event

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

UIL; National Technology Honor Society (NTHS); DECA; Science Fair

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	10-YEAR GROWTH
Computer User Support Specialists	\$51,411	5,757	21%
Software Developers	\$111,705	15,324	36%
Computer Programmers	\$87,997	1,176	4%

Data Source: TexasWages, TexasWorkforce Commission, March 2024



RECOMMENDED COURSE SEQUENCE

- 1 LEVEL** Computer Science Principals AP, Computer Science I Advanced
- 2 LEVEL** Mobile Application Development: MobileMakerEdu (CPHS, LHS, RHS)
- 3 LEVEL** Practicum in IT: MobileMakerStudio (CPHS, LHS, RHS)
- 4 LEVEL** Practicum in IT: Mobile App Development (CPHS, LHS, RHS)

NOTE: See reverse for endorsement requirements. Course descriptions and details can be found in the course catalog.

GET A GLIMPSE:
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THIS PROGRAM OF STUDY



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.

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PROGRAMMING AND SOFTWARE DEVELOPMENT: APP DEVELOPMENT

(MOBILEMAKERSEDU)

SCIENCE, TECHNOLOGY,
ENGINEERING, AND MATH

ENDORSEMENT REQUIREMENTS

A student may earn a STEM endorsement by completing Algebra II, Chemistry and Physics in addition to the required credits from at least one Area of Concentration or CTE Program of Study listed below.

**Course has a required prerequisite*

7 CREDITS REQUIRED

Required Courses:

- Algebra II (1)
- Chemistry (1)
- Physics (1)
- *Mobile Application Development: MobileMakersEdu (1) (CPHS, LHS, RHS)

Choose additional credit from the following:

- Fundamentals of Computer Science (1)
- Computer Science Principles AP (1)
- *Computer Science I Advanced (1)
- *Computer Science A AP (1)
- Computer Science IB HL (1)
- Computer Science IB SL (1)
- Entrepreneurship I (1)
- *Practicum in Information Technology: MobileMakersStudio (2)
- *Practicum in Information Technology: Mobile App Development (2)
- *Independent Study in Technology Applications (1)
- *Career Preparation for Programs of Study (3)
- *CTE Project-Based Capstone (1)

NOTE: Students who do not complete Algebra II, Chemistry and Physics, but earn four credits in the Programming and Software Development Program of Study, are eligible to earn a Business and Industry Endorsement.

INDUSTRY-BASED CERTIFICATION

The App Development with Swift Associate exam demonstrates knowledge of the impact of computing and apps on society, economies, and cultures while exploring iOS app development.

NOTES:

DISCOVER MORE:
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TO EXPLORE ALL CTE
PROGRAMS OF STUDY





LAW & PUBLIC SERVICE

Law Enforcement

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



LAW AND PUBLIC SERVICE

Recommended Course Sequences

*COURSE HAS A REQUIRED PREREQUISITE

▲ INDUSTRY-BASED CERTIFICATION (IBC)

[] GRADE LEVEL(S)

() CREDITS

◇ SPECIALIZED PROGRAM

LEVEL 1

LEVEL 2

LEVEL 3

LEVEL 4

LAW ENFORCEMENT
PROGRAM OF STUDY
◇ GHS

PRINCIPLES OF LAW, PUBLIC SAFETY, CORRECTIONS AND SECURITY
[9] (1)

LAW ENFORCEMENT I
[10-11] (1)

*CRIMINAL INVESTIGATION
[11-12] (1)

*LAW ENFORCEMENT II
[11-12] (1)

COUNSELING AND MENTAL HEALTH
[11-12] (1)

*FORENSIC SCIENCE
[11-12] (1)

PRACTICUM IN LAW, PUBLIC SAFETY,
CORRECTIONS AND SECURITY: LAW
ENFORCEMENT [12] (2)
▲ OSHA 10 LAW ENFORCEMENT
▲ IAED EMERGENCY TELECOMMUNICATOR

PUBLIC SERVICE

Note: Refer to course catalog for additional course sequence options, course descriptions and endorsement requirements. Dual credit courses may be substituted for requirements in appropriate areas; check with your counselor on available options. Specialized programs located on specific high school campuses are open to all LISD students; check with your campus College and Career Transition Coordinator for details.

LAW ENFORCEMENT

PROGRAM OF STUDY

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

INDUSTRY-BASED CERTIFICATION OPPORTUNITIES

OSHA 10 Law Enforcement; IAED Emergency Telecommunicator

WORK-BASED LEARNING EXPERIENCES

Industry Guest Speakers/Panels; Industry Site Visits/Field Trips; Community Service; Internships/Externships

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

SkillsUSA; National Technical Honor Society (NTHS)

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	10-YEAR GROWTH
Police and Sheriff's Patrol Officers	\$64,373	5,424	13%
Detectives and Criminal Investigators	\$82,090	1,536	8%
First-Line Supervisors of Police and Detectives	\$97,571	546	12%

Data Source: TexasWages, TexasWorkforce Commission, March 2024



RECOMMENDED COURSE SEQUENCE

- 1 LEVEL** Principles of Law, Public Safety, Corrections, and Security (GHS)
- 2 LEVEL** Law Enforcement I (GHS)
- 3 LEVEL** Law Enforcement II; Criminal Investigation (GHS); Counseling and Mental Health
- 4 LEVEL** Forensic Science; Practicum in Law, Public Safety, Corrections and Security: Law Enforcement (GHS)

NOTE: See reverse for endorsement requirements. Course descriptions and details can be found in the course catalog.

GET A GLIMPSE:
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THIS PROGRAM OF STUDY



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

Continuous Public Notification of Non-Discrimination

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ENDORSEMENT REQUIREMENTS

A student may earn a Public Service endorsement by completing the required credits from the CTE Program of Study list below.

**Course has a required prerequisite*



4 CREDITS REQUIRED

Required Courses: Choose at least one course from the following:

- *Law Enforcement II (1)
- *Forensic Science (1)

Choose additional credits from the following:

- Principles Law, Public Safety, Corrections and Security (1)
- Law Enforcement I (1)
- *Criminal Investigations (1)
- *Practicum in Law, Public Safety, Corrections and Security (2)
- *Counseling and Mental Health (1)
- *Career Preparation for Programs of Study (3)

INDUSTRY-BASED CERTIFICATION

Our OSHA 10-Hour General Industry (Public Safety: Law Enforcement, Corrections, Security) course provides training for entry-level workers on the recognition, avoidance, abatement, and prevention of safety and health hazards in workplaces, as well as information regarding workers' rights and employer responsibilities. Through this training, OSHA helps to ensure that workers have the knowledge they need to stay safe on the job.

Students who successfully complete the CareerSafe OSHA 10-Hour General Industry (Public Safety: Law Enforcement, Corrections, Security) course receive a US Department of Labor OSHA 10-Hour General Industry card—a credential that holds value for a lifetime.

As the lifeline to people in crisis, emergency dispatchers must continuously learn, improve, and validate their skills so as to guide callers through complex emergency situations. Certification helps ensure that the high standards of customer service, care, and public safety are met. To become certified, individuals start by taking courses in medical, fire, or police dispatching and/or nurse triage developed under the direction of IAED's Boards of Curriculum. These courses provide 24 hours of direct experience and ample opportunity to learn and practice scientifically proven protocols. After completing the course, dispatchers take a written exam to achieve their certification.

DISCOVER MORE:
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PROGRAMS OF STUDY



NOTES:



TRANSPORTATION, DISTRIBUTION, & LOGISTICS

Automotive

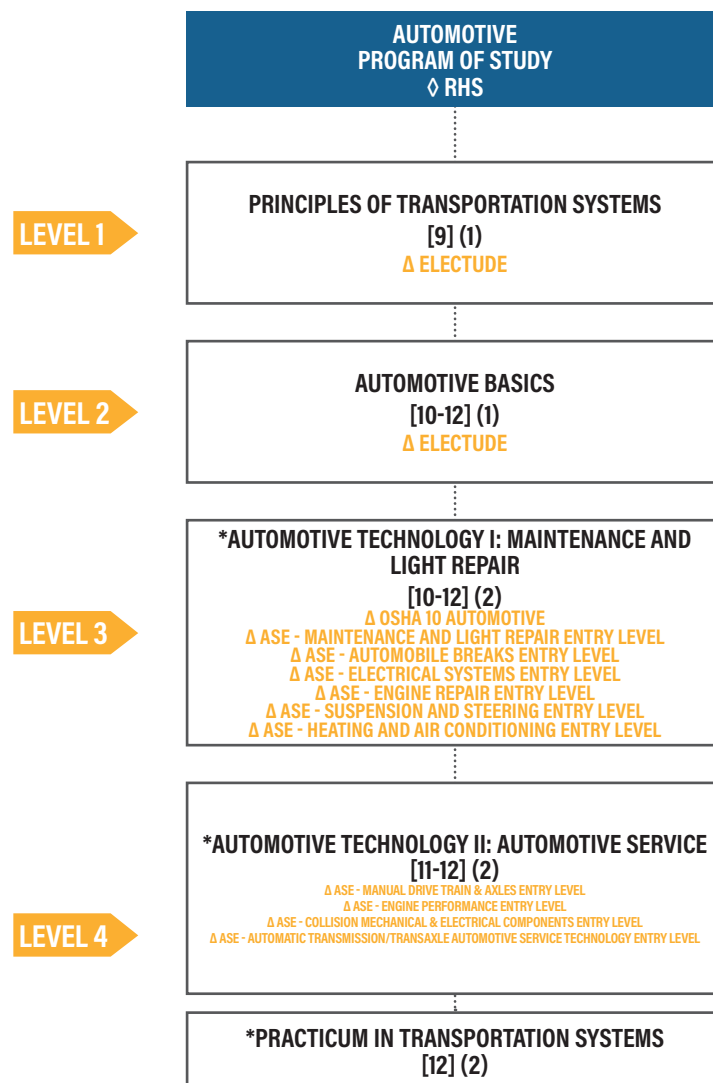
The Transportation, Distribution, and Logistics Career Cluster focuses on careers in planning, management, and movement of people, materials, and goods by road, pipeline, air, rail, and water. It also includes related professional support services such as transportation infrastructure planning and management,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



TRANSPORTATION, DISTRIBUTION, AND LOGISTICS

Recommended Course Sequences

*COURSE HAS A REQUIRED PREREQUISITE
Δ INDUSTRY-BASED CERTIFICATION (IBC)
[] GRADE LEVEL(S)
() CREDITS
◇ SPECIALIZED PROGRAM



BUSINESS AND INDUSTRY

Note: Refer to course catalog for additional course sequence options, course descriptions and endorsement requirements. Dual credit courses may be substituted for requirements in appropriate areas; check with your counselor on available options. Specialized programs located on specific high school campuses are open to all LISD students; check with your campus College and Career Transition Coordinator for details.

AUTOMOTIVE

PROGRAM OF STUDY

The Automotive Program of Study teaches students how to repair and service various types of automobiles. Students may learn to collect payment for services or supplies and perform typical vehicle maintenance procedures such as fluid exchanges, brakes and vehicle component diagnosis and replacement.

INDUSTRY-BASED CERTIFICATION OPPORTUNITIES

OSHA 10 Automotive ;
S/P2 Safety Certification;
Automotive Service Excellence (ASE) Entry Level Certifications

WORK-BASED LEARNING EXPERIENCES

Technical School Guest Speakers; Automotive Industry Speakers;
Automotive SkillsUSA Competitions;
Community Repair Service Projects; Internships.

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

SkillsUSA; National Technical Honor Society (NTHS)

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	10-YEAR GROWTH
Automotive Service Technicians and Mechanics	\$44,809	6,285	10%
Bus and Truck Mechanics and Diesel Engine Specialists	\$50,967	3,096	19%
First-Line Supervisors of Mechanics, Installers, and Repairers	\$66,535	5,019	19%

Data Source: TexasWages, TexasWorkforce Commission, March 2024



RECOMMENDED COURSE SEQUENCE

- 1 LEVEL** Principles of Transportation Systems (RHS)
- 2 LEVEL** Automotive Basics (RHS)
- 3 LEVEL** Automotive Technology I: Maintenance and Light Repair (RHS)
- 4 LEVEL** Automotive Technology II: Automotive Service or Practicum in Transportation Systems (RHS)

NOTE: See reverse for endorsement requirements. Course descriptions and details can be found in the course catalog.

GET A GLIMPSE:
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THIS PROGRAM OF STUDY



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

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ENDORSEMENT REQUIREMENTS

A student may earn a Business and Industry endorsement by completing the required credits from the CTE Program of Study list below.

**Course has a required prerequisite*

4 CREDITS REQUIRED

Required Course:

- *Automotive Technology I: Maintenance and Light Repair (2) (RHS)

Choose additional credits from the following:

- Principles of Transportation System (1)
- Automotive Basics (1)
- *Automotive Technology II: Automotive Service (2)
- *Practicum in Transportation Systems (2)
- Entrepreneurship I (1)
- *Career Preparation for Programs of Study (3)



INDUSTRY-BASED CERTIFICATION

Electude and CCAR eSafety have partnered to help automotive learners understand automotive safety best practices for light and heavy vehicle systems. This online curriculum and credential for today's generation of learners was created in partnership with CCAR (Coordinating Committee for Automotive Repair), a proud OSHA Ambassador Partner and the only partner for automotive. Available in the United States, and jurisdictions that come under OSHA.

Our OSHA 10-Hour General Industry (Automotive) course provides training for entry-level workers on the recognition, avoidance, abatement, and prevention of safety and health hazards in workplaces, as well as information regarding workers' rights and employer responsibilities. Through this training, OSHA helps to ensure that workers have the knowledge they need to stay safe on the job.

Students who successfully complete the CareerSafe OSHA 10-Hour General Industry (Automotive) course receive a US Department of Labor OSHA 10-Hour General Industry card—a credential that holds value for a lifetime.

Automotive Service Excellence (ASE) Certifications

ASE, is short for the National Institute for Automotive Service Excellence. Since 1972 the independent non-profit organization has worked to improve the quality of vehicle repair and service by testing and certifying automotive professionals. ASE promotes excellence in vehicle repair, service and parts distribution. ASE Certified Professionals work in every part of the automotive service industry. ASE certified automotive technicians and service professionals, not the auto shops.

ASE Entry-Level Automotive Maintenance and Light Repair (MR) - ASE Entry-Level Certification: Engine Repair (ER) -
 ASE Entry-Level Brakes (BR) - ASE Entry-Level Suspension and Steering (SS) -
 ASE Entry-Level Mechanical and Electrical Components (ME) - ASE Entry-Level Automatic Transmission/Transaxle (AT) -
 ASE Entry-Level Engine Performance (EP) - ASE Entry-Level Heating and A/C (AC) -
 ASE Entry-Level Certification: Manual DriveTrain and Axles (MD)



CTE SUPPORTED ELECTIVES

Advanced Journalism: News Media

Advanced Journalism: Yearbook

Career Preparation

JROTC: Air Force

JROTC: Navy

ADVANCED JOURNALISM: NEWS MEDIA

PROGRAM OF STUDY

Journalism, Photojournalism and school-sponsored newspapers and yearbooks serve as a laboratory and an educational tool in the training of student journalists to provide information and editorial leadership. Students focus on matters concerning the school, local, national and international issues, to provide a forum for the exchange of ideas and viewpoints and to give coverage of newsworthy events directly related to the school, individual students, staff and organizations. These student-driven publications provide journalism staff members with hands-on scholastic training on management and production of the school publications, using editorial judgment and journalistic integrity, as well as working within time constraints and budget limitations.

OCCUPATIONS CHART

Sports Information Director · Public Information Officer · Copywriter · Influencer · Brand Manager · Videographer · Content Producer · Digital Marketer · Consumer Market Specialist · Media Sales Manager · Publisher · Multimedia Artist · Television Producer · Webmaster · Sports Broadcaster · Sales Manager · Social Media Manager · Production Assistant · Teacher · Photojournalist · Executive Producer · Foreign Correspondent · Creative Director · Media Relations Advertising Specialist · Public Relations Manager · Reporter · Political Communication Director · Graphic Designer · Editor · Communications Director · Promotions Manager · Advertising Account Executive · Multimedia Journalist

STUDENT EXPERIENCES

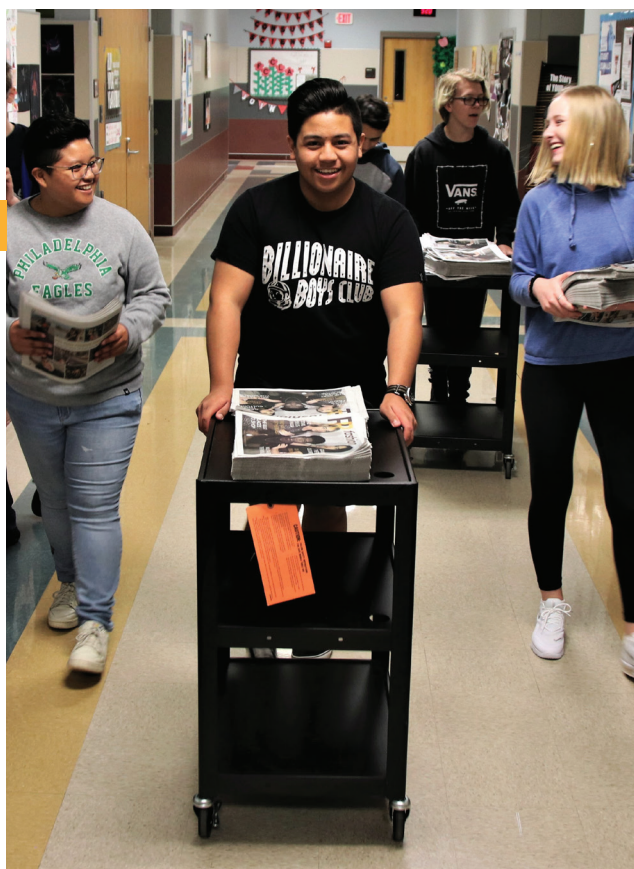
1. Plan, produce & publish campus publications including yearbook, newspaper & news media website.
2. Attend and compete at local, state and national journalism conventions.
3. Work with industry professionals at summer journalism workshops and fall intensity workshop.
4. Produce news content for local newspaper.

EXTRA-CURRICULAR/ STUDENT ORGANIZATIONS

UIL Writing Team: News Writing, Feature Writing, Editorial Writing, Headline Writing, Copy Editing

Scholastic Journalism Organizations:

1. Interscholastic League Press Conference ILPC (Journalism branch of UIL for Texas)
2. National Scholastic Press Association
3. National Columbia Scholastic Press Association
4. Quill & Scroll Honor Society (some campuses)



RECOMMENDED COURSE SEQUENCE

- 1 LEVEL** Journalism
- 2 LEVEL** Advanced Journalism: News Media I; Photojournalism I
- 3 LEVEL** Advanced Journalism: News Media II
- 4 LEVEL** Advanced Journalism: News Media III

NOTE: See reverse for endorsement requirements. Course descriptions and details can be found in the course catalog.

GET A GLIMPSE:
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ADVANCED JOURNALISM: NEWS MEDIA

BUSINESS AND INDUSTRY

ENDORSEMENT REQUIREMENTS

A student may earn a Business and Industry endorsement by completing the required credits from the CTE Program of Study list below.
**Course has a required prerequisite*

A student may earn a Business and Industry endorsement by completing the required credits from the CTE Program of Study list below.
**Course has a required prerequisite*



4 CREDITS REQUIRED

Choose three credits of the same discipline in one of the following areas:

- Advanced Journalism: News Media I-III
- Advanced Journalism: Yearbook I-III
- Debate I-III

Choose additional credit from the following:

- Journalism
- Independent Study in Speech
- Independent Study in Journalism
- English IV
- AP English Literature and Composition
- IB Language Studies

4 CREDITS REQUIRED

Choose three credits of the same discipline in one of the following areas:

- Advanced Journalism: News Media I-III
- Advanced Journalism: Yearbook I-III
- Debate I-III

Choose additional credit from the following:

- Journalism
- Independent Study in Speech
- Independent Study in Journalism
- English IV
- AP English Literature and Composition
- IB Language Studies

- ## 4 CREDITS REQUIRED
- Choose three credits of the same discipline in one of the following areas:**
- Advanced Journalism: News Media I-III
 - Advanced Journalism: Yearbook I-III
 - Debate I-III
- Choose additional credit from the following:**
- Journalism
 - Independent Study in Speech
 - Independent Study in Journalism
 - English IV
 - AP English Literature and Composition
 - IB Language Studies

4 CREDITS REQUIRED

Choose three credits of the same discipline in one of the following areas:

- Advanced Journalism: News Media I-III
- Advanced Journalism: Yearbook I-III
- Debate I-III

Choose additional credit from the following:

- Journalism
- Independent Study in Speech
- Independent Study in Journalism
- English IV
- AP English Literature and Composition
- IB Language Studies

- ## 4 CREDITS REQUIRED
- Choose three credits of the same discipline in one of the following areas:**
- Advanced Journalism: News Media I-III
 - Advanced Journalism: Yearbook I-III
 - Debate I-III
- Choose additional credit from the following:**
- Journalism
 - Independent Study in Speech
 - Independent Study in Journalism
 - English IV
 - AP English Literature and Composition
 - IB Language Studies

NOTES:

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ADVANCED JOURNALISM: YEARBOOK

PROGRAM OF STUDY

Journalism, Photojournalism and school-sponsored newspapers and yearbooks serve as a laboratory and an educational tool in the training of student journalists to provide information and editorial leadership. Students focus on matters concerning the school, local, national and international issues, to provide a forum for the exchange of ideas and viewpoints and to give coverage of newsworthy events directly related to the school, individual students, staff and organizations. These student-driven publications provide journalism staff members with hands-on scholastic training on management and production of the school publications, using editorial judgment and journalistic integrity, as well as working within time constraints and budget limitations.

OCCUPATIONS CHART

Sports Information Director · Public Information Officer · Copywriter · Influencer · Brand Manager · Videographer · Content Producer · Digital Marketer · Consumer Market Specialist · Media Sales Manager · Publisher · Multimedia Artist · Television Producer · Webmaster · Sports Broadcaster · Sales Manager · Social Media Manager · Production Assistant · Teacher · Photojournalist · Executive Producer · Foreign Correspondent · Creative Director · Media Relations · Advertising Specialist · Public Relations Manager · Reporter · Political Communication Director · Graphic Designer · Editor · Communications Director · Promotions Manager · Advertising Account Executive · Multimedia Journalist

STUDENT EXPERIENCES

1. Plan, produce & publish campus publications including yearbook, newspaper & news media website.
2. Attend and compete at local, state and national journalism conventions.
3. Work with industry professionals at summer journalism workshops and fall intensity workshop.
4. Produce news content for local newspaper.

EXTRA-CURRICULAR/ STUDENT ORGANIZATIONS

UIL Writing Team: News Writing, Feature Writing, Editorial Writing, Headline Writing, Copy Editing

Scholastic Journalism Organizations:

1. Interscholastic League Press Conference ILPC (Journalism branch of UIL for Texas)
2. National Scholastic Press Association
3. National Columbia Scholastic Press Association
4. Quill & Scroll Honor Society (some campuses)



RECOMMENDED COURSE SEQUENCE

- 1 LEVEL** Journalism
- 2 LEVEL** Advanced Journalism: Yearbook I; Photojournalism I
- 3 LEVEL** Advanced Journalism: Yearbook II
- 4 LEVEL** Advanced Journalism: Yearbook III

NOTE: See reverse for endorsement requirements. Course descriptions and details can be found in the course catalog.

GET A GLIMPSE:
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ENDORSEMENT REQUIREMENTS

A student may earn a Business and Industry endorsement by completing the required credits from the CTE Program of Study list below.

**Course has a required prerequisite*

**Course has a required prerequisite*



4 CREDITS REQUIRED

Choose three credits of the same discipline in one of the following areas:

- Advanced Journalism: News Media I-III
- Advanced Journalism: Yearbook I-III
- Debate I-III

Choose additional credit from the following:

- Journalism
- Independent Study in Speech
- Independent Study in Journalism
- English IV
- AP English Literature and Composition
- IB Language Studies

Choose three credits of the same discipline in one of the following areas:

- Advanced Journalism: News Media I-III
- Advanced Journalism: Yearbook I-III
- Debate I-III

Choose additional credit from the following:

- Journalism
- Independent Study in Speech
- Independent Study in Journalism
- English IV
- AP English Literature and Composition
- IB Language Studies

NOTES:

DISCOVER MORE:
SCAN THE QR CODE
TO EXPLORE ALL CTE
PROGRAMS OF STUDY

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CAREER PREPARATION

Career Preparation provides opportunities for students to participate in a work-based learning experience that combines classroom instruction with business and industry employment experiences. The goal is to prepare students with a variety of skills for a changing workplace. Career preparation is relevant and rigorous, supports student attainment of academic standards, and effectively prepares students for college and career success.

This comparison highlights the broader, more generalized Career Preparation General course versus the structured, pathway-focused nature of the Career Preparation for Program of Study. For both, students are enrolled in a single-period course for direct instruction and allowed up to two Career Prep Off Campus periods for the purpose of work-based learning.

INDUSTRY-BASED CERTIFICATION OPPORTUNITIES

StartSafe. StaySafe. Workplace Safety Training.

With the CareerSafe philosophy, "StartSafe. StaySafe.", students will learn about their rights and responsibilities in the workplace and gain valuable knowledge about how they can protect themselves and others. Throughout the program, students explore a wide range of occupational safety and health topics including Introduction to OSHA, common physical and health hazards, hazard identification, and how to protect themselves from hazards, all intended to help them StartSafe. StaySafe.

CAREER PREPARATION GENERAL

Career Preparation General provides students with work-based learning experiences across a broad range of career fields.

Target Audience: Students seeking general career readiness, including entry-level positions.

Eligibility: Open to all students in grade 12 interested in career preparation.

Postsecondary Pathway Alignment: Broad options without a specific focus on a postsecondary path.

Examples: Entry-level positions in retail, customer service, or basic administrative roles. (Ex: Sales Associate at retail store, no or unrelated Program of Study).



Career Preparation I can count as credit in related Program of Study sequences leading to an Endorsement if the student's employment experience is aligned to the Program of Study.

- 3 Credits
- Senior Student Work Program-Paid Employment
- Students must have a job from the start of the school year to the end
- Off periods to go work
- Teacher Job Site Visits
- Work Evaluations
- Concurrent classroom learning and work experience
- Some job restrictions may apply
- Student must have employment throughout year. Teacher site visits. Employer evaluations.

CAREER PREPARATION FOR PROGRAMS OF STUDY

Career Preparation for Programs of Study Offers a structured pathway with specific courses focused on a particular career cluster. Will count toward student completion of a defined Program of Study if eligibility is met.

Target Audience: Students following a Program of Study toward a specific occupation or industry sector.

Eligibility: Students in grade 12 with prerequisite of at least one Level 2 or higher Career and Technical Education course. The student's employment experience must be related to their Program of Study.

Postsecondary Pathway Alignment: Aligns with college and career pathways in the chosen field.

Examples: Employment in a defined career pathway, strengthening knowledge and skills in that Program of Study (Ex: General Laborer, pursuing Construction Program of Study).

Continuous Public Notification of Non-Discrimination
Leander ISD does not discriminate on the basis of race, color, national origin, sex, or disability in its programs or activities and provides equal access to the Boy Scouts and other designated youth groups. The following person has been designated to handle inquiries regarding the nondiscrimination policies: Bryan Miller, Title IX Coordinator; 204 W. South Street Leander, TX 78646; Bryan.Miller@Leanderisd.org; (512) 570-0000.
[Español \(Spanish\)](#) | [తెలుగు \(Telugu\)](#)

AIR FORCE JUNIOR RESERVE OFFICER TRAINING CORPS

PROGRAM OF STUDY

AFJROTC provides citizenship training and an aerospace science program for high school students. Secondary school students who enroll in the AFJROTC program are offered a wide variety of curricular and co-curricular activities. The program explores the historic and scientific aspects of aerospace technology and teaches high school students self-reliance, self-discipline, and other leadership characteristics. By Title 10 United States Code, the program is a citizenship program and not chartered as a recruiting program for the military services and those students who participate in AFJROTC do not incur any obligation to the Air Force. AFJROTC objectives are to educate and train high school cadets in citizenship and life skills; promote community service; instill a sense of responsibility; and develop character, leadership, and self-discipline through education and instruction in air and space fundamentals and the Air Force's core values of integrity first, service before self and excellence in all we do. The course includes at least one day per week of physical fitness training. All students are expected to wear a uniform and conform to military grooming standards (hair and jewelry).

CAREER OPPORTUNITIES

Qualified students desiring a military career may earn advanced promotion upon initial enlistment in the service, nomination to a Service Academy, or ROTC scholarship opportunities.

WORK-BASED LEARNING AND /SERVICE-BASED LEARNING EXPERIENCES

- Leadership: Students will have many leadership opportunities as most AFJROTC activities are student led to the maximum extent possible.
- Co-Curricular Activities: Drill Team, ColorGuard, Physical Fitness Competition Team, Model Rocketry, Quadcopter Team, and Marksmanship team.
- Field Trips: At least one per academic year, usually to a military installation.
- Guest Speakers: Typically active duty speakers and recruiters as well as National Guard speakers and recruiters.
- Community Service: Community service projects are part of the curriculum and these provide good leadership opportunities to cadets in the program.

STUDENT ORGANIZATIONS AND LEADERSHIP OPPORTUNITIES

- Kitty Hawk AFJROTC Honor Society;
National Technical Honor Society (NTHS)
- Cadet Corps Staff Positions (Corps Commander, Squadron Commander, Flight Commander, Flight Sergeant)
 - Color Guard Commander
 - Drill Team Commander
 - Leander High School Flag Detail



RECOMMENDED COURSE SEQUENCE

- 1 LEVEL AFJROTC I (LHS)
- 2 LEVEL AFJROTC II (LHS)
- 3 LEVEL AFJROTC III (LHS)
- 4 LEVEL AFJROTC IV (LHS)

NOTE: Course descriptions and details can be found in the course catalog.

ENDORSEMENT

A student may earn a Public Service Endorsement by completing foundation and general endorsement requirements as well as completion of the AFJROTC Program of Study requirements listed below.

4 CREDITS REQUIRED

Choose 4 credits from Air Force JROTC (LHS):

- AFJROTC I (LHS)
- AFJROTC II (LHS)
- AFJROTC III (LHS)
- AFJROTC IV (LHS)



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NAVY JUNIOR RESERVE OFFICER TRAINING CORPS

PROGRAM MISSION

The Navy JROTC mission is to instill in students in United States secondary educational institutions the values of citizenship, service to the United States, personal responsibility and a sense of accomplishment.

CAREER OPPORTUNITIES

- Cadets accepted for enlistment, who provide evidence of successful completion of at least 3 years of NJROTC are entitled to advanced promotion to pay grade E-3 upon initial enlistment in an active or reserve component of the Navy, or Air Force, and pay grade E-2 in the Army or Marine Corps; or completion of 2 years are entitled to E-2 in the Navy.
- Senior Naval Science Instructor is authorized to nominate a maximum of three eligible cadets each year to compete for U.S. Naval Academy appointments.
- Administrators of host schools that are designated as Distinguished Units with Academic Honors may nominate three eligible NJROTC cadets as candidates for appointment to the U.S. Naval Academy, U.S. Military Academy, and U.S. Air Force Academy in addition to the three nominations above to the U.S. Naval Academy.

WORK-BASED LEARNING AND SERVICE-BASED LEARNING EXPERIENCES

The NJROTC accredited curriculum emphasizes citizenship and leadership development, as well as our maritime heritage, the significance of sea power, and naval topics such as the fundamentals of naval operations, seamanship, navigation and meteorology. Classroom instruction is augmented throughout the year by extra-curricular activities of community service, academic, athletic, drill and orienteering competitions, field meets, guest speakers, visits to naval or other activities, marksmanship sports training, STEM activities including Sea Perch and Cyberpatriot, and physical fitness training.



RECOMMENDED COURSE SEQUENCE

- 1 LEVEL** NJROTC I (VRHS)
- 2 LEVEL** NJROTC II (VRHS)
- 3 LEVEL** NJROTC III (VRHS)
- 4 LEVEL** NJROTC IV (VRHS)

NOTE: Course descriptions and details can be found in the course catalog.

ENDORSEMENT

A student may earn a Public Service Endorsement by completing foundation and general endorsement requirements as well as completion of the NJROTC Program of Study requirements listed below.

4 CREDITS REQUIRED

Choose 4 credits from Navy JROTC (VRHS):

- NJROTC I (VRHS)
- NJROTC II (VRHS)
- NJROTC III (VRHS)
- NJROTC IV (VRHS)



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