



Willis Independent School District

High School Course Catalog for 2025-2026

Table of Contents

<u>High School Graduation Requirements</u>	3
<u>Endorsements</u>	3
<u>Air Force JROTC</u>	6
<u>Career and Technical Education</u>	
<u>CTE-Agriculture, Food, and Natural Resources</u>	8
<u>CTE-Architecture and Construction</u>	12
<u>CTE-Arts, A/V Technology, and Communications</u>	15
<u>CTE-Business, Marketing, and Finance</u>	21
<u>CTE-Education and Training</u>	25
<u>CTE-Engineering</u>	27
<u>CTE-Health Science</u>	29
<u>CTE-Hospitality and Tourism</u>	32
<u>CTE-Human Services</u>	33
<u>CTE-Information Technology</u>	35
<u>CTE-Law, Public Safety, Corrections, and Security</u>	39
<u>CTE-Manufacturing</u>	41
<u>CTE-Transportation, Distribution, and Logistics</u>	43
<u>English Language Arts</u>	44
<u>Fine Arts</u>	
<u>Art</u>	49
<u>Dance</u>	52
<u>Music</u>	53
<u>Theatre</u>	56
<u>Health</u>	57
<u>Languages Other Than English</u>	58
<u>Local Credit</u>	62
<u>Mathematics</u>	62
<u>Other Electives</u>	65
<u>Physical Education</u>	
<u>Physical Education</u>	66
<u>Athletics - Physical Education Substitution</u>	66
<u>Science</u>	68
<u>Social Studies</u>	72
<u>Appendix - 4 Year Plans</u>	77

****All courses listed count towards W GPA unless designated otherwise

High School Graduation Requirements

Foundation High School Program with Endorsements

The Foundation High School with Endorsements is the recommended graduation plan for WISD students. Students must complete a total of twenty-six credits. In addition to the credit requirements, students must meet passing standards on the following End-of-Course (EOC) assessments: English I, English II, Biology, Algebra I, and U.S. History.

Four credits in each of the Core Subjects:

English: English I, English II, English III, English IV

Math: Algebra I, Geometry, Algebra II, One additional math course

Science: Biology, Chemistry/IPC, Two additional science courses

Social Studies: World Geography, World History, U.S. History, Government, Economics

Two credits in Language other than English (LOTE) - must consist of 2 credits of the same language

One credit in Fine Arts - Levels I-IV: Art, Dance, Music, Theater, or Floral Design

One credit in P.E. - Lifetime Fitness and Wellness Pursuits, Lifetime Recreation and Outdoor Pursuits, Skills-based Lifetime Activities. Can substitute Marching Band, Drill Team, Cheerleading, JROTC, Athletics, or approved Off-Campus physical activity program

One credit in CTE - Recommended to complete a CTE program of study (see pages below for a complete list of the available programs of study)

Five credits in Electives - additional coursework to complete an endorsement

Total credits: 26

Other Requirements: Instruction in CPR/AED; Course on *Proper Interaction with a Peace Officer* (Flashing Lights); Complete and submit a Free Application for Federal Student Aid (FAFSA); Demonstrate proficiency in Speech skills (covered in English courses)

Endorsements

Science, Technology, Engineering & Math (STEM)

- Complete these CTE Program of Study:
 - Engineering Foundations (must also meet math and science requirements below)
 - Cybersecurity (must also meet math and science requirements below)

- Programming and Software Development (must also meet math and science requirements below), -or-
- Coherent sequence of four courses in computer science, -or-
- Algebra II plus two additional math courses in which Algebra II is a pre-requisite -or-
- Four credits from the core science courses plus one additional science course

Business and Industry

Coherent sequence of four English elective courses to include three levels of one of the following:

- Advanced Broadcast Journalism
- Advanced Journalism: Newspaper
- Debate
- Advanced Journalism: Yearbook

-or

Complete these CTE Programs of Study:

- Agriculture Food and Natural Resources
 - Animal Science
 - Environmental and Natural Resources
 - Plant Science
- Architecture and Construction
 - Architectural Drafting and Design
 - Carpentry
 - Plumbing and Pipefitting
- Arts/Audio-Video Technology, and Communication
 - Digital Communications
 - Graphic Design and Interactive Media
- Business, Marketing, and Finance
 - Accounting and Financial Services
 - Business Management
 - Marketing and Sales
- Engineering
 - Engineering Foundations
- Hospitality and Tourism
 - Culinary Arts
- Information Technology
 - Cybersecurity
 - Programming and Software Development

- Manufacturing
 - Welding
- Transportation, Distribution and Logistics
 - Automotive and Collision Repair

Public Service

Complete these CTE Programs of Study:

- Education and Training
 - Early Learning
 - Teaching and Training
- Health Services
 - Diagnostic and Therapeutic Services
- Human Services
 - Cosmetology and Personal Care Services
- Law and Public Service
 - Law Enforcement

-or

Complete four courses in Junior Reserve Officer Training Corps (JROTC)

Arts and Humanities

- Four credits from the core social studies courses plus one additional social studies course, -or- • Four levels of the same Language other than English (LOTE), -or-
- Two levels of the same Language other than English (LOTE) and two more levels of a different LOTE, -or-
- Coherent sequence of four credits in one or two categories or disciplines of Fine Arts (Art, Dance, Theater Arts, Band, Choir, Orchestra), -or-
- Four core English courses plus three additional English electives (not including journalism and speech).

Multidisciplinary Studies

- Four advanced courses that prepare a student to enter the workforce successfully, or postsecondary education without remediation (no coherent sequence required), -or-
- Four credits in each of the four Foundation subject areas, -or-
- Four AP, IB* or dual credit courses selected from English, math, science, social studies, economics, LOTE or fine arts.

*IB applies to transfer students only.

Four Year Plans for each CTE Endorsement located in the Appendix starting on page 77.

Department: Air Force JROTC

JROTC CADET LEADERSHIP

WISD #: 6846000L

TIER 2 (Does not count toward WGPA)

Grades: 09-12

.5 Credit

Prerequisite: Approval - AFJROTC Instructor

Cadet Leadership Course (formerly Summer Leadership School and Leader Laboratory Activity) is a one-week long AFJROTC summer camp held on a university campus designed to teach responsibility, improve self-confidence, build self-discipline, develop leadership skills and strengthen character while using a strict, disciplined Air Force training format. Subjects taught are leadership, drill and ceremonies, physical training, character education, team building and attitude.

Department: Air Force JROTC

JROTC CADET SENIOR STAFF

WISD #: 6845000L

TIER 2 (Does not count toward WGPA)

Grades: 09-12

1 Credit

Prerequisite: Approval – AFJROTC Instructor, enrolled in JROTC 2, 3 or 4 completed JROTC 1 (required) and JROTC 2 (preferred). Minimum unweighted GPA of 3.0 in previous JROTC courses and minimum overall weighted GPA of 3.5.

In addition to the regular AFJROTC coursework for their appropriate cadet year, Senior Staff cadets will complete assignments associated with their corps staff positions. The positions include the Special Asst. to the SASI, Cadet Corps Group Commander and Deputy, Squadron Commanders, and other staff administrative positions. Duty description and responsibilities are listed/updated in the Cadet Guide each year.

Department: Air Force JROTC

JROTC I, II, & III

WISD #: 68410000, 68420000 & 68430000

TIER 2

Grades: 09-12

1 Credit

Prerequisite: Approval - AFJROTC Instructor

A blended course designed to accommodate first, second, and third year cadets (i.e. JROTC 1, 2, & 3) in the same classroom. The goal is to promote citizenship, develop leadership skills and build self-discipline. It includes instruction in air and space fundamentals, drill and ceremonies, physical education, health, global studies and character education. The primary Aerospace Science study area in 2025-2026 is "Milestones in Aviation History." It is an aviation history course focusing on the development of flight throughout the centuries. It starts with ancient civilizations and flight, then progresses through time to future developments in aerospace, with an introduction into cyber technologies. The primary study area for Leadership Education in 2025-2026 is "Traditions, Wellness, and Foundations of Citizenship" This course introduces cadets to the history, organization, mission, traditions, goals, and objectives of JROTC for all services. It also introduces key military customs and courtesies, describes how to project a positive attitude, and examines the principles of ethical and moral behavior. It provides strategies for effective note-taking and study skills for academic success. Lessons cover how to be emotionally, mentally, and physically healthy. Avoiding and preventing violence in today's society is also covered. Recognizing types of bullying and how to advocate for prevention of this type of behavior. It covers healthy living, physical fitness, and how to make safe, drug-free, and responsible decisions. Other topics include drill and ceremonies, health/wellness and military traditions. Additionally, cadets will be taught the fundamentals of Drill and Ceremonies. This portion of the course concentrates on the elements of military drill, and describes individual and group precision movements, procedures for saluting, drill, ceremonies, reviews, parades, and development of the command voice. Students are provided detailed instruction on ceremonial performances and protocol for civilian and military events and have the opportunity to personally learn drill. Most of the work is to be hands-on. The Wellness/Physical Fitness portion of the course is an exercise program focused upon individual base line improvements. The goal is to motivate AFJROTC cadets to lead active, healthy lifestyles beyond program requirements and into their adult lives. Cadets will be given

the opportunity to put into practice the wellness concepts that are in Leadership Education. AFJROTC 1 is an elective credit that can be used to waive the P.E. requirement. Group activities include community service projects, military installation visits, Military Ball, Field Day, Awards Night and individual/team physical training activities. Additional activities may include Color Guard, Drill Teams, Marksmanship, Robotics Team, Model Rocket Team, Aerial Drone Team, Physical Training Team and Academic Team (to name a few... list not all inclusive). Physical Education and/or general elective credit may be earned for successful completion of this JROTC course.

Department: Air Force JROTC

JROTC IV

WISD #: 68440000

TIER 2

Grades: 09-12

1 Credit

Prerequisite: Approval - AFJROTC Instructor, completed AFJROTC 1, 2, & 3

A course designed for fourth and select third year cadets to lead/manage cadet corps activities. The cadets will lead the corps using an organizational structure similar to an active-duty Air Force Group. The Aerospace Science course, "Management of the Cadet Corps", consists of hands-on experience that affords cadets the opportunity to put the theories of previous leadership courses into practice. The cadets under the supervision of the Senior Aerospace Science Instructor and the Aerospace Science Instructor will do all the planning, organizing, coordinating, directing, controlling, and decision making. They practice their communication, decision-making, personal-interaction, managerial, and organization skills. The leadership Education course, "Fundamentals of Management", is a course that provides exposure to the fundamentals of management. The text contains many leadership topics that will benefit students as well as provide them with some of the necessary skills needed to put into practice what they have learned during their time in AFJROTC. The Wellness/Physical Fitness portion is an exercise program focused upon individual base line improvements. The goal is to motivate JROTC cadets to lead active, healthy lifestyles beyond program requirements and into their adult lives. Cadets will be given the opportunity to put into practice the wellness concepts that are taught in Leadership Education. Group activities include community service projects, military installation visits, Military Ball, Field Day, Awards Night and individual/team physical training activities. Additional activities may include Color Guard, Drill Team, Awareness Presentation Team, Model Rocket Team, Radio-Controlled Aircraft Team, PT Team and Academic Team (to name a few... list not all inclusive).

To see complete Programs of Study for Agriculture, Food and Natural Resources or the 4 year plans, click on the links below:

[Animal Science](#)

[4 year plan](#)

[Environmental & Natural Resources](#)

[4 year plan](#)

[Plant Science](#)

[4 year plan](#)

Level 1 Courses:

Career Cluster: Agriculture, Food, and Natural Resources

Programs of Study: Animal Science, Environmental & Natural Resources, Plant Science

PRINCIPLES OF AGRICULTURE, FOOD, AND NATURAL RESOURCES

WISD #: 7009000C

TIER 2

Grades: 09-10

1 Credit

Prerequisite: Must be in grades 9 -10

This course allows students to develop knowledge and skills regarding career opportunities, personal development, globalization, industry standards, details, practices, and expectations.

Level 2 Courses:

Career Cluster: Agriculture, Food, and Natural Resources

Program of Study: Animal Science

EQUINE SCIENCE

WISD #: 7014000C

TIER 2

Grades: 10-12

.5 Credit

Prerequisite: Principles of AFNR or 11th-12th grade

This class is paired with Small Animal Management. To be prepared for careers in the field of animal science, students need to enhance academic knowledge and skills, acquire knowledge and skills related to animal systems, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. *National Horse Judging Team Coaches Association Equine Management & Evaluation Industry Based Certification available through this course.

Career Cluster: Agriculture, Food, and Natural Resources

Program of Study: Animal Science

SMALL ANIMAL MANAGEMENT

WISD #: 7015000C

TIER 2

Grades: 10-12

.5 Credit

Prerequisite: Principles of AFNR or 11th-12th grade

This course is paired with Equine Science. To be prepared for careers in the field of animal science, students need to enhance academic knowledge and skills, acquire knowledge and skills related to animal systems, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations.

Career Cluster: Agriculture, Food, and Natural Resources

Program of Study: Environmental & Natural Resources

WILDLIFE, FISHERIES AND ECOLOGY MANAGEMENT

WISD #: 7018000C TIER 2

Grades: 10-12 1 Credit

Prerequisite: Principles of AFNR or 11th-12th grade; \$15 fee for certification

This course examines the management of game and non-game wildlife species, fish, and aqua crops and their ecological needs as related to current agricultural practices. Hunter's Safety Education will be taught. (\$15 fee for certification)

*Ducks Unlimited Ecology Conservation and Management Industry Based Certification available through this course.

Career Cluster: Agriculture, Food, and Natural Resources

Program of Study: Plant Science

GREENHOUSE OPERATION AND PRODUCTION

WISD #: 7028000C TIER 2

Grades: 10-12 1 Credit

Prerequisite: Principles of AFNR or 11th-12th grade

Greenhouse Operation and Production is designed to develop an understanding of greenhouse production techniques and practices. To prepare for careers in horticultural systems, students must attain academic skills and knowledge, acquire technical knowledge and skills related to horticultural systems and the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations.

Level 3 Courses:

Career Cluster: Agriculture, Food, and Natural Resources

Program of Study: Animal Science

LIVESTOCK PRODUCTION

WISD #: 701000C TIER 2

Grades: 10-12 1 Credit

Prerequisite: Principles of Agriculture, Food, and Natural Resources

In Livestock Production, students will acquire knowledge and skills related to livestock and the livestock production industry. Livestock Production may address topics related to beef cattle, dairy cattle, swine, sheep, goats, and poultry. To prepare for careers in the field of animal science, students must attain academic skills and knowledge, acquire knowledge and skills related to animal systems and the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need opportunities to learn, reinforce, apply, and transfer their knowledge and skills in a variety of settings.

Career Cluster: Agriculture, Food, and Natural Resources

Program of Study: Plant Science

FLORAL DESIGN

WISD #: 7023000C TIER 2

Grades: 10-12 1 Credit

Prerequisite: Principles of Agriculture, Food and Natural Resources

To be prepared for careers in floral design, students need to attain academic skills and knowledge as well as technical knowledge and skills related to horticultural systems and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations.

Career Cluster: Agriculture, Food, and Natural Resources

Program of Study: Plant Science

HORTICULTURAL SCIENCE

WISD #: 7022000C

TIER 2

Grades: 10-12

1 Credit

Prerequisite: Principles of AFNR or 11th-12th grade

To be prepared for careers in horticultural systems, students need to attain academic skills and knowledge, acquire technical knowledge and skills related to horticulture and the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations.

Career Cluster: Agriculture, Food, and Natural Resources

Program of Study: Environmental & Natural Resources

RANGE ECOLOGY AND MANAGEMENT

WISD #: 702000C

TIER 2

Grades: 11-12

1 Credit

Prerequisite: Principles of AFNR or 11th-12th grade – Wildlife, Fisheries and Ecology Management

This course is designed to develop students' understanding of rangeland ecosystems and sustainable forage production.

Level 4 Courses:

Career Cluster: Agriculture, Food, and Natural Resources

Program of Study: Animal Science

ADVANCED ANIMAL SCIENCE

WISD #: 7016000C

TIER 2

Grades: 12

1 Credit

Prerequisite: AFNR Pathway / 12th grade only

This course is designed to prepare students in the field of animal science, attain knowledge of animal species such as cattle, swine, sheep and goats. It will introduce students to industry standards, career opportunities and entry requirements. *Alanco Fundamentals of Animal Science Industry Based Certification available through this course.

Career Cluster: Agriculture, Food, and Natural Resources

Programs of Study: Animal Science, Environmental & Natural Resources, Plant Science

BIOLOGY DUAL CREDIT (SCIENTIFIC RESEARCH & DESIGN)

WISD #: 63110D0C

TIER 1

Grades: 11-12

1 Credit

Prerequisite: Biology, Chemistry; qualifying TSI scores in ELA and Math

BIOL 1406: A contemporary course including applications of the scientific method, cellular and molecular biology, biochemistry, classical and human genetics, virology and mechanisms of evolution. BIOL 1407: This course is a continuation of introductory Biology I for majors. It includes a detailed survey of the major phylogenetic lineages. This includes a comparison of the systems of different organisms. Ecological roles and relationships, as well as behavior of organisms, will be integrated throughout.

Career Cluster: Agriculture, Food, and Natural Resources

Program of Study: Animal Science

VETERINARY MEDICAL APPLICATIONS

WISD #: 7017000C

TIER 2

Grades: 11-12

1 Credit

Prerequisite: Principles of AFNR or Biology I; Equine Science, Small Animal Management

To be prepared for careers in the field of animal science, students need to attain academic skills and knowledge, acquire technical knowledge and skills related to animal systems and the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. *Elanco Veterinary Medical Applications Industry Based Certification available through this course.

Career Cluster: Agriculture, Food, and Natural Resources

Programs of Study: Animal Science, Environmental & Natural Resources, Plant Science

PRACTICUM IN AGRICULTURE, FOOD, AND NATURAL RESOURCES

WISD #: 7027000C

TIER 2

Grades: 12

2 Credit

Prerequisite: 12th grade only; Application; Completed approved advanced classes in one of the AFNR Pathways

The practicum is designed to give students supervised practical application of knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experiences such as employment, independent study, internships, assistantships, mentorships, or laboratories.

Career Cluster: Agriculture, Food, and Natural Resources

Program of Study: Plant Science

ADVANCED FLORAL DESIGN

WISD #: 7024000C

TIER 2

Grades: 10-12

1 Credit

Prerequisite: Floral Design

In this course, students build on the knowledge from the Floral Design course and are introduced to more advanced floral design concepts, with an emphasis on specialty designs and specific occasion planning. This course focuses on building skills in advanced floral design and providing students with a thorough understanding of the design elements and planning techniques used to produce unique specialty floral designs that support the goals and objectives of a specific occasion or event. Through the analysis and evaluation of various occasion and event types, students explore the design needs and expectations of clients and propose and evaluate appropriate creations. From conception to evaluation, students are challenged to create and design appropriate specialty floral designs that meet the needs of the client. Furthermore, an emphasis on budgetary adherence and entrepreneurship equips students with many of the necessary skills needed for success in floral enterprises.

To see complete Programs of Study for Architecture & Construction or the 4 year plans, click on the links below:

[Architectural Drafting & Design](#) [4 year plan](#)

[Carpentry](#) [4 year plan](#)

[Plumbing & Pipefitting](#) [4 year plan](#)

Level 1 Courses

Career Cluster: Architecture & Construction

Programs of Study: Architectural Drafting & Design, Carpentry, Plumbing & Pipefitting

PRINCIPLES OF CONSTRUCTION

WISD #: 7030000C TIER 2

Grades: 09-12 1 Credit

Prerequisite: \$30 shop fee required

Principles of Construction is intended to provide an introduction and lay a solid foundation for those students entering the construction or craft skilled areas. The course provides a strong knowledge of construction safety, construction mathematics, and common hand and power tools. (\$30 shop fee)

Career Cluster: Architecture & Construction

Program of Study: Plumbing & Pipefitting

INTRODUCTION TO WELDING

WISD #: 7060000C TIER 2

Grades: 09-12 1 Credit

Prerequisite:

Introduction to Welding will provide an introduction to welding technology with an emphasis on basic welding laboratory principles and operating procedures. Students will be introduced to the three basic welding processes. Topics include: industrial safety and health practices, hand tool and power machine use, measurement, laboratory operating procedures, welding power sources, welding career potentials, and introduction to welding codes and standards. Introduction to Welding will provide students with the knowledge, skills, and technologies required for employment in welding industries. Students will develop knowledge and skills related to welding and apply them to personal career development. This course supports integration of academic and technical knowledge and skills. Students will reinforce, apply, and transfer knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills will prepare students for future success.

Level 2 Courses

Career Cluster: Architecture & Construction

Program of Study: Architectural Drafting & Design

ARCHITECTURAL DESIGN I

WISD #: 7034000C TIER 2

Grades: 10-12 1 Credit

Prerequisite: Algebra I and English I

In Architectural Design I, students will gain knowledge and skills needed to enter a career in architecture or construction or prepare a foundation toward a postsecondary degree in architecture, construction science, drafting, interior design, or landscape architecture. Architectural Design I includes the knowledge of the design, design history, techniques, and

tools related to the production of drawings, renderings, and scaled models for nonresidential or residential architectural purposes.

Career Cluster: Architecture & Construction

Program of Study: Carpentry

CONSTRUCTION TECHNOLOGY I

WISD #: 7032000C **TIER 2**

Grades: 10-12 **2 Credit**

Prerequisite: Principle of Construction; \$30 shop fee required

Introduction: In Construction Technology, students gain knowledge and skills specific to those needed to enter the workforce as carpenters or building maintenance supervisors or prepare for a postsecondary degree in construction management, architecture, or engineering. (\$30 shop fee)

Career Cluster: Architecture & Construction

Program of Study: Plumbing & Pipefitting

PLUMBING TECHNOLOGY I

WISD #: 7411000C **TIER 2**

Grades: 09-12 **1 Credit**

Prerequisite:

In Plumbing Technology I, students will gain knowledge and skills needed to enter the industry as a plumbing apprentice, building maintenance technician, or supervisor or prepare for a postsecondary degree in construction management, architecture, or engineering. Students will acquire knowledge and skills in industry workplace basics and employer/customer expectations, including how to use a plumbing code book; how to identify and use power and hand tools; how to be safe on the jobsite and when using hand and power tools; how to apply basic plumbing mathematics and plumbing drawing; and how to identify, fit, and use plastic, copper, cast iron, carbon steel, and corrugated stainless steel pipe. In addition, students will be introduced to gas, drainage, and water supply systems and continue their knowledge of workplace basics and green technologies.

Level 3 Courses

Career Cluster: Architecture & Construction

Program of Study: Architectural Drafting & Design

ARCHITECTURAL DESIGN II

WISD #: 7039000C **TIER 2**

Grades: 11-12 **2 Credit**

Prerequisite: Architectural Design I

In Architectural Design II, students will gain advanced knowledge and skills needed to enter a career in architecture or construction to prepare a foundation toward a postsecondary degree in architecture, construction science, drafting, interior design, or landscape architecture. Architectural Design II includes the advanced knowledge of the design, design history, techniques, and tools related to the production of drawings, renderings, and scaled models for nonresidential or residential architectural purposes.

Career Cluster: Architecture & Construction

Program of Study: Carpentry

CONSTRUCTION TECHNOLOGY II

WISD #: 7033000C

TIER 2

Grades: 11-12

2 Credit

Prerequisite: Construction Technology I; \$30 shop fee required

Introduction in Advanced Construction Technology, students gain advanced knowledge and skills specific to those needed to enter the workforce as carpenters, building maintenance technicians, or supervisors or prepare for a postsecondary degree in construction management, architecture, or engineering. Students build on the knowledge base from Construction Technology and are introduced to exterior and interior finish out skills. (\$30 shop fee)

Career Cluster: Architecture & Construction

Program of Study: Plumbing & Pipefitting

PLUMBING TECHNOLOGY II

WISD #: 7412000C

TIER 2

Grades: 10-12

2 Credit

Prerequisite: Plumbing Technology I

In Plumbing Technology II, students will gain the advanced knowledge and skills needed to enter the industry as a plumber, building maintenance technician, or supervisor or prepare for a postsecondary degree in mechanical engineering. Students will acquire knowledge and skills in plumbing codes, industry workplace basics, and employer/customer expectations, including tool and jobsite safety, advanced plumbing mathematics, commercial drawings, basic electricity, hanger installation, supports and structural penetrations, roof drains, fixture installation, valves and faucets, and oxy-fuel safety. Students will also learn about setup, cutting, brazing and welding water system sizing; gas, drain, waste and vent installation and testing; and water heater installation.

Level 4 Courses

Career Cluster: Architecture & Construction

Program of Study: Architectural Drafting & Design

Practicum in Architectural Design

WISD #: 7043000C

TIER 2

Grades: 12

2 Credit

Prerequisite: Architectural Design II

Practicum in Architectural Design is an occupationally specific course designed to provide technical instruction in architectural design. Safety and career opportunities are included in addition to work ethics and architectural design study.

Career Cluster: Architecture & Construction

Programs of Study: Architectural Drafting & Design, Carpentry, Plumbing & Pipefitting

PRACTICUM IN CONSTRUCTION TECHNOLOGY

WISD #: 7029000C

TIER 2

Grades: 12

2 Credit

Prerequisite: Construction Technology II; \$30 shop fee required

In Practicum in Construction Technology, students will be challenged with the application of knowledge and skills gained in previous construction-related coursework. In many cases students will be allowed to work at a job (paid or unpaid) outside of school or be involved in local projects the school has approved for this class. (\$30 shop fee)

To see complete Programs of Study for Arts, A/V Technology & Communications or the 4 year plans, click on the links below:

[Digital Communications](#)

[4 year plan](#)

[Graphic Design & Interactive Media](#)

[4 year plan](#)

Level 1 Courses

Career Cluster: Arts, Audio Visual Technology and Communications

Programs of Study: Digital Communications, Graphic Design and Interactive Media

PRINCIPLES OF ARTS, AUDIO/VIDEO TECHNOLOGY, AND COMMUNICATIONS

WISD #: 7002000C

TIER 2

Grades: 09-12

1 Credit

Prerequisite:

This course develops communication skills in professional and social contexts. Students will create and evaluate formal and informal professional presentations using audio/visual technologies. Flash Drive storage device required for course – 2 GB Minimum.

Career Cluster: Arts, Audio Visual Technology and Communications

Program of Study: Graphic Design and Interactive Media

VIDEO GAME DESIGN

WISD #: 7074000C

TIER 2

Grades: 09-12

1 Credit

Prerequisite:

Video Game Design will allow students to explore one of the largest industries in the global marketplace and the new emerging careers it provides in the field of technology. Students will learn gaming, computerized gaming, evolution of gaming, artistic aspects of perspective, design, animation, technical concepts of collision theory, and programming logic. Students will participate in a simulation of a real video game design team while developing technical proficiency in constructing an original game design.

Level 2 Courses

Career Cluster: Arts, Audio Visual Technology and Communications

Program of Study: Graphic Design and Interactive Media

ANIMATION I

WISD #: 7311000C

TIER 2

Grades: 09-12

1 Credit

Prerequisite:

Careers in animation span all aspects of motion graphics. Within this context, in addition to developing technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an understanding of the history and techniques of the animation industry.

Career Cluster: Arts, Audio Visual Technology and Communications

Program of Study: Digital Communications

AUDIO/VIDEO PRODUCTION I

WISD #: 7005000C

TIER 2

Grades: 10-12

1 Credit

Prerequisite: Principle of Arts, A/V Technology and Communications

Careers in audio and video technology and film production span all aspects of the audio/video communications industry. Within this context, in addition to developing technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an understanding of the industry with a focus on pre-production, production, and post-production audio and video products. After school activity attendance required.

Career Cluster: Arts, Audio Visual Technology and Communications

Program of Study: Digital Communications

AUDIO/VIDEO PRODUCTION I/AUDIO/VIDEO PRODUCTION I LAB

WISD #: 700500PC

TIER 2

Grades: 10-12

2 Credit

Prerequisite: Principle of Arts, A/V Technology and Communications

A lab corequisite for the course affords necessary time devoted specifically to the production and post-production process. After school activity attendance required.

Career Cluster: Arts, Audio Visual Technology and Communications

Program of Study: Graphic Design and Interactive Media

COMMERCIAL PHOTOGRAPHY I

WISD #: 7007000C

TIER 2

Grades: 10-12

1 Credit

Prerequisite: Materials Required: DSLR (Digital Single Lens Reflex) Camera with manual and automatic settings, in regards to aperture, shutter speed, ISO, and; approved application. Must be in grades 10 - 12

Careers in commercial photography require skills that span all aspects of the industry from setting up a shot to delivering products in a competitive market. Within this context, in addition to developing knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications career cluster, students will be expected to develop an understanding of the commercial photography industry with a focus on creating quality photographs.

Career Cluster: Arts, Audio Visual Technology and Communications

Program of Study: Graphic Design and Interactive Media

COMMERCIAL PHOTOGRAPHY I/COMMERCIAL PHOTOGRAPHY I LAB

WISD #: 700700PC

TIER 2

Grades: 10-12

2 Credit

Prerequisite: Grades 10-12; approved application; Materials required: DSLR (Digital Single Lens Reflex) Camera with manual and automatic settings, in regards to aperture, shutter speed, and ISO

Careers in commercial photography require skills that span all aspects of the industry from setting up a shot to delivering products in a competitive market. In addition to developing knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an understanding of the commercial photography industry with a focus on creating quality photographs.

Career Cluster: Arts, Audio Visual Technology and Communications

Program of Study: Digital Communications

DIGITAL AUDIO TECHNOLOGY I

WISD #: 7001000C

TIER 2

Grades: 09-12

1 Credit

Prerequisite:

Digital Audio Technology I was designed to provide students interested in audio production careers such as audio for radio and television broadcasting, audio for video and film, audio for animation and game design, music production and live sound, and additional opportunities and skill sets. Digital Audio Technology I does not replace Audio Video Production courses but is recommended as a single credit, co-curricular course with an audio production technical emphasis. Students will be expected to develop an understanding of the audio industry with a technical emphasis on production and critical-listening skills.

Career Cluster: Arts, Audio Visual Technology and Communications

Program of Study: Graphic Design and Interactive Media

FASHION DESIGN I

WISD #: 7003000C

TIER 2

Grades: 10-12

1 Credit

Prerequisite: Principles of Arts, Audio/Video Technology and Communications

Students will develop skills necessary for a career in fashion, fashion design, fashion retail sales and management.

Option for double block, if taken along with Fashion Design I Lab.

Career Cluster: Arts, Audio Visual Technology and Communications

Program of Study: Graphic Design and Interactive Media

FASHION DESIGN I/FASHION DESIGN I LAB

WISD #: 700300PC

TIER 2

Grades: 10-12

2 Credit

Prerequisite: Principles of Arts, Audio/Video Technology and Communications

Careers in fashion span all aspects of the textile and apparel industries. Within this context, in addition to developing technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an understanding of the fashion industry with an emphasis on design and construction. Sewing and designing are a large part of this laboratory course.

Level 3 Courses

Career Cluster: Arts, Audio Visual Technology and Communications

Program of Study: Graphic Design and Interactive Media

ANIMATION II

WISD #: 7312000C

TIER 2

Grades: 09-12

1 Credit

Prerequisite: Animation I

Careers in animation span all aspects of motion graphics. Within this context, in addition to developing advanced knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to create two- and three-dimensional animations. The instruction also assists students seeking careers in the animation industry.

Career Cluster: Arts, Audio Visual Technology and Communications

Program of Study: Digital Communications

AUDIO/VIDEO PRODUCTION II

WISD #: 7006000C

TIER 2

Grades: 11-12

1 Credit

Prerequisite: Audio/Video Production I - grades 11-12

Careers in audio and video technology and film production span all aspects of the audio/video communications industry. Building upon the concepts taught in Audio/Video Production, in addition to developing advanced knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an advanced understanding of the industry with a focus on pre-production, production, and post-production products. This course may be implemented in an audio format or a format with both audio and video. After school activity attendance required.

Career Cluster: Arts, Audio Visual Technology and Communications

Program of Study: Digital Communications

AUDIO/VIDEO PRODUCTION II/AUDIO/VIDEO PRODUCTION II LAB

WISD #: 700600PC

TIER 2

Grades: 11-12

2 Credit

Prerequisite: Audio/Video Production I; approved application; grades 11-12

A lab corequisite for the course affords necessary time devoted specifically to the production and post-production process. After school activity attendance required.

Career Cluster: Arts, Audio Visual Technology and Communications

Program of Study: Graphic Design and Interactive Media

COMMERCIAL PHOTOGRAPHY II

WISD #: 7008000C

TIER 2

Grades: 10-12

1 Credit

Prerequisite: Commercial Photography I

Careers in commercial photography span all aspects of the industry from setting up a shot to delivering products in a competitive market. Within this context, in addition to developing advanced technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications career cluster, students will be expected to develop an advanced technical understanding of the commercial photography industry with a focus on producing, promoting, and presenting professional quality photographs.

Career Cluster: Arts, Audio Visual Technology and Communications

Program of Study: Graphic Design and Interactive Media

COMMERCIAL PHOTOGRAPHY II/COMMERCIAL PHOTOGRAPHY II LAB

WISD #: 700800PC

TIER 2

Grades: 10-12

2 Credit

Prerequisite: Commercial Photography I; approved application

Careers in commercial photography span all aspects of the industry from setting up a shot to delivering products in a competitive market. In addition to developing advanced technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an advanced technical understanding of the commercial photography industry with a focus on producing, promoting, and presenting professional quality photographs.

Career Cluster: Arts, Audio Visual Technology and Communications

Program of Study: Digital Communications

DIGITAL AUDIO TECHNOLOGY II

WISD #: 6999000C

TIER 2

Grades: 10-12

1 Credit

Prerequisite: Digital Audio Technology I

Digital Audio Technology II was designed to provide additional opportunities and skill sets for students interested in audio production careers such as audio for radio and television broadcasting, audio for video and film, audio for animation and game design, and music production and live sound. Digital Audio Technology II does not replace Audio Video Production courses but is recommended as a single credit, co-curricular course with an audio production technical emphasis. Students will be expected to develop an understanding of the audio industry with a technical emphasis on production and critical-listening skills.

Career Cluster: Arts, Audio Visual Technology and Communications

Program of Study: Graphic Design and Interactive Media

FASHION DESIGN II

WISD #: 7004000C

TIER 2

Grades: 11-12

1 Credit

Prerequisite: Fashion Design I

Students will be expected to develop an advanced understanding of fashion, with emphasis on design and production. Students will develop complex skills necessary for a career in fashion, fashion design, fashion retail sales and management. Option for double block, if taken along with Fashion Design II Lab.

Career Cluster: Arts, Audio Visual Technology and Communications

Program of Study: Graphic Design and Interactive Media

FASHION DESIGN II/FASHION DESIGN II LAB

WISD #: 700400PC

TIER 2

Grades: 11-12

2 Credit

Prerequisite: Fashion Design I

Students will be expected to develop an advanced understanding of fashion, with emphasis on design and production. Students will develop complex skills necessary for a career in fashion, fashion design, fashion retail sales and management. Sewing and designing are a large part of this laboratory course.

Level 4 Courses

Career Cluster: Arts, Audio Visual Technology and Communications

Program of Study: Graphic Design and Interactive Media

PRACTICUM IN ANIMATION

WISD #: 7313000C

TIER 2

Grades: 11-12

2 Credit

Prerequisite: Animation II

Careers in animation span all aspects of the arts, audio/video technology, and communications industry. Building upon the concepts taught in Animation II, in addition to developing advanced technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an increasing understanding of the industry with a focus on applying pre-production, production, and post-production animation products in a professional environment. Instruction may be delivered through lab-based classroom experiences or career preparation opportunities.

Career Cluster: Arts, Audio Visual Technology and Communications

Program of Study: Graphic Design and Interactive Media

PRACTICUM IN FASHION DESIGN

WISD #: 7206000C

TIER 2

Grades: 11-12

2 Credit

Prerequisite: Fashion Design II

Careers in fashion span all aspects of the textile and apparel industries. Within this context, in addition to developing advanced technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an advanced technical understanding of the business aspects of fashion, with emphasis on promotion and retailing. Instruction may be delivered through lab-based classroom experiences or career preparation opportunities.

Career Cluster: Arts, Audio Visual Technology and Communications

Program of Study: Digital Communications

PRACTICUM IN AUDIO/VIDEO PRODUCTION

WISD #: 7038000C

TIER 2

Grades: 12

2 Credit

Prerequisite: Audio/Video Production II

Careers in audio/video production span all aspects of the audio/video communications industry. Building upon the concepts taught in Audio/Video Production II and its corequisite Audio/Video Production II Lab, in addition to developing advanced technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an increasing understanding of the industry with a focus on applying pre-production, production, and post-production audio and video products in a professional environment. This course may be implemented in an advanced audio/video or audio format. Instruction may be delivered through lab-based classroom experiences or career preparation opportunities.

Career Cluster: Arts, Audio Visual Technology and Communications

Program of Study: Graphic Design and Interactive Media

PRACTICUM IN COMMERCIAL PHOTOGRAPHY

WISD #: 7330000C

TIER 2

Grades: 10-12

2 Credit

Prerequisite: Commercial Photography II

Careers in commercial photography span all aspects of the industry from setting up a shot to delivering products in a competitive market. In addition to developing advanced technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an advanced technical understanding of the commercial photography industry with a focus on producing, promoting, and presenting professional quality photographs.

To see complete Programs of Study for Business, Marketing & Finance or the 4 year plans, click on the links below:

[Accounting & Financial Services](#) [4 year plan](#)

[Business Management](#) [4 year plan](#)

[Marketing & Sales](#) [4 year plan](#)

Level 1 Courses

Career Cluster: Business, Marketing & Finance

Programs of Study: Accounting & Financial Services, Business Management, Marketing & Sales

PRINCIPLES OF BUSINESS, MARKETING, AND FINANCE

WISD #: 7081000C

TIER 2

Grades: 09-11

1 Credit

Prerequisite:

Students gain knowledge and skills in economies and private enterprise systems, the impact of global business, the marketing of goods and services, advertising, and product pricing. Students analyze the sales process and financial management principles. This course allows students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings in business, marketing, and finance.

Career Cluster: Business, Marketing & Finance

Programs of Study: Accounting & Financial Services, Business Management

BUSINESS INFORMATION MANAGEMENT I

WISD #: 7082000C

TIER 2

Grades: 09-12

1 Credit

Prerequisite:

Curriculum focuses on word processing, spreadsheets, databases, desktop publishing, presentation management, and emerging technologies. A 4GB minimum USB (flash drive) is required for this course to be left with the teacher.

Level 2 Courses

Career Cluster: Business, Marketing & Finance

Program of Study: Accounting & Financial Services

ACCOUNTING I

WISD #: 7092000C

TIER 2

Grades: 10-12

1 Credit

Prerequisite:

Students investigate the field of accounting, including how it is impacted by industry standards as well as economic, financial, technological, international, social, legal, and ethical factors. Students reflect on this knowledge as they engage in the process of recording, classifying, summarizing, analyzing, and communicating accounting information.

Career Cluster: Business, Marketing & Finance

Programs of Study: Accounting & Financial Services, Business Management, Marketing & Sales

ENTREPRENEURSHIP I

WISD #: 7087000C

TIER 2

Grades: 10-12

1 Credit

Prerequisite: Principles of Business, Marketing, and Finance

Students will gain knowledge and skills needed to become an entrepreneur. They will learn the principles necessary to begin and operate a business. Primary focus is to help students analyze a business opportunity and determine goods and services to sell for profit. A 4G flash drive is required and a \$25 DECA fee.

Career Cluster: Business, Marketing & Finance

Program of Study: Business Management

BUSINESS INFORMATION MANAGEMENT II

WISD #: 7085000C

TIER 2

Grades: 09-12

1 Credit

Prerequisite: Business Information Management I

Curriculum focuses on workplace technology standards with Advanced applications of word processing, spreadsheets, databases, desktop publishing, presentation management, operating systems, and emerging technologies. A 4GB minimum USB Drive is required for this course to be left with the teacher. This course assists students in preparing for Microsoft Application Specialist Certification.

Career Cluster: Business, Marketing & Finance

Program of Study: Marketing & Sales

SPORTS AND ENTERTAINMENT MARKETING

WISD #: 7090000C

TIER 2

Grades: 10-12

.5 Credit

Prerequisite: Principles of Business, Marketing, and Finance

This course will provide students with a thorough understanding of the marketing concepts and theories that apply to sports and sporting events and entertainment. Areas covered include basic marketing, target marketing and segmentation, sponsorship, event marketing, promotions, sponsorship proposals. DECA Membership encouraged. \$25 membership fee

Level 3 Courses

Career Cluster: Business, Marketing & Finance

Program of Study: Accounting & Financial Services

ACCOUNTING II

WISD #: 7093000C

TIER 2

Grades: 11-12

1 Credit

Prerequisite: Accounting I

Students continue the investigation of the field of accounting, including how it is impacted by industry standards as well as economic, financial, technological, international, social, legal, and ethical factors. Students reflect on this knowledge as they engage in various managerial and cost accounting activities.

Career Cluster: Business, Marketing & Finance

Program of Study: Business Management

BUSINESS MANAGEMENT

WISD #: 7086000C

TIER 2

Grades: 10-12

1 Credit

Prerequisite:

Students recognize, evaluate, and prepare for a rapidly evolving global business environment that requires flexibility and adaptability. Students analyze the primary functions of management and leadership, which are planning, organizing, staffing, directing or leading, and controlling. Topics will incorporate social responsibility of business and industry.

Career Cluster: Business, Marketing & Finance

Program of Study: Marketing & Sales

FUNDAMENTALS OF REAL ESTATE

WISD #: 7098000C

TIER 2

Grades: 11-12

2 Credit

Prerequisite: \$475 course fee (Juniors pay half, then pay 2nd half Senior year)

In Fundamentals of Real Estate, students gain knowledge and skills in general principles of real estate, the law of agency, the law of contracts, use of promulgated forms and real estate finance. Students analyze the elements of a real estate transaction, including representation, financing, title, closing and deeds. This course allows students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant principles of real estate. (\$475 Course fee). Additional fees to obtain a State license.

Career Cluster: Business, Marketing & Finance

Program of Study: Marketing & Sales

SOCIAL MEDIA MARKETING

WISD #: 7204000C

TIER 2

Grades: 12

.5 Credit

Prerequisite: Principles of Business, Marketing and Finance

Social Media Marketing is designed to look at the rise of social media and how marketers are integrating social media tools in their overall marketing strategy. The course will investigate how the marketing community measures success in the new world of social media. Students will manage a successful social media presence for an organization, understand techniques for gaining customer and consumer buy-in to achieve marketing goals, and properly select social media platforms to engage consumers and monitor and measure the results of these efforts. Can obtain Industry-Based Certification through Stukent. DECA Membership encouraged. \$25 membership fee

Level 4 Courses

Career Cluster: Business, Marketing & Finance

Program of Study: Accounting & Financial Services, Business Management

PRACTICUM IN BUSINESS MANAGEMENT

WISD #: 7087000C

TIER 2

Grades: 11-12

2 Credit

Prerequisite: 2 or more credits in BMF

Practicum in Business Management is designed to give students supervised practical application of previously studied knowledge and skills. Practicum experiences occur in a paid or unpaid arrangement made by the student and a variety of locations appropriate to the nature and level of experience. Students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and to make a successful transition to the workforce or postsecondary education. Students apply technical skills to address business applications of emerging technologies. Students develop a foundation in the economic, financial, technological, international, social, and ethical aspects of business to become competent consumers, employees, and entrepreneurs. Students enhance reading, writing, computing, communication, and reasoning skills and apply them to the business environment. Students incorporate a broad base of knowledge that includes the legal, managerial, marketing, financial, ethical, and international dimensions of business to make appropriate business decisions.

Career Cluster: Business, Marketing & Finance

Program of Study: Marketing & Sales

PRACTICUM IN MARKETING

WISD #: 7091000C

TIER 2

Grades: 12

2 Credit

Prerequisite: Fundamentals of Real Estate; Fee - \$475 (half paid their junior year)

Practicum in Marketing is a series of dynamic activities that focus on the customer to generate a profitable exchange. Students will gain knowledge and skills that help them to be proficient in one or more of the marketing functional areas associated with distribution, financing, marketing information management, pricing, product planning, promotion, purchasing, risk management, and selling skills. Students will integrate skills from academic subjects, information technology, interpersonal communication, and management training to make responsible decisions. The practicum course is a paid or unpaid experience for students participating in a coherent sequence of career and technical courses in marketing. Students will complete the Real Estate program they started in Fundamentals of Real Estate.

To see complete Programs of Study for Education & Training or the 4 year plans, click on the links below:

[Early Learning](#) [4 year plan](#)
[Teaching & Training](#) [4 year plan](#)

Level 1 Courses

Career Cluster: Education & Training

Programs of Study: Teaching & Training, Early Learning

PRINCIPLES OF EDUCATION AND TRAINING

WISD #: 7131000C TIER 2

Grades: 09-12 1 Credit

Prerequisite:

Principles of Education and Training is designed to introduce learners to the various careers within the Education and Training Career Cluster. Students use self-knowledge as well as educational and career information to analyze various careers within education and training; as well societal influences on education, the various school models and the roles and responsibilities of classroom educators. In this course, students will have an opportunity to discover their interest areas in potential education careers and develop a graduation plan that helps them move toward that goal.

Level 2 Courses

Career Cluster: Education & Training

Programs of Study: Teaching & Training, Early Learning

CHILD DEVELOPMENT

WISD #: 7112000C TIER 2

Grades: 10-12 1 Credit

Prerequisite: Principles of Human Services or Principles of Health Science

Students will explore a child's growth and development from prenatal through school-age, and equip students with child development skills. Students use these skills to promote the well-being and healthy development of children and investigate careers related to the care and education of children.

Level 3 Courses

Career Cluster: Education & Training

Program of Study: Early Learning

CHILD GUIDANCE

WISD #: 7112000C TIER 2

Grades: 11-12 2 Credit

Prerequisite: Child Development

Students will apply skills related to children's growth and guidance; equip students to develop positive relationships with children and build caregiver skills by working under the joint direction and supervision of both their high school teacher and an exemplary early learning educator. Students use these skills to promote the well-being and healthy development of children, and pursue careers related to the care, guidance, and education of children, including those with special needs.

Career Cluster: Education & Training
Program of Study: Teaching & Training
INSTRUCTIONAL PRACTICES

WISD #: 7132000C **TIER 2**
Grades: 10-12 **2 Credit**

Prerequisite: Principles of Education and Training and Human Growth and Development. Must have their own transportation to and from the internship site.

Students will be active in a field-based internship. Students work under the joint direction of both an early childhood education teacher and exemplary educators in direct instructional roles with elementary, middle school, and high school- aged students. Students learn to plan and direct individualized instruction and group activities, prepare instructional materials and develop materials for a variety of educational environments.

Level 4 Courses

Career Cluster: Education & Training
Program of Study: Teaching & Training
PRACTICUM IN EDUCATION AND TRAINING

WISD #: 7134000C **TIER 2**
Grades: 09-12 **2 Credit**

Prerequisite: Instructional Practices

Practicum in Education and Training is a field-based internship that provides students background knowledge of child and adolescent development principles as well as principles of effective teaching and training practices. Students in the course work under the joint direction and supervision of both a teacher with knowledge of early childhood, middle childhood, and adolescence education and exemplary educators in direct instructional roles with elementary-, middle school-, and high school-aged students. Students learn to plan and direct individualized instruction and group activities, prepare instructional materials, assist with record keeping, make physical arrangements, and complete other responsibilities of classroom teachers, trainers, paraprofessionals, or other educational personnel.

Career Cluster: Education & Training
Program of Study: Early Learning
PRACTICUM IN EARLY LEARNING

WISD #: 7113000C **TIER 2**
Grades: 12 **2 Credit**

Prerequisite: Child Guidance

Practicum in Early Learning is a field-based internship that provides students background knowledge of child and adolescent Development principals as well as principles of effective teaching and training practices. Students in the course work under the Joint direction and supervision of both a teacher with knowledge of early childhood and exemplary education in direct Instructional roles with early childhood students. Students learn to plan and direct individualized instruction and group Activities, prepare instructional materials, assist with record keeping, make physical arrangements, and complete other Responsibilities of classroom teachers, trainers, paraprofessionals, or other educational personnel.

To see the complete Program of Study for Engineering Foundations or the 4 year plan, click on the links below:

[Engineering Foundations](#)

[4 year plan](#)

Level 1 Courses

Career Cluster: Engineering

Program of Study: Engineering Foundations

PRINCIPLES OF APPLIED ENGINEERING

WISD #: 7069000C

TIER 2

Grades: 09-12

1 Credit

Prerequisite:

Principles of Applied Engineering provides an overview of the various fields of science, technology, engineering, and mathematics and their interrelationships. Students will develop engineering communication skills, which include computer graphics, modeling, and presentations, by using a variety of computer hardware and software applications to complete assignments and projects. Upon completing this course, students will have an understanding of the various fields of engineering and will be able to make informed career decisions. Further, students will have worked on a design team to develop a product or system. Students will use multiple software applications to prepare and present course assignments.

Level 2 Courses

Career Cluster: Engineering

Program of Study: Engineering Foundations

ROBOTICS I

WISD #: 7073000C

TIER 2

Grades: 09-12

1 Credit

Prerequisite:

Students will gain knowledge and skills necessary for the robotic and automation industry. Through implementation of the design process, students will transfer advanced academic skills into a project-based environment.

Level 3 Courses

Career Cluster: Engineering

Program of Study: Engineering Foundations

ENGINEERING DESIGN AND PRESENTATION I

WISD #: 7071000C

TIER 2

Grades: 10-12

1 Credit

Prerequisite: Algebra I

Students will use a variety of software applications to produce and present engineering drawings, solid model renderings, and prototypes. Through implementation of the design process, students will transfer advanced academic skills to component designs. Engineering Design is a rigorous, upper level course designed for students with a strong mathematics background and interest.

Career Cluster: Engineering

Program of Study: Engineering Foundations

ROBOTICS II

WISD #: 7075000C

TIER 2

Grades: 10-12

1 Credit

Prerequisite: Robotics I

In Robotics II, students will explore artificial intelligence and programming in the robotic and automation industry. Through implementation of the design process, students will transfer academic skills to component designs in a project-based environment. Students will build prototypes and use software to test their designs.

Level 4 Courses

Career Cluster: Engineering

Program of Study: Engineering Foundations

ENGINEERING DESIGN AND PRESENTATION II

WISD #: 7070000C

TIER 2

Grades: 11-12

2 Credit

Prerequisite: Engineering Design and Presentation I

This course will provide students the opportunity to master computer software applications in a variety of engineering and technical fields. This course further develops the process of engineering thought and application of the design process.

Career Cluster: Engineering

Program of Study: Engineering Foundations

BIOLOGY DUAL CREDIT (SCIENTIFIC RESEARCH & DESIGN)

WISD #: 63110D0C

TIER 1

Grades: 11-12

1 Credit

Prerequisite: Biology, Chemistry; qualifying TSI scores in ELA and Math

BIOL 1406: A contemporary course including applications of the scientific method, cellular and molecular biology, biochemistry, classical and human genetics, virology and mechanisms of evolution. BIOL 1407: This course is a continuation of introductory Biology I for majors. It includes a detailed survey of the major phylogenetic lineages. This includes a comparison of the systems of different organisms. Ecological roles and relationships, as well as behavior of organisms, will be integrated throughout.

To see the complete Program of Study for Diagnostic and Therapeutic Services or the 4 year plan, click on the links below:

[Diagnostic and Therapeutic Services](#)

[4 year plan](#)

Level 1 Courses

Career Cluster: Health Science

Program of Study: Diagnostic & Therapeutic Services

PRINCIPLES OF HEALTH SCIENCE

WISD #: 7101000C TIER 2

Grades: 10 1 Credit

Prerequisite: Must be in 10th grade

Course designed to develop health care specific knowledge and skills in effective communications, ethical and legal responsibilities, client care, safety, and first aid. Curriculum prepares students for the transition to clinical or work based experience in health care and meets National Health Care Standards.

Level 2 Courses

Career Cluster: Health Science

Program of Study: Diagnostic & Therapeutic Services

MEDICAL TERMINOLOGY

WISD #: 7109000C TIER 2

Grades: 9-12 1 Credit

Prerequisite: Recommended to have completed Biology and Principles of Health Science

The Medical Terminology course is designed to introduce students to the structure of medical terms, including prefixes, suffixes, word roots, singular and plural forms, and medical abbreviations. The course allows students to achieve comprehension of medical vocabulary appropriate to medical procedures, human anatomy and physiology, and pathophysiology.

Level 3 Courses

Career Cluster: Health Science

Program of Study: Diagnostic & Therapeutic Services

ANATOMY AND PHYSIOLOGY

WISD #: 7106000C TIER 2

Grades: 11-12 1 Credit

Prerequisite: Biology and 2nd Science Credit

Students conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Students in Anatomy and Physiology study a variety of topics, including the structure and function of the human body and the interaction of body systems for maintaining homeostasis.

Career Cluster: Health Science

Program of Study: Diagnostic & Therapeutic Services

ANATOMY AND PHYSIOLOGY DUAL CREDIT

WISD #: 71060D0C TIER 1

Grades: 11-12 1 Credit

Prerequisite: Biology, Chemistry; qualifying TSI scores in ELA and Math

BIOL 2401 & BIOL 2403: A study of the structure and function of the human body. Emphasis will be given to the study of cells and tissues and anatomical and physiological interrelationships of the integumentary, skeletal, muscular, and nervous systems. Designated primarily for students entering health careers.

Career Cluster: Health Science

Program of Study: Diagnostic & Therapeutic Services

HEALTH SCIENCE THEORY

WISD #: 7100000C TIER 2

Grades: 11-12 1 Credit

Prerequisite: Biology and Principles of Health Science

The Health Science Theory course is designed to provide for the development of advanced knowledge and skills related to a wide variety of health careers. Students will employ hands-on experiences for continued knowledge and skill development.

Career Cluster: Health Science

Program of Study: Diagnostic & Therapeutic Services

HEALTH SCIENCE THEORY/HEALTH SCIENCE CLINICAL

WISD #: 7102000C TIER 2

Grades: 11-12 2 Credit

Prerequisite: Principles of Health Science

The Health Science Theory course is designed to provide for the development of advanced knowledge and skills related to a wide variety of health careers. Students will employ hands-on experiences for continued knowledge and skill development. Students will learn the roles of the medical workplace. Students will be off campus for clinical rotations for part of this class.

Level 4 Courses

Career Cluster: Health Science

Program of Study: Diagnostic & Therapeutic Services

PHARMACOLOGY

WISD #: 7107000C TIER 2

Grades: 11-12 1 Credit

Prerequisite: Biology & Chemistry; Principles of Health Science; 11th or 12th grade

The Pharmacology course is designed to study how natural and synthetic chemical agents such as drugs affect biological systems. Knowledge of the properties of therapeutic agents is vital in providing quality health care. It is an ever changing, growing body of information that continually demands greater amounts of time and education from health care workers. This is the class to take during the junior year for those considering going into Pharmacy Tech.

Career Cluster: Health Science

Program of Study: Diagnostic & Therapeutic Services

PRACTICUM IN HEALTH SCIENCE (CNA)

WISD #: 7105CNAC TIER 2

Grades: 12 2 Credit

Prerequisite: Health Science Theory/Clinical

The Practicum in Health Science course is designed to give students practical application of previously studied knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience. Students in the CNA Practicum prepare for careers as entry level nursing assistants. Students will prepare for the NACES certification exam. Students will be off campus for clinical rotations for part of this class.

Career Cluster: Health Science

Program of Study: Diagnostic & Therapeutic Services

PRACTICUM IN HEALTH SCIENCE (Pharmacy Technician)

WISD #: 7105PHRC TIER 2

Grades: 12 2 Credit

Prerequisite: Health Science Theory/Health Science Clinical; \$295 for State Exams and fingerprinting required

Course is designed for students to gain knowledge required to take the PTCB exam and become a pharmacy tech. Students will need to fill out an application in order to be considered for this class and must have transportation. Students will also need \$295 for their State Exams and fingerprinting.

Career Cluster: Health Science

Program of Study: Diagnostic & Therapeutic Services

PRACTICUM IN HEALTH SCIENCE (CCMA)

WISD #: 7105MASC TIER 2

Grades: 12 2 Credit

Prerequisite: Health Science Theory/Clinical

The Practicum in Health Science course is designed to give students practical application of previously studied knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience. Students in the CCMA Practicum prepare for careers as entry level medical assistants. Students will prepare for the Certified Clinical Medical Assistant certification exam. Students will be off campus for clinical rotations for part of this class.

Career Cluster: Health Science

Program of Study: Diagnostic & Therapeutic Services

PRACTICUM IN HEALTH SCIENCE (EMT)

WISD #: 7105EMTC TIER 2

Grades: 12 2 Credit

Prerequisite: Health Science Theory/Health Science Clinical

The Practicum in Health Science course is designed to give students practical application of previously studied knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience. Students in the EMT Practicum prepare for careers as EMTs. Students will prepare for the national examination conducted by the National Registry of Emergency Medical Technicians.

To see the complete Program of Study for Culinary Arts or the 4 year plan, click on the links below:

[Culinary Arts](#)

[4 year plan](#)

Level 1 Courses

Career Cluster: Hospitality & Tourism

Program of Study: Culinary Arts

INTRODUCTION TO CULINARY ARTS

WISD #: 7052000C

TIER 2

Grades: 09-12

1 Credit

Prerequisite:

Introduction to Culinary Arts will emphasize the principles of planning, organizing, staffing, directing, and controlling the management of a variety of food service operations. The course will provide insight into the operation of a well-run restaurant. Introduction to Culinary Arts will provide insight into food production skills, various levels of industry management, and hospitality skills. This is an entry level course for students interested in pursuing a career in the food service industry. This course is offered as a classroom and laboratory-based course.

Level 2 Courses

Career Cluster: Hospitality & Tourism

Program of Study: Culinary Arts

CULINARY ARTS

WISD #: 7051000C

TIER 2

Grades: 10-12

2 Credit

Prerequisite: Recommended: Introduction to Culinary Arts or Principles of Hospitality and Tourism; \$40 lab fee plus students must purchase a chef hat/coat/apron

Culinary Arts begins with the fundamentals and principles of the art of cooking and the science of baking and includes management and production skills and techniques. Students can pursue a national sanitation certification or other appropriate industry certifications. This course is offered as a laboratory-based course. \$40 lab fee plus students must purchase a chef hat/coat/apron.

Level 3 Courses

Career Cluster: Hospitality & Tourism

Program of Study: Culinary Arts

ADVANCED CULINARY ARTS

WISD #: 7053000C

TIER 2

Grades: 11-12

2 Credit

Prerequisite: Culinary Arts; \$40 lab fee plus students must purchase a chef hat/coat/apron

Advanced Culinary Arts will extend content and enhance skills introduced in Culinary Arts by in-depth instruction of industry-driven standards in order to prepare students for success in higher education, certifications, and/or immediate employment. \$40 lab fee plus students must purchase a chef hat/coat/apron.

Level 4 Courses

Career Cluster: Hospitality & Tourism

Program of Study: Culinary Arts

PRACTICUM IN CULINARY ARTS

WISD #: 7055000C

TIER 2

Grades: 12

2 Credit

Prerequisite: Advanced Culinary Art

Practicum in Culinary Arts is a unique practicum that provides occupationally specific opportunities for students to participate in a learning experience that combines classroom instruction with actual business and industry career experiences. Practicum in Culinary Arts integrates academic and career and technical education; provides more interdisciplinary instruction; and supports strong partnerships among schools, businesses, and community institutions with the goal of preparing students with a variety of skills in a fast-changing workplace.

To see the complete Program of Study for Cosmetology or the 4 year plan, click on the links below:

[Cosmetology & Personal Care Services](#)

[4 year plan](#)

Level 1 Courses

Career Cluster: Human Services

Program of Study: Cosmetology & Personal Care Services

PRINCIPLES OF COSMETOLOGY DESIGN AND COLOR THEORY

WISD #: 7163000C

TIER 2

Grades: 09

1 Credit

Prerequisite:

In Principles of Cosmetology Design and Color Theory, students coordinate integration of academic, career, and technical knowledge and skills in this laboratory instructional sequence course designed to provide job-specific training for employment in cosmetology careers. Students will attain academic skills and knowledge as well as technical knowledge and skills related to cosmetology design and color theory. Students will develop knowledge and skills regarding various cosmetology design elements such as form, lines, texture, structure and illusion or depth as they relate to the art of cosmetology. Instruction includes sterilization and sanitation procedures, hair care, nail care, and skin care and meets the TDLR requirements for licensure upon passing the state examination. Analysis of career opportunities, license requirements, knowledge and skills expectations, and development of workplace skills are included.

Level 2 Courses

Career Cluster: Human Services

Program of Study: Cosmetology & Personal Care Services

INTRODUCTION TO COSMETOLOGY

WISD #: 7160000C TIER 2

Grades: 10 1 Credit

Prerequisite:

In Introduction to Cosmetology, students explore careers in the cosmetology industry. To prepare for success, students must have academic and technical knowledge and skills relative to the industry. Students may begin to earn hours toward State licensing requirements.

Level 3 Courses

Career Cluster: Human Services

Program of Study: Cosmetology & Personal Care Services

COSMETOLOGY I

WISD #: 7161000C TIER 2

Grades: 11 2 Credit

Prerequisite: Recommended: Introduction to Cosmetology; \$25 license fee; \$525 Lab kit fee

In Cosmetology I, students coordinate integration of academic, career, and technical knowledge and skills in this laboratory instructional sequence course designed 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 Texas Department of Licensing and Regulation (TDLR) requirements for licensure upon passing the state examination. Analysis of career opportunities, license requirements, knowledge and skills expectations, and development of workplace skills are included. \$25 license fee; \$525 Lab Kit fee.

Career Cluster: Human Services

Program of Study: Cosmetology & Personal Care Services

COSMETOLOGY I/COSMETOLOGY I LAB

WISD #: 716100PC TIER 2

Grades: 11 3 Credit

Prerequisite: Recommended: Introduction to Cosmetology; \$25 license fee; \$525 Lab kit fee

In Cosmetology I, students coordinate integration of academic, career, and technical knowledge and skills in this laboratory instructional sequence course designed 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 Texas Department of Licensing and Regulation (TDLR) requirements for licensure upon passing the state examination. Analysis of career opportunities, license requirements, knowledge and skills expectations, and development of workplace skills are included. \$25 license fee; \$525 Lab Kit fee.

Level 4 Courses

Career Cluster: Human Services

Program of Study: Cosmetology & Personal Care Services

COSMETOLOGY II

WISD #: 7162000C

TIER 2

Grades: 12

2 Credit

Prerequisite: Cosmetology I; \$325 Lab kit fee

In Cosmetology II, students will demonstrate proficiency in academic, technical, and practical knowledge and skills. The content is designed to provide the occupational skills required for licensure. Instruction includes advanced training in professional standards/employability skills; Texas Department of Licensing and Regulation (TDLR) rules and regulations; use of tools, equipment, technologies and materials; and practical skills. \$325 Lab Kit Fee.

Career Cluster: Human Services

Program of Study: Cosmetology & Personal Care Services

COSMETOLOGY II/COSMETOLOGY II LAB

WISD #: 716200PC

TIER 2

Grades: 11-12

3 Credit

Prerequisite: Cosmetology I; \$325 Lab kit fee

In Cosmetology II, students will demonstrate proficiency in academic, technical, and practical knowledge and skills. The content is designed to provide the occupational skills required for licensure. Instruction includes advanced training in professional standards/employability skills; Texas Department of Licensing and Regulation (TDLR) rules and regulations; use of tools, equipment, technologies and materials; and practical skills. \$325 Lab Kit Fee.

To see complete Programs of Study for Information Technology or the 4 year plans, click on the links below:

[Cybersecurity](#)

[Programming & Software Development](#)

[4 year plan](#)

[4 year plan](#)

Level 1 Courses

Career Cluster: Information Technology

Program of Study: Cybersecurity

FOUNDATIONS OF CYBERSECURITY

WISD #: 7300000C

TIER 2

Grades: 09-12

1 Credit

Prerequisite:

In the Foundations of Cybersecurity course, students will develop the knowledge and skills needed to explore fundamental concepts related to the ethics, laws, and operations of cybersecurity. Students will examine trends and operations of cyberattacks, threats, and vulnerabilities. Students will review and explore security policies designed to mitigate risks. The skills obtained in this course prepare students for additional study in cybersecurity. A variety of courses are available to students interested in this field. Foundations of Cybersecurity may serve as an introductory course in this field of study.

Career Cluster: Information Technology

Programs of Study: Cybersecurity, Programming & Software Development

FUNDAMENTALS OF COMPUTER SCIENCE

WISD #: 7199000C

TIER 2

Grades: 09-10

1 Credit

Prerequisite:

Fundamentals of Computer Science is intended as a first course for those students just beginning the study of computer science. Students will learn about the computing tools that are used every day. Students will foster their creativity and innovation through opportunities to design, implement, and present solutions to real-world problems. Students will collaborate and use computer science concepts to access, analyze, and evaluate information needed to solve problems. Students will learn the problem-solving and reasoning skills that are the foundation of computer science. By using computer science knowledge and skills that support the work of individuals and groups in solving problems, students will select the technology appropriate for the task, synthesize knowledge, create solutions, and evaluate the results. Students will learn digital citizenship by researching current laws and regulations and by practicing integrity and respect. Students will gain an understanding of the principles of computer science through the study of technology operations and concepts.

Level 2 Courses

Career Cluster: Information Technology

Programs of Study: Cybersecurity, Programming & Software Development

COMPUTER SCIENCE I

WISD #: 7200000C

TIER 2

Grades: 09-12

1 Credit

Prerequisite: Algebra I

Computer Science I will foster students' creativity and innovation by presenting opportunities to design, implement, and present meaningful programs through a variety of media. Students will collaborate with one another, their instructor, and various electronic communities to solve the problems presented throughout the course. Through data analysis, students will identify task requirements, plan search strategies, and use computer science concepts to access, analyze, and evaluate information needed to solve problems. By using computer science knowledge and skills that support the work of individuals and groups in solving problems, students will select the technology appropriate for the task, synthesize knowledge, create solutions, and evaluate the results. Students will learn digital citizenship by researching current laws and regulations and by practicing integrity and respect. Students will gain an understanding of the principles of computer science through the study of technology operations, systems, and concepts.

Career Cluster: Information Technology

Programs of Study: Cybersecurity, Programming & Software Development

AP COMPUTER SCIENCE PRINCIPLES

WISD #: 72110A0C

TIER 1

Grades: 09-12

1 Credit

Prerequisite: Algebra I

AP Computer Science Principles introduces students to the breadth of the field of computer science. In this course, students will learn to design and evaluate solutions and to apply computer science to solve problems through the development of algorithms and programs. They will incorporate abstraction into programs and use data to discover new knowledge. Students will also explain how computing innovations and computing systems, including the Internet, work, explore their potential impacts, and contribute to a computing culture that is collaborative and ethical.

Career Cluster: Information Technology

Programs of Study: Cybersecurity

COMPUTER MAINTENANCE

WISD #: 7042000C TIER 2

Grades: 10-12 1 Credit

Prerequisite: Any credit from Level I

This course provides an excellent introduction to the IT industry and interactive exposure to personal computers, hardware, and operating systems. Students participate in hands-on activities and lab based learning to become familiar with various hardware and software components and discover best practices in maintenance and safety. This course prepares students to take the COMPTIA A+ Certification.

Level 3 Courses

Career Cluster: Information Technology

Program of Study: Cybersecurity

NETWORKING

WISD #: 7048000C TIER 2

Grades: 09-12 1 Credit

Prerequisite: Computer Maintenance

In Networking, students will develop knowledge of the concepts and skills related to data networking technologies and practices in order to apply them to personal or career development. To prepare for success, students will have opportunities to reinforce, apply, and transfer knowledge and skills to a variety of settings and problems.

Career Cluster: Information Technology

Program of Study: Programming & Software Development

COMPUTER SCIENCE II

WISD #: 7203000C TIER 2

Grades: 10-12 1 Credit

Prerequisite: Algebra I and Computer Science I

Computer Science II will foster students' creativity and innovation by presenting opportunities to design, implement, and present meaningful programs through a variety of media. Students will collaborate with one another, their instructor, and various electronic communities to solve the problems presented throughout the course. Through data analysis, students will identify task requirements, plan search strategies, and use computer science concepts to access, analyze, and evaluate information needed to solve problems. By using computer science knowledge and skills that support the work of individuals and groups in solving problems, students will select the technology appropriate for the task, synthesize knowledge, create solutions, and evaluate the results. Students will learn digital citizenship by researching current laws and regulations and by practicing integrity and respect. Students will gain an understanding of computer science through the study of technology operations, systems, and concepts.

Level 4 Courses

Career Cluster: Information Technology

Program of Study: Programming & Software Development

BIOLOGY DUAL CREDIT (SCIENTIFIC RESEARCH & DESIGN)

WISD #: 63110D0C TIER 1

Grades: 11-12 1 Credit

Prerequisite: Biology, Chemistry; qualifying TSI scores in ELA and Math

BIOL 1406: A contemporary course including applications of the scientific method, cellular and molecular biology, biochemistry, classical and human genetics, virology and mechanisms of evolution. BIOL 1407: This course is a continuation of introductory Biology I for majors. It includes a detailed survey of the major phylogenetic lineages. This includes a comparison of the systems of different organisms. Ecological roles and relationships, as well as behavior of organisms, will be integrated throughout.

Career Cluster: Information Technology

Program of Study: Cybersecurity

CYBERSECURITY CAPSTONE

WISD #: 7301000C TIER 2

Grades: 12 1 Credit

Prerequisite: Foundations of Cybersecurity

In the Cybersecurity Capstone course, students will develop the knowledge and skills needed to explore advanced concepts related to the ethics, laws, and operations of cybersecurity. Students will examine trends and operations of cyberattacks, threats, and vulnerabilities. Students will develop security policies to mitigate risks. The skills obtained in this course prepare students for additional study toward industry certification. A variety of courses are available to students interested in the cybersecurity field. Cybersecurity Capstone may serve as a culminating course in this field of study.

Career Cluster: Information Technology

Programs of Study: Cybersecurity, Programming & Software Development

PRACTICUM IN INFORMATION TECHNOLOGY

WISD #: 7040000C TIER 2

Grades: 12 2 Credit

Prerequisite: 2 high school IT courses

In the Practicum in Information Technology, students will gain advanced knowledge and skills in the application, design, production, implementation, maintenance, evaluation, and assessment of products, services, and systems. Knowledge and skills in the proper use of analytical skills and application of IT concepts and standards are essential to prepare students for success in a technology-driven society. Critical thinking, IT experience, and product development may be conducted in a classroom setting with an industry mentor, as an unpaid or paid internship, as part of a capstone project, or as career preparation.

Career Cluster: Information Technology
Program of Study: Programming & Software Development
COMPUTER SCIENCE III

WISD #: 7206000C **TIER 2**
Grades: 11-12 **1 Credit**

Prerequisite: Computer Science II

Computer Science III will foster students' creativity and innovation by presenting opportunities to design, implement, and present meaningful programs through a variety of media. Students will collaborate with one another, their instructor, and various electronic communities to solve the problems presented throughout the course. Through data analysis, students will identify task requirements, plan search strategies, and use computer science concepts to access, analyze, and evaluate information needed to solve problems. By using computer science knowledge and skills that support the work of individuals and groups in solving problems, students will select the technology appropriate for the task, synthesize knowledge, create solutions, and evaluate the results. Students will learn digital citizenship by researching current laws and regulations and by practicing integrity and respect. Students will gain an understanding of advanced computer science data structures through the study of technology operations, systems, and concepts.

To see the complete Program of Study for Law Enforcement or the 4 year plan, click on the links below:

[Law Enforcement](#) [4 year plan](#)

Level 1 Courses

Career Cluster: Law & Public Service
Program of Study: Law Enforcement
PRINCIPLES OF LAW, PUBLIC SAFETY, CORRECTIONS, AND SECURITY

WISD #: 7120000C **TIER 2**
Grades: 09-12 **1 Credit**

Prerequisite:

Principles of Law, Public Safety, Corrections, and Security introduces students to professions in law enforcement, security, corrections, and fire and emergency management services. Students will examine the roles and responsibilities of police, courts, corrections, private security, and protective agencies of fire and emergency services. The course provides students with an overview of the skills necessary for careers in law enforcement, fire service, security, first responder and corrections. Students will gain the knowledge necessary to progress through to other courses in the Law, Public Safety, Security and Corrections pathway.

Level 2 Courses

Career Cluster: Law & Public Service
Program of Study: Law Enforcement
LAW ENFORCEMENT I

WISD #: 7122000C **TIER 2**
Grades: 10-12 **1 Credit**

Prerequisite: Principles of Law, Public Safety, Corrections, and Security

Law Enforcement I is an overview of the history, organization, and functions of local, state, and federal law enforcement. This course includes the role of constitutional law, the United States legal system, criminal law, law enforcement terminology, and the classification and elements of crime. Students will participate in lab environment

learning through the use of uniforms and training equipment. Students will also have the ability to gain leadership training through cadet chain of command and promotions.

Career Cluster: Law & Public Service

Program of Study:

COURT SYSTEMS AND PRACTICES

WISD #: 7127000C **TIER 2**

Grades: 10-12 **1 Credit**

Prerequisite: Principles of Law, Public Safety, Corrections and Security

Court Systems and Practices is an overview of the federal and state court systems. The course identifies the roles of judicial officers and the trial processes from pretrial to sentencing and examines the types and rules of evidence. Emphasis is placed on constitutional laws for criminal and civil procedures such as search and seizure, stop and frisk, interrogation, civil litigation and rules of evidence. Students will participate in Mock Trial labs and events, using small group public speaking skills.

Career Cluster: Law & Public Service

Program of Study: Law Enforcement

CRIMINAL INVESTIGATION

WISD #: 7126000C **TIER 2**

Grades: 10-12 **1 Credit**

Prerequisite: Principles of Law, Public Safety, Corrections and Security

Criminal Investigation is a course that introduces students to the profession of criminal investigations. Students will understand basic functions of criminal investigations and procedures and will learn how to investigate or follow up during investigations. Students will learn terminology and investigative procedures related to criminal investigation, crime scene processing, evidence collection, fingerprinting, and criminal case management. Through case studies and simulated crime scenes, students will collect and analyze evidence such as fingerprint analysis, bodily fluids, hairs, fibers, shoe and tire impressions, bite marks, drugs, tool marks, firearms and ammunition, blood spatter, digital evidence, and other types of evidence. Students will collaborate on work to clear major case investigations and use resources appropriate to Criminal Investigations such as Crime Lab submissions and database reports.

Level 3 Courses

Career Cluster: Law & Public Service

Program of Study: Law Enforcement

LAW ENFORCEMENT II

WISD #: 7123000C **TIER 2**

Grades: 11-12 **1 Credit**

Prerequisite: Law Enforcement I

Law Enforcement II provides the knowledge and skills necessary to prepare for a career in law enforcement. This course includes the ethical and legal responsibilities, operation of police and emergency telecommunication equipment, and courtroom testimony. Students will participate in lab environment learning through the use of uniforms and training equipment. Students will also have the ability to gain leadership training through cadet chain of command and promotions.

Level 4 Courses

Career Cluster: Law & Public Service

Program of Study: Law Enforcement

FORENSIC SCIENCE

WISD #: 7121000C

TIER 2

Grades: 11-12

1 Credit

Prerequisite: Biology and Chemistry or concurrent enrollment

Forensic Science uses critical thinking and problem solving skills through scientific investigation, data collection and evaluation. Students will record data collection results and draw conclusions based on evidence. Units of study include fingerprinting, toxicology, trace evidence, DNA, document analysis, serology and biology.

Career Cluster: Law & Public Service

Program of Study: Law Enforcement

PRACTICUM IN LAW, PUBLIC SAFETY, CORRECTIONS, AND SECURITY

WISD #: 7124000C

TIER 2

Grades: 12

2 Credit

Prerequisite: Law Enforcement II

The practicum course is a capstone experience for students participating in a coherent sequence of career and technical education courses in the Law, Public Safety, Corrections, and Security cluster. The Practicum is designed to give students supervised practical application of previously studied knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience. Students will participate in lab environment learning through the use of uniforms and training equipment. Students will also have the ability to gain leadership training through cadet chain of command and promotions.

To see the complete Program of Study for Welding or the 4 year plan, click on the links below:

[Welding](#)

[4 year plan](#)

Level 1 Courses

Career Cluster: Manufacturing

Program of Study: Welding

INTRODUCTION TO WELDING

WISD #: 7060000C

TIER 2

Grades: 09-12

1 Credit

Prerequisite:

Introduction to Welding will provide an introduction to welding technology with an emphasis on basic welding laboratory principles and operating procedures. Students will be introduced to the three basic welding processes. Topics include: industrial safety and health practices, hand tool and power machine use, measurement, laboratory operating procedures, welding power sources, welding career potentials, and introduction to welding codes and standards. Introduction to Welding will provide students with the knowledge, skills, and technologies required for employment in welding industries. Students will develop knowledge and skills related to welding and apply them to personal career development. This course supports integration of academic and technical knowledge and skills. Students will reinforce, apply, and transfer knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills will prepare students for future success.

Level 2 Courses

Career Cluster: Manufacturing

Program of Study: Welding

WELDING I

WISD #: 7062000C

TIER 2

Grades: 10-12

2 Credit

Prerequisite: Introduction to Welding; \$30 shop fee

Welding provides the knowledge, skills, and technologies required for employment in metal technology systems.

Students develop knowledge and skills related to this system and apply them to personal career development. \$30 shop fee.

Level 3 Courses

Career Cluster: Manufacturing

Program of Study: Welding

WELDING II

WISD #: 7063000C

TIER 2

Grades: 11-12

2 Credit

Prerequisite: Welding I; \$30 shop fee

Advanced Welding builds on knowledge and skills developed in Welding. Students will develop advanced welding concepts and skills as they relate to personal and career development. \$30 shop fee.

Level 4 Courses

Career Cluster: Manufacturing

Program of Study: Welding

PRACTICUM IN MANUFACTURING

WISD #: 7065000C

TIER 2

Grades: 12

2 Credit

Prerequisite: Welding II

Welding techniques include: Metal Arc, Gas metal Arc, Tungsten Arc, Shielded metal plate, and Metal Arc pipe welding.

Students are required to have a job off campus that connects to the Manufacturing career cluster. Self-transportation required.

To see the complete Program of Study for Automotive or the 4 year plan, click on the links below:

[Automotive & Collision Repair](#)

[4 year plan](#)

Level 1 Courses

Career Cluster: Transportation, Distribution & Logistics

Program of Study: Automotive & Collision Repair

AUTOMOTIVE BASICS

WISD #: 7139000C

TIER 2

Grades: 09-12

1 Credit

Prerequisite:

Automotive Basics includes knowledge of the basic automotive systems and the theory and principles of the components that make up each system and how to service these systems. Automotive Basics includes applicable safety and environmental rules and regulations. In Automotive Basics, students will gain knowledge and skills in the repair, maintenance, and servicing of vehicle systems. This study allows students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. The focus of this course is to teach safety, tool identification, proper tool use, and employability.

Level 2 Courses

Career Cluster: Transportation, Distribution & Logistics

Program of Study: Automotive & Collision Repair

AUTOMOTIVE TECHNOLOGY I: MAINTENANCE AND LIGHT REPAIR

WISD #: 7140000C

TIER 2

Grades: 10-12

2 Credit

Prerequisite: Recommended Automotive Basics

Automotive Technology I: Maintenance and Light Repair includes knowledge of the major automotive systems and the principles of diagnosing and servicing these systems. This course includes applicable safety and environmental rules and regulations. In Automotive Technology I: Maintenance and Light Repair, students will gain knowledge and skills in the repair, maintenance, and diagnosis of vehicle systems. This study will allow students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. The focus of this course is to teach safety, tool identification, proper tool use, and employability.

Level 3 Courses

Career Cluster: Transportation, Distribution & Logistics

Program of Study: Automotive & Collision Repair

AUTOMOTIVE TECHNOLOGY II: AUTOMOTIVE SERVICE

WISD #: 7141000C

TIER 2

Grades: 11-12

2 Credit

Prerequisite: Automotive Technology I

Automotive Technology II: Automotive Service includes knowledge of the major automotive systems and the principles of diagnosing and servicing these systems. Automotive Technology II: Automotive Service includes applicable safety and environmental rules and regulations. In this course, students will gain knowledge and skills in the repair, maintenance,

and diagnosis of vehicle systems. This study will allow students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. The focus of this course is to teach safety, tool identification, proper tool use, and employability.

Level 4 Courses

Career Cluster: Transportation, Distribution & Logistics

Program of Study: Automotive & Collision Repair

PRACTICUM IN TRANSPORTATION SYSTEMS

WISD #: 7137000C

TIER 2

Grades: 12

2 Credit

Prerequisite: Automotive Technology II

Practicum in Transportation Systems is designed to give students supervised practical application of knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience such as internships, mentorships, independent study, or laboratories. The Practicum can be either school lab based or work based.

English Language Arts

ENGLISH I

WISD #: 61110000

TIER 2

Grades: 09-12

1 Credit

Prerequisite:

This introductory high school course builds on students' prior knowledge and skills in order to strengthen their listening, speaking, reading, writing, and thinking skills. Students will read within and across increasingly complex traditional, contemporary, classical and diverse texts and demonstrate familiarity with works of American, British, and world literature. Students will engage in the writing of multi-paragraph compositions including literary, informational, argumentative and correspondence and demonstrate organizational structure, a controlling idea or thesis and writing for a variety of audiences.

ENGLISH I HONORS

WISD #: 61110P00

TIER 1

Grades: 09-12

1 Credit

Prerequisite: Honors entry requirements

This Honors course is designed to prepare students for the next advanced course in the subject area. In an Honors course, students gain regular practice in routines and principles to further strengthen their reading, analysis, writing, problem-solving and communications skills to equip them for advanced and/ or college-level work. Students will read within and across increasingly complex traditional, contemporary, classical and diverse texts and demonstrate familiarity with works of American, British, and world literature. Students will engage in the writing of multi-paragraph compositions including literary, informational, argumentative and correspondence and demonstrate organizational structure, a controlling idea or thesis and writing for a variety of audiences.

ENGLISH I SHELTERED

WISD #: 61110SLO

TIER 2

Grades: 09-12

1 Credit

Prerequisite:

This course is available to those new arrival students who have been identified as Emergent Bilinguals. The curriculum emphasizes the academic, social and affective development of English in the areas of listening, speaking, reading, and writing.

ENGLISH II

WISD #: 61210000

TIER 2

Grades: 09-12

1 Credit

Prerequisite: English 1

English II further expands and refines the skills learned in English I. Students will read within and across increasingly complex traditional, contemporary, classical and diverse texts and demonstrate familiarity with works of world literature across literary periods. Students will engage in the writing of multiparagraph compositions including literary, informational, argumentative and correspondence and demonstrate organizational structure, a controlling idea or thesis and writing for a variety of audiences.

ENGLISH II HONORS

WISD #: 61210P00

TIER 1

Grades: 09-12

1 Credit

Prerequisite: English 1; Honors requirements

This Honors course is designed to prepare students for the next advanced course in the subject area. In an Honors course, students gain regular practice in routines and principles to further strengthen their reading, analysis, writing, problem-solving and communications skills to equip them for advanced and/ or college-level work. Students will read within and across increasingly complex traditional, contemporary, classical and diverse texts and demonstrate familiarity with works of world literature across literary periods. Students will engage in the writing of multi-paragraph compositions including literary, informational, argumentative and correspondence and demonstrate organizational structure, a controlling idea or thesis and writing for a variety of audiences.

ENGLISH 2 SHELTERED

WISD #: 61210SLO

TIER 2

Grades: 09-12

1 Credit

Prerequisite:

This course is available to those new arrival students who have been identified as Emergent Bilinguals. The curriculum emphasizes the academic, social and affective development of English in the areas of listening, speaking, reading, and writing.

ENGLISH III

WISD #: 61310000

TIER 2

Grades: 09-12

1 Credit

Prerequisite: English II

American Literature and historical events go hand-in-hand, so the survey of American Literature will stress works in connection with historical context. In addition to refining grammar and mechanics skills via written composition, a focus is also on thematic issues both past and present. In this course, research information with documentation within various forms of writing is also incorporated.

ENGLISH III DUAL CREDIT

WISD #: 61310D00

TIER 1

Grades: 09-12

1 Credit

Prerequisite: Qualifying TSI scores in ELA, English II

(ENGL 1301): A multi-paragraph composition course, including language study and the mechanics of writing, with examples from selected readings. Students may be required to achieve a departmentally approved score on a proficiency test before credit for the course may be rewarded. Composition and Rhetoric II (ENGL1302): A multi-paragraph composition course, including language study and the mechanics of writing, with examples from selected readings. A continuation of ENGL 1301, with an emphasis on critical papers, culminating in a term paper or papers. Readings in prose, poetry, and drama. Textbooks must be purchased by the student each semester.

ENGLISH III AP

WISD #: 61310A00

TIER 1

Grades: 09-12

1 Credit

Prerequisite: English 2 and AP entry requirements

In this college-level course, students will become skilled readers who can effectively write analysis of various styles with an emphasis placed on stylistic and rhetorical analysis. Vocabulary building and standardized test preparation (SAT and AP exams) are emphasized as well.

ENGLISH 3 SHELTERED

WISD #: 61310SL0

TIER 2

Grades: 09-12

1 Credit

Prerequisite:

This course is available to those new arrival students who have been identified as Emergent Bilinguals. The curriculum emphasizes the academic, social and affective development of English in the areas of listening, speaking, reading, and writing.

ENGLISH IV

WISD #: 61410000

TIER 2

Grades: 09-12

1 Credit

Prerequisite: English 3

World literature students will study the origins and development of the English language, and analyze major works in British, World and multicultural literature. To further their communication skills, English 4 students will continue outside reading and participation in the vocabulary program.

ENGLISH IV DUAL CREDIT

WISD #: 61410D00

TIER 1

Grades: 09-12

1 Credit

Prerequisite: Qualifying TSI scores in ELA, English III DC (ENGL 1301 & 1302)

Survey of World Lit (ENGL 2332): A survey of the literature of the world from ancient times to the mid-seventeenth century. Students will engage in college-level critical analysis of World Literature, exhibited through persuasive compositions and original literary criticism. Survey of World Lit (ENGL 2333): A survey of world literature from the mid-seventeenth century to the present. Students will engage in college-level critical analysis of World Literature, exhibited through persuasive compositions and original literary criticism.

ENGLISH IV AP

WISD #: 61410A00

TIER 1

Grades: 09-12

1 Credit

Prerequisite: English 3; AP entry requirements

Students will engage in college-level critical analysis of World Literature, with a focus on British Literature, exhibited through persuasive compositions and original literary criticism. Vocabulary building and standardized test preparation (SAT and AP exams) are also emphasized.

ENGLISH 4 SHELTERED

WISD #: 61410SLO

TIER 2

Grades: 09-12

1 Credit

Prerequisite:

This course is available to those new arrival students who have been identified as Emergent Bilinguals. The curriculum emphasizes the academic, social and affective development of English in the areas of listening, speaking, reading, and writing.

COMMUNICATION APPLICATIONS

WISD #: 66100000

TIER 2

Grades: 09-12

.5 Credit

Prerequisite:

Communication Applications is a course in oral communication. It involves researching, writing, and presenting speeches. Other communication skills such as listening, interviewing, and group discussion will be presented.

CONTEMPORARY MEDIA (FORMERLY KNOWN AS MEDIA LITERACY JOURNALISM)

WISD #: 66510000

TIER 2

Grades: 09-12

1 Credit

Prerequisite:

Students enrolled in Contemporary Media will develop their skills in understanding, analyzing, using, and producing media intelligently. High school students should realize that media can be a vehicle for full participation in academic, social, and democratic processes. Students enrolled in Media Literacy will understand how media influences our tastes, our behavior, our purchasing, and our voting decisions. Students who are media literate understand television, radio, film, and other visual images and auditory messages.

DEBATE I

WISD #: 66130000

TIER 2

Grades: 09-12

1 Credit

Prerequisite:

This course is designed for the serious speech student interested in competition. The class stresses the principles and practices of Argument and Debate. Students construct arguments and present arguments in both public speaking and debate formats. An emphasis is placed on the discussion of current events that affect the life of the student both now and in the future.

DEBATE II

WISD #: 66140000

TIER 2

Grades: 09-12

1 Credit

Prerequisite: Debate I

This course emphasizes the development of critical thinking skills and the development of proficiency in the generation, construction, and presentation of effective arguments. Debate 2 is an expansion and continuation of Debate 1. Students enrolled in this course are required to attend speech tournaments and participate in competitive debates.

DEBATE III

WISD #: 66150000

TIER 2

Grades: 09-12

1 Credit

Prerequisite: Debate II

This course emphasizes the development of critical thinking skills and the development of proficiency in the generation, construction, and presentation of effective arguments. Debate 3 is an expansion and continuation of Debate 2. Students enrolled in this course are required to attend speech tournaments and participate in competitive debates.

HEBREW & NEW TESTAMENT

WISD #: 66560000

TIER 2

Grades: 09-12

1 Credit

Prerequisite:

Students will examine the impact of the Bible's Hebrew Scriptures (Old Testament) and Greek Scriptures (New Testament) on contemporary society and culture, including law, history, government, literature, art, customs, music, morals, oratory, and public policy. This course is designed to maintain religious neutrality and accommodate the diverse religious views, traditions, and perspectives of students in this school district.

JOURNALISM

WISD #: 66520000

TIER 2

Grades: 09-12

1 Credit

Prerequisite: Honors English 1 or 2

Introduction to basic journalistic skills, including newspaper writing and yearbook compilation with a heavy emphasis on writing.

ADVANCED JOURNALISM NEWSPAPER I/II/III

WISD #: 66610000/6662000/6663000

TIER 2

Grades: 10-12

1 Credit

Prerequisite: Journalism/Application

Two classes of Advanced Journalism will be taught, one for the production of "The Wildkat", the Willis yearbook, and another for production of the school newspaper, "The Voice of the Wildkats." In a laboratory situation, students will demonstrate their knowledge of the elements and processes necessary in the production of these publications. Students should have excellent grades as well as be able to work after school hours capturing the events that would go into publications.

ADVANCED JOURNALISM YEARBOOK I/II/III

WISD #: 66710000/6672000/6674000

TIER 2

Grades: 10-12

1 Credit

Prerequisite: Journalism/Application

Two classes of Advanced Journalism will be taught, one for the production of "The Wildkat", the Willis yearbook, and another for production of the school newspaper, "The Voice of the Wildkats." In a laboratory situation, students will demonstrate their knowledge of the elements and processes necessary in the production of these publications. Students should have excellent grades as well as be able to work after school hours capturing the events that would go into publications.

READING I

WISD #: 61600000

TIER 2

Grades: 09-12

1 Credit

Prerequisite:

Reading I offers students reading instruction to successfully navigate academic demands as well as attain life-long literacy skills. Specific instruction in word recognition, vocabulary, comprehension strategies, and fluency provides students an opportunity to read with competence, confidence, and understanding. Students learn how traditional and electronic texts are organized and how authors choose language for effect. All of these strategies are applied in instructional-level and independent-level texts that cross the content areas.

READING II/III

WISD #: 61610000/6162000

TIER 2

Grades: 10-12

1 Credit

Prerequisite: Reading I

Reading II extends reading instruction to successfully navigate academic demands as well as attain life-long literacy skills. Specific instruction in word recognition, vocabulary, comprehension strategies, and fluency provides students an opportunity to read with competence, confidence, and understanding. Students learn how traditional and electronic texts are organized and how authors choose language for effect. All of these strategies are applied in instructional-level and independent-level text that cross the content areas.

Fine Arts

Program: Art

ART I

WISD #: 67000000

TIER 2

Grades: 09-12

1 Credit

Prerequisite:

This introductory course lays the basic foundation for learning art processes, procedures, theories, history, and art judgment. Students will create two-dimensional and three-dimensional works of art from a wide range of media.

Program: Art

ART II CERAMICS

WISD #: 67040000

TIER 2

Grades: 09-12

1 Credit

Prerequisite: Art 1

Ceramics encompasses both sculpture and pottery. Students will study the properties and processes of clay, including hand building, wheel throwing, kiln firing and glazing. Understanding and application of the Elements and Principles of Art and Design will guide the criteria. Integration of appreciation, aesthetics and history will add enrichment to the hands-on studio practice.

Program: Art

ART II DRAWING

WISD #: 67010000

TIER 2

Grades: 09-12

1 Credit

Prerequisite: Art 1

This course is for students who wish to further develop drawing skills introduced in Art I. Students rely on direct observation of their environment, as well as imagination, memory, and their own life experiences to create expressive drawings. A variety of media and mixed media is employed to communicate personal themes. Important concepts include light and shadow, composition, perspective, and abstraction.

Program: Art

ART II PAINTING

WISD #: 67020000

TIER 2

Grades: 09-12

1 Credit

Prerequisite: Art 1

This course includes a more in-depth study of Art I with additional media exploration and further development of problem-solving skills while integrating art history, appreciation, aesthetics, and criticism through hands-on studio practice.

Program: Art

ART II SCULPTURE

WISD #: 67030000

TIER 2

Grades: 09-12

1 Credit

Prerequisite: Art 1

This course encompasses the development of creative problem solving and practical skills in three-dimensional design. Clay and various other materials will be used. Many tools will be safely used in the creative process. Art history, appreciation, aesthetics and criticism will be integrated into studio practice.

Program: Art

ART III CERAMICS

WISD #: 67080000

TIER 2

Grades: 09-12

1 Credit

Prerequisite: Art 2

Students will build on the ceramics skills and study learned in Art II with an eye toward specialization. Relevance to college and career will be considered. Further development of skills, knowledge and appreciation is done through experimentation, research, and practice.

Program: Art

ART III DRAWING

WISD #: 67050000

TIER 2

Grades: 09-12

1 Credit

Prerequisite: Art 2

Students will build on the drawing skills and study learned in Art 2 with an eye toward specialization. Relevance to college and career will be considered. Further development of skills, knowledge and appreciation is done through experimentation, research, and practice.

Program: Art

ART III PAINTING

WISD #: 67060000

TIER 2

Grades: 09-12

1 Credit

Prerequisite: Art 2

This course will explore multiple styles, techniques and media in painting from representation to abstraction. Media that will be used includes oils, acrylics, watercolors, pastels and inks. Art history, appreciation, aesthetics and criticism will be integrated with studio activities.

Department: Fine Arts

Program: Art

ART III SCULPTURE

WISD #: 67070000

TIER 2

Grades: 09-12

1 Credit

Prerequisite: Art 2

This course will develop problem-solving skills while working three dimensionally with various materials, which may include clay, wood, stone, and plaster as well as mixed media. Emphasis will be on exploring individual ideas. Art history, appreciation, aesthetics and criticism will be integrated with studio practice.

Program: Art

ART IV CERAMICS

WISD #: 67130000

TIER 2

Grades: 09-12

1 Credit

Prerequisite: Art 3

Four basic strands—perception, creative expression/performance, historical and cultural heritage, and critical evaluation— provide broad, unifying structures for organizing the knowledge and skills students are expected to acquire. Students rely on their perceptions of the environment, developed through increasing visual awareness and sensitivity to surroundings, memory, imagination, and life experiences, as a source for creating artworks. They express their thoughts and ideas creativity, while challenging their imagination, fostering reflective thinking, and developing disciplined effort and problem-solving skills.

Program: Art

ART IV DRAWING

WISD #: 67090000

TIER 2

Grades: 09-12

1 Credit

Prerequisite: Art 3

A continuation of Art 3 with an emphasis on portfolios, careers, and scholarships.

Program: Art

ART IV PAINTING

WISD #: 67100000

TIER 2

Grades: 09-12

1 Credit

Prerequisite: Art 3

A continuation of Art 3 with an emphasis on portfolios, careers, and scholarships.

Program: Art

ART IV SCULPTURE

WISD #: 67110000

TIER 2

Grades: 09-12

1 Credit

Prerequisite: Art 3

A continuation of Art 3 with an emphasis on portfolios, careers, and scholarships.

Program: Art

ART DUAL CREDIT

WISD #: 67140D00

TIER 1

Grades: 11-12

1 Credit

Prerequisite: Pass TSI

Students cultivate their understanding of art history through analyzing works of art and placing them in historical context as they explore concepts like culture and cultural interactions, theories and interpretations of art, the impact of materials, processes, and techniques on art and art making, and understanding purpose and audience in art historical analysis.

Program: Art

ART APPRECIATION

WISD #: 67150000

TIER 2

Grades: 09-12

1 Credit

Prerequisite:

A general introduction to the visual arts designed to create an appreciation of the vocabulary, media, techniques and Purposes of the creative process. Students will critically interpret and evaluate works of art within formal, cultural and Historical contexts.

Program: Art

ART AP

WISD #: 67120A00

TIER 1

Grades: 09-12

1 Credit

Prerequisite: Application

The student will develop a general or drawing portfolio and will be responsible for portfolio submission. In addition to completing the Art 4 curriculum, students are required to submit a portfolio for the AP Two-Dimensional Art exam.

Program: Dance

DANCE I/II/III/IV

WISD #: 68350000/68360000/68370000/68380000

TIER 2

Grades: 09-12

1 Credit

Prerequisite: previous dance course in sequence

Dance gives students the opportunity to acquire skills in various dance techniques. Dance activities may include ballet, modern, jazz, hip hop, ethnic, aerobic, and social dance. Students will also study dance terminology, history, and choreography. Students will have a performance requirement. This course also fulfills the PE requirement.

Program: Dance

DANCE COMPOSITION I/II/III/IV

WISD #: 75310000/75320000/75330000/75340000

TIER 2

Grades: 09-12 1 Credit

Prerequisite: Director Approval

This course is reserved for dance officers and color guard members. Students will expand further on the skills learned in dance. It will focus on leadership skills and be used as a preparation for performance and competition. Dance composition and choreography will be reinforced through student activities and choreographic works.

Program: Dance

DRILL TEAM I/II/III/IV

WISD #: 68310000/68320000/68330000/68340000

TIER 2

Grades: 09-12 1 Credit

Prerequisite: Selection through a try-out process in the spring of each year

This course prepares students for performance and competition. It will focus on dance technique and teach leadership skills. Drill Team requires out-of-school practices and rehearsals, as well as clothing/costume and other expenses. Guidelines for drill membership are available from the Drill Team Director. Students must have a physical exam on file in order to participate. This course is a Fine Arts credit and earns a PE substitution as well.

Program: Music

CONCERT BAND I/II/III/IV

WISD #: 67410000/67420000/67430000/67440000

TIER 2

Grades: 09-12 1 Credit

Prerequisite: Instructor approval & Audition

Performing group. Students will further their instrumental technique, and music theory skills through participating in the high school marching band and concert band programs. All students will be required to participate in UIL contests for marching, concert bands, a solo and ensemble and all other scheduled performances of the high school band program. PE waiver is earned for the fall semester upon successful participation in marching season.

Program: Music

SYMPHONIC BAND I/II/III/IV

WISD #: 67510000/67520000/67530000/67540000

TIER 2

Grades: 09-12 1 Credit

Prerequisite: Instructor approval & Audition

Performing group. Students will further their instrumental technique, and music theory skills through participating in the high school marching band and concert band programs. All students will be required to participate in UIL contests for marching, concert bands, a solo and ensemble and all other scheduled performances of the high school band program. PE waiver is earned for the fall semester upon successful participation in marching season.

Program: Music

WIND ENSEMBLE I/II/III/IV

WISD #: 67310000/67320000/67330000/67340000

TIER 2

Grades: 09-12 1 Credit

Prerequisite: Instructor approval & Audition

Performing group. Students will further their instrumental technique, and music theory skills through participating in the high school marching band and concert band programs. All students will be required to participate in UIL contests

for marching, concert bands, a solo and ensemble and all other scheduled performances of the high school band program. PE waiver is earned for the fall semester upon successful participation in marching season.

Program: Music

JAZZ BAND I/II/III/IV

WISD #: 67610000/67620000/67630000/67640000

TIER 2

Grades: 09-12 1 Credit

Prerequisite: Instructor approval & Audition

Performing group - The purpose of this course will be to study and to perform Jazz music from the past and present in concerts throughout the year. The course also involves the study and application of basic music theory through improvisation.

Program: Music

ORCHESTRA I/II/III/IV

WISD #: 67350000/67360000/67370000/67380000

TIER 2

Grades: 09-12 1 Credit

Prerequisite: Instructor approval & Audition

Orchestra is a non-varsity ensemble with some performance demands. The orchestra will participate in concerts and school performances. Students are given opportunities for mental and physical discipline, citizenship through group endeavor, physical conditioning, cultural growth, skills in making musical value judgments through critical listening, skills in music theory, and proper instrumental techniques. Attendance at out-of-school rehearsals and performances is required. Open to orchestra string instrumentalists only.

Program: Music

INTERMEDIATE ORCHESTRA I/II/III/IV

WISD #: 67350001/67360001/67370001/67380001

TIER 2

Grades: 09-12 1 Credit

Prerequisite: Instructor approval & Audition

Intermediate Orchestra is a junior varsity performing ensemble with several performance and rehearsal requirements. Intermediate Orchestra members will participate in concerts, UIL evaluations and school performances. Students are given continuing musical opportunities through group endeavor, physical conditioning, cultural growth, and skills in making musical value judgments through critical listening, music theory, and proper instrumental techniques. Attendance at out-of-school rehearsals and performances is required. Open to orchestra string instrumentalists only. Director approval is required for course registration.

Program: Music

ADVANCED ORCHESTRA I/II/III/IV

WISD #: 67350002/67360002/67370002/67380002

TIER 2

Grades: 09-12 1 Credit

Prerequisite: Instructor approval & Audition

Advanced Orchestra is a varsity performing ensemble with frequent performance and rehearsal requirements. Advanced Orchestra members will participate in concerts, UIL evaluations and school performances. Students are given continuing musical opportunities through group endeavor, physical conditioning, cultural growth, and skills in making musical value judgments through critical listening, music theory, and proper instrumental techniques. Attendance at out-of-school rehearsals and performances is required. Open to orchestra string instrumentalists only. Director approval is required for course registration.

Program: Music

GUITAR I/II/III/IV

WISD #: 68200000/68210000/68230000/68240000

TIER 2

Grades: 09-12 1 Credit

Prerequisite: previous Guitar course in sequence or Teacher approval

This course is for students who wish to learn or improve guitar skills through technique and literacy. Students are encouraged to provide a classical/nylon string guitar though classroom instruments are available. Students will learn and build skills through traditional and nontraditional notation as well as classical and popular playing techniques. Students will have the opportunity to perform and participate in available UIL events.

Program: Music

JV CHOIR I/II/III/IV

WISD #: 68010000/68020000/68030000/68040000

TIER 2

Grades: 09-12 1 Credit

Prerequisite: Audition for placement

Performing group – This course is designed to offer opportunities to rehearse and perform many styles of choral music. Students in JV choir are encouraged to participate in district, region and UIL events as appropriate. Vocal techniques, sight reading, music fundamentals, and music theory are included in this class.

Program: Music

V CHOIR I/II/III/IV

WISD #: 68110000/68120000/68130000/68140000

TIER 2

Grades: 09-12 1 Credit

Prerequisite: Audition for placement

Performing group – This course is designed to offer opportunities to rehearse and perform many styles of choral music in an auditioned environment. Students in Varsity choir are required to participate in district, region and UIL events as appropriate. Students will perform frequently and must agree to the choir handbook policies with regards to performance attendance. Vocal techniques, sight reading, music fundamentals, and music theory are included in this class.

Program: Music

APPLIED MUSIC I

WISD #: 67710000

TIER 2

Grades: 09-12 1 Credit

Prerequisite: In Perf. Ensemble; Inst. Approval

*Applied Music 1 must be taken before Applied Music 2. An individualized music program with in-depth, concentrated study of the basics through scales, etudes, rhythms, and terminology to the very advanced stage of the individual's ability. All students will be required to participate in the Regional Band Auditions, and UIL Solo and Ensemble competitions. Applied Music 1 is recommended for 11th and 12th graders. 10th graders will be considered on a case by case basis.

Program: Music

APPLIED MUSIC II

WISD #: 67720000

TIER 2

Grades: 09-12

1 Credit

Prerequisite: In Perf. Ensemble; Inst. Approval; Applied Music I

*Applied Music 1 must be taken before Applied Music 2. An individualized music program with in-depth, concentrated study of the basics through scales, etudes, rhythms, and terminology to the very advanced stage of the individual's ability. All students will be required to participate in the Regional Band Auditions, and UIL Solo and Ensemble competitions. Applied Music 1 is recommended for 11th and 12th graders. 10th graders will be considered on a case by case basis.

Program: Music

MUSIC APPRECIATION

WISD #: 67910000

TIER 2

Grades: 09-12

1 Credit

Prerequisite:

This course is an overview designed to give students access to information about music and its history. Students will learn about the evolution of Western music as well as form intelligent opinions in order to gain skills needed to be an informed music consumer. The course will focus on the physics of sound, evolution of music, music literacy, various genres of music and the attendance of concern in our community.

Program: Music

MUSIC THEORY I

WISD #: 67810000

TIER 2

Grades: 09-12

1 Credit

Prerequisite: Inst. Approval

This course is primarily for students who desire an in-depth study in music theory and are interested in music as a career. The course involves a detailed study of mechanics of music: rhythm, chord progressions, melodic organization, etc.

Program: Music

MUSIC THEORY II

WISD #: 67820000

TIER 2

Grades: 09-12

1 Credit

Prerequisite: Music Theory I; Inst. Approval

It is designed specifically for students who plan to continue their musical training at the college level. Expanded part writing procedures will be covered as well as more advanced ear training. Also, some form and analysis will be a part of the curriculum.

Program: Theatre

THEATRE ARTS I

WISD #: 67210000

TIER 2

Grades: 09-12

1 Credit

Prerequisite: None

This course is an introduction to theatre, including theatre history, terminology, basic acting skills, voice and diction training, and styles of drama, costuming, movie history, and set design.

Program: Theatre

THEATRE ARTS II

WISD #: 67220000

TIER 2

Grades: 09-12

1 Credit

Prerequisite: Theatre Arts 1

Consists of voice and diction, including standard stage diction, and play-analysis. Students are encouraged to act in fall production, one-act play, and annual children's play.

Program: Theatre

THEATRE ARTS III

WISD #: 67230000

TIER 2

Grades: 09-12

1 Credit

Prerequisite: Theatre Arts 2, Instructor Approval

A course designed for advanced theatre students to study the different methods of acting. This will be a yearlong course that students must audition for and meet director's approval. The students will analyze and interpret scripts and utilize advanced characterization. Students in this class may also participate in Drama Kats, a group that performs at local schools.

Program: Theatre

TH ARTS IV

WISD #: 67240000

TIER 2

Grades: 09-12

1 Credit

Prerequisite: Theatre Arts 3, Instructor Approval

A course designed for all ability levels. This course will explore the history of film in the U.S. and how it reflects historical and social mores. Students will view films from the silent era to present and report their analysis in written, oral, or group discussion form. Product and depth of analyzing will coincide with the student's ability level. Students also perform in the annual children's play and are eligible to participate in Drama Kats.

Program: Theatre

Technical Theater I/II/III/IV

WISD #: 67250000/67260000/67270000/67280000

TIER 2

Grades: 09-12

1 Credit

Prerequisite:

Provide a workshop atmosphere for students to have the opportunity to learn the various aspects of technical production by designing and building shows, including areas in lighting design, set design, makeup design, costume design, properties, sound, public relations, and theatre management.

Health

HEALTH

WISD #: 66090000

TIER 2

Grades: 09-12

0.5 Credit

Prerequisite:

Students will acquire health information and skills to assist in becoming healthy adults. Students are taught how to access accurate health information. Students are instructed in the decision-making process, problem-solving, research, and goal setting.

Languages Other Than English

ALS I – AMERICAN SIGN LANGUAGE I

WISD #: 65810000

TIER 2

Grades: 09-12

1 Credit

Prerequisite:

While other languages possess a spoken and/or written element, ASL incorporates manual components with no verbal and/or written form. ASL is a fully developed natural language that is used by members of the North American Deaf Community. The language is distinct from gestures seen in spoken languages in that signs used in ASL are controlled by the structures of its linguistic system, independent of English. ASL encompasses all of the features that make a language a unique, rule-governed communication system. ASL includes handshapes, movements, and other grammatical features needed to form signs and sentences, and parts combine to make wholes. It is not a simplified language and contains structures and processes that English does not. The premise of Deaf culture is rooted in the language itself and cannot be separated.

Program: French

FRENCH I

WISD #: 65710000

TIER 2

Grades: 09-12

1 Credit

Prerequisite:

This course introduces the student to French culture through basic reading, writing and listening skills. Development of conversational ability is reinforced by the study of simple grammatical structures.

Program: French

FRENCH II

WISD #: 65720000

TIER 2

Grades: 09-12

1 Credit

Prerequisite: French 1

This course expands the concepts learned in French I by developing reading, writing, and listening skills. Emphasis will be placed on culture and grammar with expansion of vocabulary skills.

Program: German

GERMAN I

WISD #: 65150000

TIER 2

Grades: 09-12

1 Credit

Prerequisite:

This course introduces the student to German culture through basic reading, writing and listening skills. Development of conversational ability is reinforced by the study of simple grammatical structures.

Program: German

GERMAN II

WISD #: 65250000

TIER 2

Grades: 09-12

1 Credit

Prerequisite: German 1

This course expands the concepts learned in German I by developing reading, writing, and listening skills. Emphasis will be placed on culture and grammar with expansion of vocabulary skills.

Program: German
GERMAN II HONORS

WISD #: 65250P00 **TIER 1**
Grades: 09-12 **1 Credit**

Prerequisite: German 1/Application

This accelerated course is designed for highly motivated students who have demonstrated strong mastery of vocabulary and grammar of German 1. The German 2 Honors builds on the foundations developed in German I, and the primary instruction is in German. Students must be prepared for the supplemental expansion of the curriculum as well as the increased vigor of the classroom.

Program: German
GERMAN III HONORS

WISD #: 65350P00 **TIER 1**
Grades: 09-12 **1 Credit**

Prerequisite: German 2/Application

Increase vocabulary to enable the student to enhance conversational skills. Mastery of tenses and grammatical cases will be studied along with the introduction of the subjunctive voice. Short stories relating to cultural, popular, and historical literature will be introduced.

Program: German
GERMAN IV AP

WISD #: 65450A00 **TIER 1**
Grades: 09-12 **1 Credit**

Prerequisite: German 3/ Application

This advanced placement course is designed for students who are planning to take college level German. It is an intensive study of grammar necessary for accurate written expression, along with culture and extensive language development.

Program: Spanish
SPANISH I

WISD #: 65110000 **TIER 2**
Grades: 09-12 **1 Credit**

Prerequisite: None

The students in this class will be exposed to basic vocabulary usage for non-native speakers. Emphasis will be preparing students for the ever changing world by giving them skills necessary to communicate in a second language.

Program: Spanish
SPANISH I HONORS

WISD #: 65110P00 **TIER 1**
Grades: 09-12 **1 Credit**

Prerequisite:

The students in this class will be exposed to basic vocabulary usage of the Spanish language. They will learn proper verb conjugation using the present tense. The course will provide opportunities to read, listen, write, and speak with correct pronunciation. The culture of Spanish-speaking countries will be experienced through holiday activities, history, legends, and readings. Oral proficiency will be a major goal. The students will be introduced to the more rigorous Advanced Placement realm of study. The course will follow the ACTFL World-Readiness Standards of Communication, Cultures, Connections, Comparisons, and Communities.

Program: Spanish

SPANISH I NATIVE SPEAKER CREDIT BY EXAM

WISD #: 651100N0

TIER 2

Grades: 09-12

1 Credit

Prerequisite: Concurrent enrollment in SPANISH 2 NS (652100N0)

Program: Spanish

SPANISH II

WISD #: 65210000

TIER 2

Grades: 09-12

1 Credit

Prerequisite: Spanish 1 or committee approval

This course is a comprehensive study of grammar, conversation, and a cultural history of Spain and Hispanic America through reading selections.

Program: Spanish

SPANISH II HONORS

WISD #: 65210P00

TIER 1

Grades: 09-12

1 Credit

Prerequisite: Application

This accelerated course is designed for highly motivated students who have demonstrated strong mastery of vocabulary and grammar of Spanish 1. Honors Spanish 2 builds on the foundations developed in Spanish 1 and the primary language of instruction is Spanish. Students must be prepared for the supplemental expansion of the curriculum as well as the increased rigor of the classroom.

Program: Spanish

SPANISH II NATIVE SPEAKER

WISD #: 652100N0

TIER 2

Grades: 09-12

1 Credit

Prerequisite: Administration Approval

This course will address the unique instructional needs of those students who speak Spanish fluently or as their first language. This course will develop correct further oral fluency, and written literacy through literature. *Students who display a proficient knowledge of the material covered will receive credit for Spanish 1 and Spanish 2. A passing grade on a Spanish I Credit-by-Exam test given at the beginning of the course is required to remain in the course.

Program: Spanish

SPANISH III HONORS

WISD #: 65310P00

TIER 1

Grades: 09-12

1 Credit

Prerequisite: Spanish 2/Application

This course is designed for the students that are not native Spanish speakers. This honors course is an intensive study of advanced grammar necessary for accurate written expression, along with culture and extensive language development. Spanish is spoken in the classroom most of the time.

Program: Spanish

SPANISH III NATIVE SPEAKER HONORS

WISD #: 65320PNO TIER 1

Grades: 09-12 1 Credit

Prerequisite: Spanish II NS/Application

This course is designed for the students that are native Spanish speakers. This course is designed for students whose home language is Spanish. This honors course is an intensive study of advanced grammar necessary for accurate written expression, along with culture and extensive language development.

Program: Spanish

SPANISH IV AP

WISD #: 65410A00 TIER 1

Grades: 09-12 1 Credit

Prerequisite: Spanish III Honors/Application/AP Req./recommend 80 average in Spanish 3

This course is designed for students who are not native Spanish speakers. This honors course is an intensive study of grammar necessary for accurate written expression, along with culture and extensive language development. This course is designed to help students prepare for the AP Spanish Examination. Spanish is spoken exclusively in the classroom. This course is a prerequisite for AP Spanish 5 Literature.

Program: Spanish

SPANISH IV NATIVE SPEAKER AP

WISD #: 65420ANO TIER 1

Grades: 09-12 1 Credit

Prerequisite: Spanish 3 NS/Application/recommend 80 average in Span 3 NS/AP requirements

This course is designed for students who are native Spanish speakers. This honors course is an intensive study of grammar necessary for accurate written expression, along with culture and extensive language development. This course is designed to help students prepare for the AP Spanish Examination. This course is designed for students whose home language is Spanish. This course is a prerequisite for AP Spanish 5 Literature.

Program: Spanish

SPANISH IV DUAL CREDIT

WISD #: 65410D00 TIER 1

Grades: 11-12 1 Credit

Prerequisite: Spanish III and Pass TSI

This course is designed for students who are not native Spanish speakers. This dual credit course is an intensive study of grammar necessary for accurate written expression, along with culture and extensive language development. Spanish is spoken exclusively in the classroom.

Program: Spanish

SPANISH V AP

WISD #: 65510A00 TIER 1

Grades: 09-12 1 Credit

Prerequisite: Spanish 4/Application/ AP Req.

This course is designed for students who have scored a 3 or higher on the Spanish Language AP exam. The course will consist of a survey of Spanish literature. The course will cover poetry and prose texts from the Middle Ages to the

beginning of the twentieth century. Students will be expected to prepare for the AP Spanish Literature test in the spring. Students must have scored a 4 or 5 on the Spanish AP test in order to be successful in this course.

Local Credits

OFFICE AIDE

WISD #: 6684000L

TIER 2 (Does not count toward WGPA)

Grades: 12

1 Credit

Prerequisite: None

Students work in offices and classrooms throughout the building.

STUDENT COUNCIL LEADERSHIP

WISD #: 6682000L

TIER 2 (Does not count toward WGPA)

Grades: 09-12

1 Credit

Prerequisite: Membership in Student Council

Mathematics

ALGEBRA I

WISD #: 62110000

TIER 2

Grades: 09-12

1 Credit

Prerequisite:

This course builds on the foundations encountered in K-8 math. It stresses the importance of algebraic thinking and symbolic reasoning. Students investigate the relationship between equations and functions. Functions are used to model problems and to analyze and interpret relationships. Students learn to use the graphing calculator. For college bound students, a graphing calculator is strongly recommended.

ALGEBRA I HONORS

WISD #: 62110P00

TIER 1

Grades: 09-10

1 Credit

Prerequisite:

This course stresses the importance of algebraic thinking and symbolic reasoning. Students investigate the relationship between equations and functions. Functions are used to model problems and to analyze and interpret relationships. This honors course involves extended thinking skills and applications including required projects. This course is recommended for college bound students. A graphing calculator is strongly recommended.

ALGEBRAIC REASONING

WISD #: 62420000

TIER 2

Grades: 10-12

1 Credit

Prerequisite: Algebra I

In Algebraic Reasoning, students will build on the knowledge and skills for mathematics in Kindergarten-Grade 8 and Algebra I, continue with the development of mathematical reasoning related to algebraic understandings and processes, and deepen a foundation for studies in subsequent mathematics courses. Students will broaden their knowledge of functions and relationships, including linear, quadratic, square root, rational, cubic, cube root, exponential, absolute value, and logarithmic functions. Students will study these functions through analysis and application that includes explorations of patterns and structure, number and algebraic methods, and modeling from data using tools that build workforce and college readiness such as probes, measurement tools, and software tools, including spreadsheets.

MATH MODELS WITH APPLICATIONS

WISD #: 62200000

TIER 2

Grades: 09-12

1 Credit

Prerequisite: Algebra I; Approval Only

Students use algebraic, graphical, and geometric reasoning to recognize patterns and structure, to model information, and solve real-life applied problems. Students will use different formats of technology to enhance their mathematical skills.

GEOMETRY

WISD #: 62210000

TIER 2

Grades: 09-12

1 Credit

Prerequisite: Algebra I

Geometry provides experiences that help students develop understanding of shapes and their properties. The topics covered include: lines, segments, and angles; triangles; other polygons; circles; solid geometry; and measurement. Students continue to use the graphing calculator.

GEOMETRY HONORS

WISD #: 62210P00

TIER 1

Grades: 09-12

1 Credit

Prerequisite: Algebra 1, Honors requirements

Geometry provides experiences that help students develop an understanding of shapes and their properties. The topics covered include: lines, segments, and angles; triangles; other polygons; circles; solid geometry; and measurement. Students continue to use the graphing calculator. This honors course involves extended thinking skills and applications including required projects. This course is recommended for AP preparation.

ALGEBRA II

WISD #: 62310000

TIER 2

Grades: 09-12

1 Credit

Prerequisite: Algebra I

This course continues and enhances Algebra I. It is an important transition course for preparation for higher-level mathematics. The course emphasis is on problem solving and involves extended thinking skills and applications. Students continue to use the graphing calculator.

ALGEBRA II HONORS

WISD #: 62310P00

TIER 1

Grades: 09-12

1 Credit

Prerequisite: Algebra I & Honors requirements

This fast-paced course is an important transition course for preparation for higher-level mathematics. The course emphasis is on problem solving and involves extended thinking skills and applications. Students should be independent learners with the capability to study at a greater depth and rigor. A graphing calculator is strongly recommended.

ADV QUANTITATIVE REASONING

WISD #: 62410000

TIER 2

Grades: 11-12

1 Credit

Prerequisite: Geometry and Algebra 2

Advanced Quantitative Reasoning follows Algebra II and emphasizes statistics and financial applications. AQR prepares students to use a variety of mathematical tools and approaches to model a range of situations and solve problems.

COLLEGE ALG DUAL CREDIT (MATH 1314)

WISD #: 62120D00

TIER 1

Grades: 11-12

.5 Credit

Prerequisite: Qualifying TSI scores in ELA and Math; Algebra II

MATH 1314: This course is the basic college level algebra course. A graphing calculator is strongly recommended. Topics include absolute value equations and inequalities, graphing skills, inverse functions, logarithmic and exponential functions, polynomial and rational functions, piecewise-defined functions, theory of equations and systems of equations. Students in this full year DC class will be able to receive 3 hours of Lone Star College credit.

STATISTICS AP

WISD #: 62470A00

TIER 1

Grades: 09-12

1 Credit

Prerequisite: Algebra 2 Pre AP

This course is designed to provide the student with a basic knowledge of functions, limits, continuity, differentiation, and integration of algebraic and trigonometric functions, applications of differentiation, and an introduction to applications of the definite integral. A graphing calculator is required. Check for a list of approved calculators from the AP Central website.

STATISTICS DUAL CREDIT (MATH 1342)

WISD #: 62480D00

TIER 1

Grades: 11-12

.5 Credit

Prerequisite: Qualifying TSI scores in ELA and Math; Algebra II

MATH 1342: In Statistics, students will build on the knowledge and skills for mathematics in Kindergarten-Grade 8 and Algebra I. Students will broaden their knowledge of variability and statistical processes. Students will study sampling and experimentation, categorical and quantitative data, probability and random variables, inference, and bivariate data. Students will connect data and statistical processes to real-world situations. In addition, students will extend their knowledge of data analysis.

PRECALCULUS

WISD #: 62430000

TIER 2

Grades: 11-12

1 Credit

Prerequisite: Algebra I, Geometry, and Algebra II

The course approaches topics from a function point of view, where appropriate, and is designed to strengthen and enhance conceptual understanding and mathematical reasoning used when modeling and solving mathematical and real-world problems. Students systematically work with functions and their multiple representations. The study of Precalculus deepens students' mathematical understanding and fluency with algebra and trigonometry and extends their ability to make connections and apply concepts and procedures at higher levels. Students investigate and explore mathematical ideas, develop multiple strategies for analyzing complex situations, and use technology to build understanding, make connections between representations, and provide support in solving problems.

PRECALCULUS DUAL CREDIT (MATH 1316/MATH 2412)

WISD #: 62430D00

TIER 1

Grades: 11-12

1 Credit

Prerequisite: Qualifying TSI scores in ELA and Math; College Algebra (MATH 1314)

MATH 1316: Trigonometric functions and their applications, solutions of right and oblique triangles, trigonometric identities and equations, inverse trigonometric functions, graphs of the trigonometric functions, vectors and polar coordinates. MATH 2412: An integrated treatment of the concepts necessary for calculus beginning with a review of

algebraic and transcendental functions including trigonometric functions. Topics also include the binomial theorem, analytic geometry, vector algebra, polar and parametric equations, mathematical induction and sequences and series.

BUSINESS CALCULUS DUAL CREDIT (MATH 1325)

WISD #: 62490D00

TIER 1

Grades: 11-12

.5 Credit

Prerequisite: Qualifying TSI scores in ELA and Math; College Algebra (MATH 1314)

MATH 1325: This course is the basic study of limits and continuity, differentiation, optimization and graphing, and integration of elementary functions, with emphasis on applications in business, economics, and social sciences.

CALCULUS DUAL CREDIT (MATH 2413)

WISD #: 62460D00

TIER 1

Grades: 09-12

1 Credit

Prerequisite: Qualifying TSI scores in ELA and Math; College Algebra (MATH 1314), Trigonometry (MATH 1316), Pre-Calculus DC (MATH 2412)

MATH 2413: This course is designed to provide the student with a basic knowledge of functions, limits, continuity, differentiation, and integration of algebraic and trigonometric functions, applications of differentiation, and an introduction to applications of the definite integral. A graphing calculator is required. Students in Calculus DC class will be able to receive 4 hours of Lone Star College Credit.

CALCULUS AP

WISD #: 62450A00

TIER 1

Grades: 09-12

1 Credit

Prerequisite: Precal; AP requirements

This course is designed to provide the student with a basic knowledge of functions, limits, continuity, differentiation, and integration of algebraic and trigonometric functions, applications of differentiation, and an introduction to applications of the definite integral. A graphing calculator is required. Check for a list of approved calculators from the AP Central website.

Other Electives

SPORTS MEDICINE I

WISD #: 75550000

TIER 2

Grades: 09-12

1 Credit

Prerequisite: Trainer Approval/Application Required

This course is a classroom study of sports medicine. It is designed to further develop the skills of the student desiring to be in the field of sports medicine.

SPORTS MEDICINE II

WISD #: 75560000

TIER 2

Grades: 09-12

1 Credit

Prerequisite:

This course is a classroom study of sports medicine. It is designed to further develop the skills of the student desiring to be in the field of sports medicine.

LEADWORTHY THE COURSE (FORMERLY KNOWN AS TEEN LEADERSHIP)

WISD #: 66810000

TIER 2

Grades: 09-12

0.5 Credit

Prerequisite:

Leadworthy will help students improve their social and study skills. Skills include taking responsibility for behavior, character development, conflict resolution, improving communication, goal setting, time management, and organization. Much of this class will be project oriented.

Physical Education

LIFETIME FITNESS AND WELLNESS PURSUITS

WISD #: 75100000

TIER 2

Grades: 09-12

1 Credit

Prerequisite:

The Lifetime Fitness and Wellness Pursuits course offers current approaches for the foundation of personal fitness, physical literacy, lifetime wellness, and healthy living. Students in Lifetime Fitness and Wellness Pursuits will apply the knowledge and skills to demonstrate mastery of the concepts needed to achieve lifetime wellness. Students will participate in a variety of physical activities for attaining personal fitness and lifetime wellness.

LIFETIME RECREATION AND OUTDOOR PURSUITS

WISD #: 75110000

TIER 2

Grades: 09-12

1 Credit

Prerequisite:

The Lifetime Recreation and Outdoor Pursuits course provides opportunities for students to develop competency in five or more lifelong recreational and outdoor pursuits for enjoyment and challenge. Students in Lifetime Recreation and Outdoor Pursuits participate in activities that promote physical literacy, respect for and connection to nature and the environment, and opportunities for enjoyment for a lifetime. Students will experience opportunities that enhance self-worth and support community engagement.

SKILLS-BASED LIFETIME ACTIVITIES

WISD #: 75120000

TIER 2

Grades: 09-12

1 Credit

Prerequisite:

The Skill-Based Lifetime Activities course offers students the opportunity to demonstrate mastery in basic sport skills, basic sport knowledge, and health and fitness principles. Students experience opportunities that promote physical literacy and lifetime wellness. Students in Skill-Based Lifetime Activities participate in a minimum of one lifelong activity from each of the following five categories during the course: Target games, striking and fielding games, fitness activities, rhythmic activities, and innovative games and activities.

Athletics (Physical Education Substitution)

BASEBALL YR I/II/III/IV

WISD #: 80130000/80140000/80150000/80160000

TIER 2

Grades: 09-12

1 Credit

Prerequisite: Coach's approval

BOYS BASKETBALL YR I/II/III/IV		
WISD #:	80050000/80060000/80070000/80080000	TIER 2
Grades:	09-12	1 Credit
Prerequisite: Coach's approval		
BOYS GOLF YR I/II/III/IV		
WISD #:	80170000/80180000/80190000/80200000	TIER 2
Grades:	09-12	1 Credit
Prerequisite: Coach's approval		
BOYS SOCCER YR I/II/III/IV		
WISD #:	80090000/80100000/80110000/80120000	TIER 2
Grades:	09-12	1 Credit
Prerequisite: Coach's approval		
CROSS COUNTRY YR I/II/III/IV		
WISD #:	82050000/82060000/82070000/82080000	TIER 2
Grades:	09-12	1 Credit
Prerequisite: Coach's approval		
FOOTBALL YR I/II/III/IV		
WISD #:	80010000/80020000/80030000/80040000	TIER 2
Grades:	09-12	1 Credit
Prerequisite: Coach's approval		
GIRLS BASKETBALL YR I/II/III/IV		
WISD #:	81050000/80160000/80170000/80180000	TIER 2
Grades:	09-12	1 Credit
Prerequisite: Coach's approval		
GIRLS GOLF YR I/II/III/IV		
WISD #:	81170000/81180000/81190000/81200000	TIER 2
Grades:	09-12	1 Credit
Prerequisite: Coach's approval		
GIRLS SOCCER YR I/II/III/IV		
WISD #:	81090000/81100000/81110000/81120000	TIER 2
Grades:	09-12	1 Credit
Prerequisite: Coach's approval		
PE NON-DISTRICT I/II/III/IV		
WISD #:	83010000/83020000/83040000/83050000	TIER 2
Grades:	09-12	1 Credit
Prerequisite: Provider approval by Student Services; student approval by Associate Principal		

SOFTBALL YR I/II/III/IV**WISD #: 81130000/81140000/81150000/81160000** **TIER 2****Grades: 09-12** **1 Credit**

Prerequisite: Coach's approval

SWIM I/II/III/IV**WISD #: 82110000/82120000/82130000/82140000** **TIER 2****Grades: 09-12** **1 Credit**

Prerequisite: Coach's approval

TENNIS YR I/II/III/IV**WISD #: 82010000/82020000/82030000/82040000** **TIER 2****Grades: 09-12** **1 Credit**

Prerequisite: Coach's approval

VOLLEYBALL YR I/II/III/IV**WISD #: 81010000/81020000/81030000/81040000** **TIER 2****Grades: 09-12** **1 Credit**

Prerequisite: Coach's approval

WRESTLING I/II/III/IV**WISD #: 82210000/82220000/82230000/82240000** **TIER 2****Grades: 09-12** **1 Credit**

Prerequisite: Coach's approval

Science**BIOLOGY****WISD #: 63110000** **TIER 2****Grades: 09-12** **1 Credit**

Prerequisite:

This course is a lab-oriented study of living systems and plants and the environment.

BIOLOGY HONORS**WISD #: 63110P00** **TIER 1****Grades: 09-12** **1 Credit**

Prerequisite:

This honors level course is a lab-oriented study of living systems and plants and the environment.

IPC**WISD #: 63210000** **TIER 2****Grades: 09-12** **1 Credit**

Prerequisite: Alg. 1 or concurrent

This course is an introduction to the fundamental sciences of physics and chemistry.

CHEMISTRY

WISD #: 63310000

TIER 2

Grades: 09-12

1 Credit

Prerequisite: Biology

This course emphasizes experimentation in which the student investigates a variety of chemical processes.

CHEMISTRY HONORS

WISD #: 63310P00

TIER 1

Grades: 09-12

1 Credit

Prerequisite: Biology

This honors course emphasizes experimentation in which the student investigates a variety of chemical processes.

CHEMISTRY AP

WISD #: 63310A00

TIER 1

Grades: 10-12

1 Credit

Prerequisite: Chemistry, Algebra 2 or concurrent enrollment

Emphasis in this honors level course is on advanced level experimentation and in-depth studies. This is designed as a college level course. Students will prepare to take the AP Exams in the spring.

BIOLOGY DUAL CREDIT (SCIENTIFIC RESEARCH & DESIGN)

WISD #: 63110D0C

TIER 1

Grades: 11-12

1 Credit

Prerequisite: Biology, Chemistry; qualifying TSI scores in ELA and Math

BIOL 1406: A contemporary course including applications of the scientific method, cellular and molecular biology, biochemistry, classical and human genetics, virology and mechanisms of evolution. BIOL 1407: This course is a continuation of introductory Biology I for majors. It includes a detailed survey of the major phylogenetic lineages. This includes a comparison of the systems of different organisms. Ecological roles and relationships, as well as behavior of organisms, will be integrated throughout.

BIOLOGY AP

WISD #: 63110A00

TIER 1

Grades: 11-12

1 Credit

Prerequisite: Chem., Alg. 2 or concurrent

This is an advanced study of physical and chemical biological processes. This is designed as a college level course.

PHYSICS

WISD #: 63420000

TIER 2

Grades: 11-12

1 Credit

Prerequisite: 2 Science Credits & Algebra 2 concurrent

This course is organized as a general physics course. Physics areas include: Newtonian Mechanics, Fluid Mechanics, Thermal Physics, Electricity and Magnetism, Waves and Optics, and Atomic and Nuclear Physics. Physical situations studied are primarily two dimensional at any angle. Analysis techniques are less graphical and more mathematical.

PHYSICS DUAL CREDIT (PHYS 1401)**WISD #: 63420D00****TIER 2****Grades: 11-12****1 Credit**

Prerequisite: Biology, Chemistry; MATH 1314 and MATH 1316

Fundamental principles of physics, using algebra and trigonometry; the principles and applications of classical mechanics and thermodynamics, including harmonic motion, mechanical waves and sound, physical systems, Newton's Laws of Motion, and gravitation and other fundamental forces; with emphasis on problem solving. Laboratory activities will reinforce fundamental principles of physics.

PHYSICS AP I**WISD #: 63520A00****TIER 1****Grades: 11-12****1 Credit**

Prerequisite: Chemistry, Algebra 2 or concurrent enrollment

This is the honors physics course. Both two-dimensional and three-dimensional physical situations at multiple angles are explored. Analysis techniques are primarily mathematical. Problems often involve integrating concepts from multiple physics areas.

PHYSICS AP2**WISD #: 63530A00****TIER 1****Grades: 12****1 Credit**

Prerequisite: AP Physics I

In Physics 2, students develop a deep understanding of foundational principles of physics in classical mechanics and modern physics by applying these principles to complex physical situations that combine multiple aspects of physics rather than present concepts in isolation. Students will discuss, confer, and debate with classmates to explain a physical phenomenon investigated in class and design and conduct inquiry-based laboratory investigations to solve problems through first-hand observations, data collection, analysis and interpretation.

ANATOMY AND PHYSIOLOGY**WISD #: 7106000C****TIER 2****Grades: 11-12****1 Credit**

Prerequisite: Biology and 2nd Science Credit

Students conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Students in Anatomy and Physiology study a variety of topics, including the structure and function of the human body and the interaction of body systems for maintaining homeostasis.

ANATOMY AND PHYSIOLOGY DUAL CREDIT**WISD #: 71060D0C****TIER 1****Grades: 11-12****1 Credit**

Prerequisite: Biology, Chemistry; qualifying TSI scores in ELA and Math

BIOL 2401 & BIOL 2403: A study of the structure and function of the human body. Emphasis will be given to the study of cells and tissues and anatomical and physiological interrelationships of the integumentary, skeletal, muscular, and nervous systems. Designated primarily for students entering health careers.

AQUATIC SCIENCE

WISD #: 63620000

TIER 2

Grades: 11-12

1 Credit

Prerequisite: Biology

A study of the basic ecological knowledge and theories concerning the structure and function of aquatic environments is the focus of this course.

ASTRONOMY

WISD #: 63630000

TIER 2

Grades: 11-12

1 Credit

Prerequisite: 2 Science Credits

This class will be a study of the cosmos. Topics will include: planets, comets, asteroids in our solar system, galaxies, life and death of stars, theories on the evolution of the universe and instruction on the dynamics and viewing of constellations in the night sky, space flight, and history of the sun, the moon and the possibility of life elsewhere.

BIOTECHNOLOGY DUAL CREDIT

WISD #: 63120D0C

TIER 1

Grades: 11-12

1 Credit

Prerequisite: Biology, Chemistry; qualifying TSI scores in ELA and Math

BIOL 1414: An introduction to biotechnology including career exploration, history and applications of DNA/RNA technology, molecular biology, bioethics, and laboratory safety practices. This is a year-long course at the high school level but a spring semester course at the college.

EARTH SYSTEMS SCIENCE

WISD #: 63640000

TIER 2

Grades: 11-12

1 Credit

Prerequisite: 2 Science Credits

The Earth Systems Science course is designed to build on students' prior scientific and academic knowledge and skills to develop their understanding of Earth's systems. These systems (the atmosphere, hydrosphere, geosphere, and biosphere) interact through time to produce the Earth's landscapes, climate, and resources. Students explore the geologic history of individual dynamic systems through the flow of energy and matter, their current states, and how these systems affect and are affected by human use.

ENVIRONMENTAL SCIENCE AP

WISD #: 63550A00

TIER 1

Grades: 11-12

1 Credit

Prerequisite: 2 years of high school laboratory science, at least 1 year of algebra

The AP Environmental Science course is designed to engage students with the scientific principles, concepts, and methodologies required to understand the interrelationships within the natural world. The course requires that students identify and analyze natural and human-made environmental problems, evaluate the relative risks associated with these problems, and examine alternative solutions for resolving or preventing them. Environmental science is interdisciplinary, embracing topics from geology, biology, environmental studies, environmental science, chemistry, and geography.

FORENSIC SCIENCE

WISD #: 7121000C

TIER 2

Grades: 11-12

1 Credit

Prerequisite: Biology and Chemistry or concurrent enrollment

Forensic Science uses critical thinking and problem solving skills through scientific investigation, data collection and evaluation. Students will record data collection results and draw conclusions based on evidence. Units of study include fingerprinting, toxicology, trace evidence, DNA, document analysis, serology and biology.

Social Studies

WORLD GEOGRAPHY

WISD #: 64110000

TIER 2

Grades: 09

1 Credit

Prerequisite:

A study of people, places, and environments.

WORLD GEOGRAPHY HONORS

WISD #: 64110P00

TIER 1

Grades: 09

1 Credit

Prerequisite: Honors requirements

An honors course which studies people, places, and environments. Honors is a challenging course that prepares students for college level work by using a more rigorous curriculum.

HUMAN GEOGRAPHY AP

WISD #: 64120A00

TIER 1

Grades: 09

1 Credit

Prerequisite:

AP Human Geography is an introductory college-level human geography course. Students cultivate their understanding of human geography through data and geographic analyses as they explore topics like patterns and spatial organization, human impacts and interactions with their environment, and spatial processes and societal changes.

WORLD HISTORY

WISD #: 64210000

TIER 2

Grades: 10

1 Credit

Prerequisite: World Geography

Study of significant people, events, and issues from the earliest times to the present.

WORLD HISTORY AP

WISD #: 64230A00

TIER 1

Grades: 10

1 Credit

Prerequisite: AP requirements

AP World History: Modern is an introductory college-level modern world history course. Students cultivate their understanding of world history from c. 1200 CE to the present through analyzing historical sources and learning to make connections and craft historical arguments as they explore concepts like humans and the environment, cultural developments and interactions, governance, economic systems, social interactions and organization, and technology and innovation.

US HISTORY

WISD #: 64310000

TIER 2

Grades: 11

1 Credit

Prerequisite: World History

A history of the United States, from Reconstruction to the present.

US HISTORY DUAL CREDIT

WISD #: 64310D00

TIER 1

Grades: 11

1 Credit

Prerequisite: Qualifying TSI scores in ELA; Recommend that students have completed World History

HIST 1301: A survey of U.S. history from Pre-Contact Societies through Reconstruction. Themes to be developed include westward expansion and globalization, slavery, Native Americans, and religious and social changes. An additional purpose of this course is to introduce students to skills and practices of history. HIST 1302: A survey of U.S. history from 1877 to the present. Topics include western expansion, industrialization, immigration, imperialism, economic, political and social developments, the wars of the 20th century and the changing status and conditions of women and minorities. Another purpose of this course is to introduce students to the skills and practices of history.

US HISTORY AP

WISD #: 64310A00

TIER 1

Grades: 11

1 Credit

Prerequisite: World History, AP requirements

AP U.S. History is an introductory college-level U.S. history course. Students cultivate their understanding of U.S. history from c. 1491 CE to the present through analyzing historical sources and learning to make connections and craft historical arguments as they explore concepts like American and national identity; work, exchange, and technology; geography and the environment; migration and settlement; politics and power; America in the world; American and regional culture; and social structures.

ECONOMICS (WITH EMPHASIS ON THE FREE ENTERPRISE SYSTEM AND ITS BENEFITS)

WISD #: 64510000

TIER 2

Grades: 12

0.5 Credit

Prerequisite: U.S. History

This course is the culmination of the economic content and concepts studied from Kindergarten through required secondary courses. The focus is on the basic principles concerning production, consumption, and distribution of goods and services (the problem of scarcity) in the United States and a comparison with those in other countries around the world. Students analyze the interaction of supply, demand, and price. Students will investigate the concepts of specialization and international trade, economic growth, key economic measurements, and monetary and fiscal policy. Students will study the roles of the Federal Reserve System and other financial institutions, government, and businesses in a free enterprise system. Types of business ownership and market structures are discussed. The course also incorporates instruction in personal financial literacy. Students apply critical-thinking skills using economic concepts to evaluate the costs and benefits of economic issues. Meets state graduation requirements for Economics.

PERSONAL FINANCIAL LITERACY AND ECONOMICS

WISD #: 67540000

TIER 2

Grades: 12

0.5 Credit

Prerequisite: U.S. History

Personal Financial Literacy and Economics builds on and extends the economic content and concepts studied in Kindergarten-Grade 12 social studies in Texas. The course provides a foundation in both microeconomics and macroeconomics. Students will survey the impact of demand, supply, various industry structures, and government

policies on the market for goods, services, and wages for workers. Macroeconomic study involves economic systems with an emphasis on free enterprise market systems, goals of full employment, price stability, and growth while examining problems such as unemployment and inflation and the policies enacted to address them. The course also builds on and extends the personal finance content and concepts studied in Kindergarten-Grade 8 in mathematics in Texas. It is an integrative course that applies the same economic way of thinking developed to making choices about how to allocate scarce resources in an economy to how to make them at the personal level. The course requires that students demonstrate critical thinking by exploring how to invest in themselves with education and skill development, earn income, and budget for spending, saving, investing, and protecting. Students will examine their individual responsibility for managing their personal finances and understand the impact on standard of living and long-term financial well-being. Further, students will connect how their financial decision making impacts the greater economy. Meets state graduation requirements for Economics.

MACROECONOMICS DUAL CREDIT

WISD #: 64510D00

TIER 1

Grades: 12

0.5 Credit

Prerequisite: Qualifying TSI scores in ELA and Math; US History

An analysis of the economy as a whole including measurement and determination of Aggregate Demand and Aggregate Supply, national income, inflation, and unemployment. Other topics include international trade, economic growth, business cycles, and fiscal policy and monetary policy. Meets state graduation requirements for Economics.

MACROECONOMICS AP

WISD #: 64510A00

TIER 1

Grades: 12

0.5 Credit

Prerequisite: U.S. History, AP requirements

AP Macroeconomics is a college-level course that introduces students to the principles that apply to an economic system as a whole. The course places particular emphasis on the study of national income and price-level determination. It also develops students' familiarity with economic performance measures, the financial sector, stabilization policies, economic growth, and international economics. Students learn to use graphs, charts, and data to analyze, describe, and explain economic concepts. Meets state graduation requirements for Economics.

MICROECONOMICS DUAL CREDIT

WISD #: 64520D00

TIER 1

Grades: 12

.05 Credit

Prerequisite: Qualifying TSI scores in ELA and Math; U.S. History

ECON 2302: Analysis of the behavior of individual economic agents, including consumer behavior and demand, producer behavior and supply, price and output decisions by firms under various market structures, factor markets, market failures, and international trade. Meets state graduation requirements for Economics.

GOVERNMENT

WISD #: 64410000

TIER 2

Grades: 12

.05 Credit

Prerequisite: U. S. History

Studies the principles and beliefs upon which the U.S. was founded and on the structure, functions, and powers of government at the national, state, and local levels.

GOVERNMENT DUAL CREDIT (FEDERAL)

WISD #: 6441AD00

TIER 1

Grades: 12

.05 Credit

Prerequisite: Qualifying TSI scores in ELA; recommended that student has completed U.S. History GOVT 2305: Origin and development of the U.S. Constitution, structure and powers of the national government including the legislative, executive, and judicial branches, federalism, political participation, the national election process, public policy, civil liberties and civil rights. Meets state graduation requirements for Government.

GOVERNMENT AP

WISD #: 64410A00

TIER 1

Grades: 12

0.5 Credit

Prerequisite: U. S. History, AP requirements

A survey of the Federal government including such topics such as the US Constitution; democratic theory; federalism; political culture, political socialization and public opinion; political participation and electoral behavior; political parties and interest groups; press; Presidency, the Congress and the Courts; the role played by the Bureaucracy, Social policy, Economic policy, and the dynamic nature of American Foreign Policy. These phenomena are examined at the national levels with an emphasis placed on linkages with the formulation of public policy. Willis High School lends the standard text to students, and students use internet-based learning management systems. Meets state graduation requirements for Government.

GOVERNMENT DUAL CREDIT (STATE AND LOCAL)

WISD #: 6441BD00

TIER 1

Grades: 12

.05 Credit

Prerequisite: Qualifying TSI scores in ELA; recommended that student has completed U.S. History GOVT 2306: Origin and development of the Texas Constitution, structure and powers of state and local government, federalism and intergovernmental relations, political participation, the election process, public policy, and the political culture of Texas.

PERSONAL FINANCIAL LITERACY

WISD #: 64530000

TIER 2

Grades: 10-12

.05 Credit

Personal Financial Literacy is designed to be an interactive and research-based course. The course will teach students to apply critical-thinking and problem-solving skills to analyze decisions involving earning and spending, saving and investing, credit and borrowing, insuring and protecting, and college and postsecondary education and training. There are many references to conducting a cost-benefit analysis for spending and investing decisions. Students evaluate the necessity of the purchase, the quality or value of the purchase or investment compared to other alternatives, and the total cost of acquisition, particularly in the context of financing options. Students also understand the power of both compound growth on investments and compound interest on debt and how these concepts affect the ability to build wealth over time. This course includes instruction in methods of paying for college and other postsecondary education and training along with completing the application for federal student aid provided by the U.S. Department of Education. Students analyze the relationship between education and training and earnings potential; evaluate the quality of potential college, postsecondary education, and training courses; evaluate the total cost of these programs; and analyze the advantages and disadvantages of various sources of funds to pay for their education.

PSYCHOLOGY

WISD #: 64620000

TIER 2

Grades: 11-12

.05 Credit

Prerequisite:

Students study topics such as theories of human development, personality, motivation, and learning.

PSYCHOLOGY DUAL CREDIT

WISD #: 64620D00

TIER 1

Grades: 11-12

.05 Credit

Prerequisite: Qualifying TSI scores in ELA and Math

This is an introductory course dealing with the elementary principles of human behavior. It is designed especially for those students majoring in the social or biological science, pre-medicine, or education. Students successfully completing this course will receive 3 credit hours from Lone Star College for PSYC 2301.

PSYCHOLOGY AP

WISD #: 64620A00

TIER 1

Grades: 11-12

0.5 Credit

Prerequisite:

AP Psychology introduces students to the systematic and scientific study of human behavior and mental processes. While considering the studies that have shaped the field, students explore and apply psychological theories, key concepts, and phenomena associated with major units of study, including biological bases of behavior, cognition, development, learning, social psychology, personality, and mental and physical health. Throughout the course, students apply psychological concepts and employ psychological research methods and data interpretation to evaluate claims, consider evidence, and effectively communicate ideas.

SOCIOLOGY

WISD #: 64610000

TIER 2

Grades: 09-12

.05 Credit

Prerequisite:

This course is designed to provide the study of information and understanding of the American people, their culture, and interactions. Content includes both the individual and family and how society affects each.

Appendix - CTE Programs of Study & 4 Year Plans

Revised—May 2024



Agriculture, Food, and Natural Resources Career Cluster

The Agriculture, Food, and Natural Resources (AFNR) career cluster focuses on the essential elements of life, food, water, land, and air. This career cluster includes occupations ranging from farmer, rancher, and veterinarian to geologist, land conservationist, and florist.

Statewide Program of Study: **Animal Science**

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



Secondary Courses for High School Credit

Level 1 • Principles of Agriculture, Food, and Natural Resources

Level 2 • Small Animal Management
• Equine Science

Level 3 • Livestock Production

Level 4 • Advanced Animal Science
• Veterinary Medical Applications
• Practicum in Agriculture, Food, and Natural Resources
• Scientific Research and Design



Example Postsecondary Opportunities

Apprenticeships

- Reproduction Technician

Associate Degrees

- Biological and Physical Sciences
- Entomology

Bachelor's Degrees

- Animal Science
- Zoology/Animal Biology

Master's, Doctoral, and Professional Degrees

- Marine Sciences
- Biotechnology

Additional Stackable IBCs/License

- Veterinarian
- Certified Veterinary Technician



Aligned Advanced Academic Courses

AP or IB	AP Biology
Dual Credit	DC Biology – Scientific Research and Design

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

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	<ul style="list-style-type: none">• Shadow an animal scientist in a biology lab to learn about applying science to understand animals and wildlife• Intern in a veterinary clinic, caring for animals and wildlife being treated in the clinic
Expanded Learning Opportunities	<ul style="list-style-type: none">• Participate in an FFA career, leadership, and speaking contest like an agriscience fair• Attend an agricultural industry seminar

Aligned Industry-Based Certifications

- Certified Veterinary Assistant, Level I
- Elanco Fundamentals of Animal Science Certification
- Elanco Veterinary Medical Applications Certification
- Equine Management and Evaluation Certification



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



Example Aligned Occupations

Veterinary Assistants and Laboratory Animal Caretakers

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

Veterinary Technologists and Technicians

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

Veterinarian

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

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

For more information visit:

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



Appendix - CTE Programs of Study & 4 Year Plans

Animal Science 4 Year Plan

9th Grade English I Algebra I Biology World Geography Foreign Language Fine Art or P.E. Principles of Ag, Food & Natural Resources	10th Grade English II Geometry Chemistry/IPC World History Foreign Language Fine Art or P.E. Elective Equine Science/Small Animal Management
11th Grade English III Algebra II 3rd year Science U.S. History Livestock Production Veterinary Medical Applications Elective Elective	12th Grade English IV 4th year Math 4th year Science Government/Economics Advanced Animal Science Practicum in Ag, Food & Natural Resources Elective

3rd/4th Year Science AP Biology DC Biology (Scientific Research & Design) Physics AP Physics Anatomy & Physiology DC Anatomy & Physiology Aquatic Science Astronomy DC Biotechnology Earth Systems Science AP Environmental Science Forensic Science	4th Year Math Advanced Quantitative Reasoning DC College Algebra AP Statistics DC Statistics Precalculus DC Precalculus DC Business Calculus DC Calculus AP Calculus
---	--

Notes

IBCs available: Certified Veterinary Assistant (must take Vet Med Apps and Practicum of AFNR); Fundamentals of Animal Science (must take Advanced Animal Science); Veterinary Medical Applications (must take Vet Med Apps); Equine Management and Evaluation (must take Equine Science)

Appendix - CTE Programs of Study & 4 Year Plans

Revised—May 2024



Agriculture, Food, and Natural Resources Career Cluster

The Agriculture, Food, and Natural Resources (AFNR) career cluster focuses on the essential elements of life, food, water, land, and air. This career cluster includes occupations ranging from farmer, rancher, and veterinarian to geologist, land conservationist, and florist.

Statewide Program of Study: *Environmental and Natural Resources*

The Environmental and Natural Resources program of study focuses on occupational and educational opportunities associated with the research, design, and engineering of plans for prevention and control of environmental hazards. This program of study includes conducting research for the purpose of identifying, abating, or eliminating sources of pollutants or hazards that affect either the environment or the health of the population.



Secondary Courses for High School Credit

Level 1 • Principles of Agriculture, Food, and Natural Resources

Level 2 • Wildlife, Fisheries, and Ecology Management

Level 3 • Range Ecology and Management

Level 4 • Practicum in Agriculture, Food, and Natural Resources
• Scientific Research and Design

Aligned Advanced Academic Courses

AP or IB	AP Biology
Dual Credit	DC Biology – Scientific Research and Design

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

Work-Based Learning and Expanded Learning Opportunities

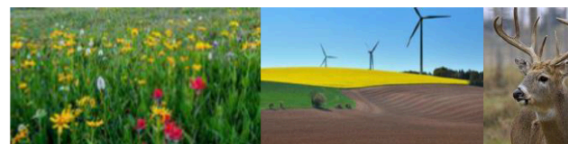
Work-Based Learning Activities	<ul style="list-style-type: none">Intern in an environmental services office in local government to learn about sanitation and waste managementParticipate in a water treatment plant operator apprenticeship at a local water management company
Expanded Learning Opportunities	<ul style="list-style-type: none">Participate in an FFA career, leadership, and speaking contest like an agriscience fairAttend an agricultural industry seminar

Aligned Industry-Based Certifications

- Ducks Unlimited Ecology Conservation and Management Certification



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



Example Postsecondary Opportunities

Apprenticeships

- Water Treatment Plant Operator



Associate Degrees

- Environmental/Environmental Engineering Technology
- Water Quality and Wastewater Treatment Management and Recycling Technology

Bachelor's Degrees

- Environmental Engineering
- Environmental Health

Master's, Doctoral, and Professional Degrees

- Biology/Biological Sciences
- Ecology

Additional Stackable IBCs/License

- Pesticide Dealer License



Example Aligned Occupations

Environmental Engineering Technologists and Technicians

Median Wage: \$48,124
Annual Openings: 186
10-Year Growth: 18%

Environmental Scientists and Specialists

Median Wage: \$75,421
Annual Openings: 731
10-Year Growth: 25%

Environmental Engineers

Median Wage: \$103,246
Annual Openings: 316
10-Year Growth: 18%

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



For more information visit:

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

Appendix - CTE Programs of Study & 4 Year Plans

Environmental and Natural Resources 4 Year Plan

9th Grade English I Algebra I Biology World Geography Foreign Language Fine Art or P.E. Principles of Ag, Food & Natural Resources	10th Grade English II Geometry Chemistry/IPC World History Foreign Language Fine Art or P.E. Wildlife, Fisheries, and Ecology Management Elective
11th Grade English III Algebra II 3rd year Science U.S. History Range Ecology and Management Elective Elective Elective	12th Grade English IV 4th year Math 4th year Science Government/Economics Practicum in Ag, Food & Natural Resources Elective Elective

3rd/4th Year Science AP Biology DC Biology (Scientific Research & Design) Physics AP Physics Anatomy & Physiology DC Anatomy & Physiology Aquatic Science Astronomy DC Biotechnology Earth Systems Science AP Environmental Science Forensic Science	4th Year Math Advanced Quantitative Reasoning DC College Algebra AP Statistics DC Statistics Precalculus DC Precalculus DC Business Calculus DC Calculus AP Calculus
---	--

Notes

IBCs available: Ducks Unlimited Ecology Conservation and Management

Appendix - CTE Programs of Study & 4 Year Plans

Revised–May 2024



Agriculture, Food, and Natural Resources Career Cluster

The Agriculture, Food, and Natural Resources (AFNR) career cluster focuses on the essential elements of life, food, water, land, and air. This career cluster includes occupations ranging from farmer, rancher, and veterinarian to geologist, land conservationist, and florist.

Statewide Program of Study: Plant Science

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

Secondary Courses for High School Credit



Level 1 • Principles of Agriculture, Food, and Natural Resources

Level 2 • Greenhouse Operation and Production

Level 3 • Horticultural Science
• Floral Design

Level 4 • Advanced Floral Design
• Practicum in Agriculture, Food, and Natural Resources
• Scientific Research and Design

Aligned Advanced Academic Courses

AP or IB	AP Biology	AP Chemistry
----------	------------	--------------

Dual Credit DC Biology – Scientific Research and Design

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

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	<ul style="list-style-type: none">Work in a part-time job at a landscaping company to learn about production and management of plants.Intern at an agricultural research company, working alongside a biological technician to learn about application of biology to plant production
Expanded Learning Opportunities	<ul style="list-style-type: none">Participate in an FFA career, leadership, and speaking contest like an agriscience fairParticipate in an industry-related competition like an agriscience fair

Aligned Industry-Based Certifications

- BASF Plant Science Certification
- Texas State Florists' Association Knowledge Based Floral Certification
- Texas State Florists' Association Level I Floral Certification



Example Postsecondary Opportunities

Apprenticeships

- Horticulturist

Associate Degrees

- Biology/Biological Sciences
- Biological and Physical Sciences

Bachelor's Degrees

- Horticulture
- Plant Pathology/Phytopathology

Master's, Doctoral, and Professional Degrees

- Plant Breeding
- Botany/Plant Biology

Additional Stackable IBCs/License

- Nursery Floral License
- Horticulturist Certification



Example Aligned Occupations

Pesticide Handlers, Sprayers, and Applicators, Vegetation

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

Biological Technicians

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

Farmers, Ranchers, and Other Agricultural Managers

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

Plant Science

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



For more information visit:

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



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

Appendix - CTE Programs of Study & 4 Year Plans

Plant Science 4 Year Plan

9th Grade English I Algebra I Biology World Geography Foreign Language Fine Art or P.E. Principles of Ag, Food & Natural Resources	10th Grade English II Geometry Chemistry/IPC World History Foreign Language Fine Art or P.E. Greenhouse Production Elective
11th Grade English III Algebra II 3rd year Science U.S. History Horticultural Science Floral Design Elective Elective	12th Grade English IV 4th year Math 4th year Science Government/Economics Advanced Floral Design Elective Elective Elective

3rd/4th Year Science AP Biology DC Biology (Scientific Research & Design) Physics AP Physics Anatomy & Physiology DC Anatomy & Physiology Aquatic Science Astronomy DC Biotechnology Earth Systems Science AP Environmental Science Forensic Science	4th Year Math Advanced Quantitative Reasoning DC College Algebra AP Statistics DC Statistics Precalculus DC Precalculus DC Business Calculus DC Calculus AP Calculus
---	--

Notes

IBCs available: BASF Plant Science Certification; Texas State Florists' Association Knowledge Based Floral Certification; Texas State Florists' Association Level I Floral Certification

Appendix - CTE Programs of Study & 4 Year Plans

Revised–May 2024



Architecture and Construction Career Cluster

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

Statewide Program of Study: Architectural Drafting and Design

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



Secondary Courses for High School Credit

- | | |
|---------|-------------------------------------|
| Level 1 | • Principles of Construction |
| Level 2 | • Architectural Design I |
| Level 3 | • Architectural Design II |
| Level 4 | • Practicum in Architectural Design |



Example Postsecondary Opportunities

Apprenticeships

- Drafter



Associate Degrees

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

Bachelor's Degrees

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

Master's, Doctoral, and Professional Degrees

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

Aligned Advanced Academic Courses

Dual Credit

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

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	<ul style="list-style-type: none">• Intern at an architectural firm to develop CADD drafting and design technology skills• Shadow a civil engineer to learn more about their day-to-day responsibilities
Expanded Learning Opportunities	<ul style="list-style-type: none">• Conduct an informational interview with an architect to learn about their role and responsibilities• Participate in SkillsUSA or TSA

Aligned Industry-Based Certifications

- Autodesk Associate (Certified User) 3ds MAX
- Autodesk Associate (Certified User) AutoCAD
- Autodesk Associate (Certified User) Fusion 360
- Autodesk Associate (Certified User) Revit Architecture
- Autodesk Associate (Certified User) Revit for Electrical
- Autodesk Associate (Certified User) Revit for Structural Design



Example Aligned Occupations

Architectural and Civil Drafters

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

Architects

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

Construction Managers

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



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

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



For more information visit:

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

Appendix - CTE Programs of Study & 4 Year Plans

Architectural Drafting and Design 4 Year Plan

9th Grade English I Algebra I Biology World Geography Foreign Language Fine Art or P.E. Principles of Construction	10th Grade English II Geometry Chemistry/IPC World History Foreign Language Fine Art or P.E. Architectural Design I Elective
11th Grade English III Algebra II 3rd year Science U.S. History Architectural Design II Elective Elective	12th Grade English IV 4th year Math 4th year Science Government/Economics Practicum in Architectural Design Elective Elective

3rd/4th Year Science AP Biology DC Biology (Scientific Research & Design) Physics AP Physics Anatomy & Physiology DC Anatomy & Physiology Aquatic Science Astronomy DC Biotechnology Earth Systems Science AP Environmental Science Forensic Science	4th Year Math Advanced Quantitative Reasoning DC College Algebra AP Statistics DC Statistics Precalculus DC Precalculus DC Business Calculus DC Calculus AP Calculus
---	--

Notes

IBCs available: NCCER Core; Autodesk Associate (Certified User)

Appendix - CTE Programs of Study & 4 Year Plans

Revised–May 2024



Architecture and Construction Career Cluster

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

Statewide Program of Study: Carpentry

The Carpentry program of study focuses on occupational and educational opportunities related to constructing, installing, and repairing structures and fixtures made of wood (including frameworks, partitions, joists, studding, rafters, and stairways). The program of study includes installing, dismantling, or moving machinery and heavy equipment according to layout plans, blueprints, or other drawings.



Secondary Courses for High School Credit

- | | |
|---------|--|
| Level 1 | • Principles of Construction |
| Level 2 | • Construction Technology I |
| Level 3 | • Construction Technology II |
| Level 4 | • Practicum in Construction Technology |



Example Postsecondary Opportunities

Apprenticeships

- Carpenter

Associate Degrees

- Construction Management
- Construction Engineering Technology
- Building Construction Technology

Bachelor's Degrees

- Construction Engineering
- Construction Science
- Construction Site Management

Master's, Doctoral, and Professional Degrees

- Construction Engineering Technology
- Construction Engineering
- Construction Management
- Project Management



Aligned Advanced Academic Courses

Dual Credit

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

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities

- Intern with a carpenter to practice skills such as measuring materials and assembling structures
- Participate in a pre-apprenticeship that includes activities like installing cabinets, drywall, and siding

Expanded Learning Opportunities

- Shadow a construction manager to learn more about how construction teams work together to complete projects
- Participate in SkillsUSA

Aligned Industry-Based Certifications

- NCCER Carpentry Level I
- NCCER Carpentry Level II
- NCCER Construction Technology Certification Level I
- NCCER Core



Example Aligned Occupations

Drywall and Ceiling Tile Installers

Median Wage: \$44,699
Annual Openings: 758
10-Year Growth: 14%

Carpenters

Median Wage: \$46,272
Annual Openings: 5,623
10-Year Growth: 15%

Construction Managers

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

Carpentry



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

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



For more information visit:

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

Appendix - CTE Programs of Study & 4 Year Plans

Carpentry 4 Year Plan

9th Grade English I Algebra I Biology World Geography Foreign Language Fine Art or P.E. Principles of Construction	10th Grade English II Geometry Chemistry/IPC World History Foreign Language Fine Art or P.E. Construction Technology I
11th Grade English III Algebra II 3rd year Science U.S. History Construction Technology II Elective Elective	12th Grade English IV 4th year Math 4th year Science Government/Economics Practicum in Construction Technology Elective Elective
3rd/4th Year Science AP Biology DC Biology (Scientific Research & Design) Physics AP Physics Anatomy & Physiology DC Anatomy & Physiology Aquatic Science Astronomy DC Biotechnology Earth Systems Science AP Environmental Science Forensic Science	4th Year Math Advanced Quantitative Reasoning DC College Algebra AP Statistics DC Statistics Precalculus DC Precalculus DC Business Calculus DC Calculus AP Calculus

Notes

IBCs available: NCCER Core; NCCER Carpentry Level I; NCCER Carpentry Level II; NCCER Construction Technology Level I

Appendix - CTE Programs of Study & 4 Year Plans

Revised—May 2024



Architecture and Construction Career Cluster

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

Statewide Program of Study: *Plumbing and Pipefitting*

The Plumbing and Pipefitting program of study focuses on occupational and educational opportunities related to assembling, installing, and repairing pipes, fittings, or fixtures of heating, water, and drainage systems. The program of study includes maintaining pipe supports and related hydraulic or pneumatic equipment for steam, hot water, heating, cooling, lubricating, and sprinkling.



Secondary Courses for High School Credit

Level 1	<ul style="list-style-type: none">Principles of ConstructionIntroduction to Welding
Level 2	<ul style="list-style-type: none">Plumbing Technology I
Level 3	<ul style="list-style-type: none">Plumbing Technology II
Level 4	<ul style="list-style-type: none">Practicum in Construction Technology



Example Postsecondary Opportunities

Apprenticeships

- Plumber
- Pipefitter



Associate Degrees

- Pipefitting/Pipefitter and Sprinkler Fitter
- Construction Site Management
- Plumbing Technology
- Property Maintenance

Bachelor's Degrees

- Construction Engineering
- Construction Management

Master's, Doctoral, and Professional Degrees

- Construction Engineering
- Construction Management

Additional Stackable IBCs/License

- Journeyman Plumber
- Master Plumber

Aligned Advanced Academic Courses

Dual Credit

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

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities

- Complete a pre-apprenticeship in plumbing or pipefitting to develop skills in assembling, installing, and repairing pipes
- Shadow a plumber who is repairing and drainage systems

Expanded Learning Opportunities

- Participate in SkillsUSA
- Tour apprenticeship programs

Aligned Industry-Based Certifications

- NCCER Core
- NCCER Plumbing Level I
- NCCER Plumbing Level II



Example Aligned Occupations

Helpers—Pipelayers, Plumbers, Pipefitters, and Steamfitters

Median Wage: \$36,352
Annual Openings: 1,482
10-Year Growth: 26%

Plumbers, Pipefitters, and Steamfitters

Median Wage: \$55,804
Annual Openings: 5,751
10-Year Growth: 22%

Construction Managers

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

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

For more information visit:

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



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

Appendix - CTE Programs of Study & 4 Year Plans

Plumbing and Pipefitting 4 Year Plan

9th Grade English I Algebra I Biology World Geography Foreign Language Fine Art or P.E. Principles of Construction	10th Grade English II Geometry Chemistry/IPC World History Foreign Language Fine Art or P.E. Plumbing Technology I Elective
11th Grade English III Algebra II 3rd year Science U.S. History Plumbing Technology II Elective Elective	12th Grade English IV 4th year Math 4th year Science Government/Economics Practicum in Construction Technology Elective Elective

3rd/4th Year Science AP Biology DC Biology (Scientific Research & Design) Physics AP Physics Anatomy & Physiology DC Anatomy & Physiology Aquatic Science Astronomy DC Biotechnology Earth Systems Science AP Environmental Science Forensic Science	4th Year Math Advanced Quantitative Reasoning DC College Algebra AP Statistics DC Statistics Precalculus DC Precalculus DC Business Calculus DC Calculus AP Calculus
---	--

Notes

IBCs available: NCCER Core; NCCER Plumbing Level I; NCCER Plumbing Level II

Appendix - CTE Programs of Study & 4 Year Plans

Revised—May 2024



Arts, Audio Visual Technology, and Communication Career Cluster

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

Statewide Program of Study: *Digital Communications*

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



Secondary Courses for High School Credit

Level 1

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

Level 2

- Audio/Video Production I
- Audio/Video Production I + Audio/Video Production I Lab
- Digital Audio Technology I

Level 3

- Audio/Video Production II
- Audio/Video Production II + Audio/Video Production II Lab
- Digital Audio Technology II

Level 4

- Practicum in Audio/Video Production



Example Postsecondary Opportunities

Apprenticeships

- Light Technician

Associate Degrees

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

Bachelor's Degrees

- Cinematography and Film/Video Production
- Recording Arts Technology

Master's, Doctoral, and Professional Degrees

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

Additional Stackable IBCs/License

- CompTIA Digital Media and Entertainment Professional Certification (DMEP)



Aligned Advanced Academic Courses

AP or IB

Dual Credit

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

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities

- Shadow a sound designer to learn how sound and foley are created for movies or podcasts
- Intern with a technical director at a sports team, recording studio, or radio station
- Shadow a technician on a live news broadcast, concert, or other event

Expanded Learning Opportunities

- Participate in SkillsUSA or TSA
- Participate in Student Television Network
- Capture and edit film and audio for a podcast with a local community organization

Aligned Industry-Based Certifications

- Adobe Certified Professional in Digital Video Using Adobe Premiere Pro
- Adobe Certified Professional in Print and Digital Media Publication Using Adobe InDesign
- Adobe Certified Professional in Visual Design
- Adobe Certified Professional in Visual Design Using Adobe Photoshop



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



Example Aligned Occupations

Camera Operators, Television, Video, and Film

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

Audio and Video Technicians

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

Producers and Directors

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

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



For more information visit:

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

Appendix - CTE Programs of Study & 4 Year Plans

Digital Communications 4 Year Plan

9th Grade English I Algebra I Biology World Geography Foreign Language Fine Art or P.E. Principles of Arts, A/V Tech, and Comm.	10th Grade English II Geometry Chemistry/IPC World History Foreign Language Fine Art or P.E. A/V Production I or Digital Audio Tech I Elective
11th Grade English III Algebra II 3rd year Science U.S. History A/V Production II or Digital Audio Tech II Elective Elective	12th Grade English IV 4th year Math 4th year Science Government/Economics Practicum in A/V Production Elective Elective

3rd/4th Year Science AP Biology DC Biology (Scientific Research & Design) Physics AP Physics Anatomy & Physiology DC Anatomy & Physiology Aquatic Science Astronomy DC Biotechnology Earth Systems Science AP Environmental Science Forensic Science	4th Year Math Advanced Quantitative Reasoning DC College Algebra AP Statistics DC Statistics Precalculus DC Precalculus DC Business Calculus DC Calculus AP Calculus
---	--

Notes

IBCs available: Adobe Certified Professional

Appendix - CTE Programs of Study & 4 Year Plans

Revised—May 2024



Arts, Audio Visual Technology, and Communication Career Cluster

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

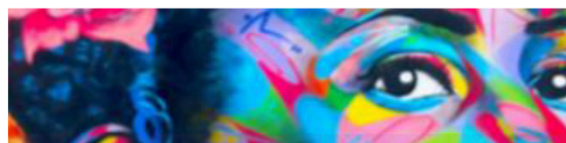
Statewide Program of Study: *Graphic Design and Interactive Media*

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



Secondary Courses for High School Credit

Level 1	<ul style="list-style-type: none">Principles of Arts, Audio/Video Technology, and CommunicationsVideo Game Design
Level 2	<ul style="list-style-type: none">Animation ICommercial Photography ICommercial Photography I + Commercial Photography I LabFashion Design IFashion Design I + Fashion Design I Lab
Level 3	<ul style="list-style-type: none">Animation IICommercial Photography IICommercial Photography II + Commercial Photography II LabFashion Design IIFashion Design II + Fashion Design II Lab3-D Modeling and Animation (Middle School only)
Level 4	<ul style="list-style-type: none">Practicum in AnimationPracticum in Commercial PhotographyPracticum in Fashion Design



Example Postsecondary Opportunities

Associate Degrees

- Graphic Design
- Digital Arts



Bachelor's Degrees

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

Master's, Doctoral, and Professional Degrees

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

Additional Stackable IBCs/License

- Certified Textile Designer (CTD)

Aligned Advanced Academic Courses

AP or IB	AP Studio Art: Two-Dimensional Design Portfolio
Dual Credit	Dual credit offerings will vary by local education agency.

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

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	<ul style="list-style-type: none">Shadow an art director at a branding firm or design agencyIntern in the marketing and communications department of a technology company
Expanded Learning Opportunities	<ul style="list-style-type: none">Participate in SkillsUSA or TSAParticipate in Student Television NetworkJoin a related co-curricular or extracurricular club such as web development or computer coding

Aligned Industry-Based Certifications

- Adobe Certified Professional in Digital Video Using Adobe Premiere Pro
- Adobe Certified Professional in Graphic Design and Illustration Using Adobe Illustrator
- Adobe Certified Professional in Print and Digital Media Publication Using Adobe InDesign
- Adobe Certified Professional in Visual Design
- Adobe Certified Professional in Visual Design Using Adobe Photoshop
- Adobe Certified Professional in Visual Effects and Motion Graphics Using Adobe After Effects
- Autodesk Associate (Certified User) 3ds MAX Certified User: Programmer



Example Aligned Occupations

Software Developers

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

Graphic Designers

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

Art Directors

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



Appendix - CTE Programs of Study & 4 Year Plans

Graphic Design and Interactive Media 4 Year Plan

9th Grade English I Algebra I Biology World Geography Foreign Language Fine Art or P.E. Principles of Arts, A/V Tech, and Comm. <i>or</i> Video Game Design	10th Grade English II Geometry Chemistry/IPC World History Foreign Language Fine Art or P.E. Animation I <i>or</i> Commercial Photography I <i>or</i> Fashion Design I Elective
11th Grade English III Algebra II 3rd year Science U.S. History Animation II <i>or</i> Commercial Photography II <i>or</i> Fashion Design II Lab Elective Elective	12th Grade English IV 4th year Math 4th year Science Government/Economics Practicum in Animation <i>or</i> Commercial Photography <i>or</i> Fashion Design Elective Elective
3rd/4th Year Science AP Biology DC Biology (Scientific Research & Design) Physics AP Physics Anatomy & Physiology DC Anatomy & Physiology Aquatic Science Astronomy DC Biotechnology Earth Systems Science AP Environmental Science Forensic Science	4th Year Math Advanced Quantitative Reasoning DC College Algebra AP Statistics DC Statistics Precalculus DC Precalculus DC Business Calculus DC Calculus AP Calculus

Notes

IBCs available: Adobe Certified Professional; Autodesk Associate; Unity Certified User; Programmer

Appendix - CTE Programs of Study & 4 Year Plans

Revised—June 2024



Business, Marketing, and Finance Career Cluster

The Business, Marketing, and Finance career cluster focuses on careers in planning, organizing, directing, and evaluating business functions essential to efficient and productive business operations. This career cluster includes occupations ranging from business owner and entrepreneur to accountant, retail manager, and market analyst.

Statewide Program of Study: **Accounting and Financial Services**

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



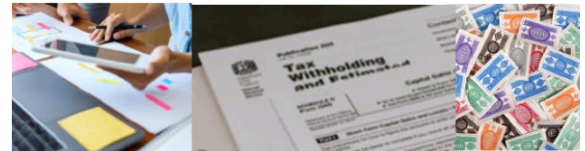
Secondary Courses for High School Credit

- Level 1**
- Principles of Business, Marketing, and Finance
 - Business Information Management I

- Level 2**
- Accounting I
 - Entrepreneurship I

- Level 3**
- Accounting II

- Level 4**
- Practicum in Business Management



Example Postsecondary Opportunities

Associate Degrees

- Accounting
- Bookkeeping

Bachelor's Degrees

- Accounting
- Banking and Financial Support Services

Master's, Doctoral, and Professional Degrees

- Business Administration and Management
- Finance

Additional Stackable IBCs/License

- Project Management Professional
- Property Tax Consultants Service Contract Providers



Aligned Advanced Academic Courses

AP or IB	
Dual Credit	DC Statistics

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

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	<ul style="list-style-type: none">• Intern with a certified public accountant (CPA) at a local business• Intern with a city or county auditor's office• Shadow a financial advisor as an intern at an investment company
Expanded Learning Opportunities	<ul style="list-style-type: none">• Participate in BPA, DECA, or FBLA• Explore student membership in professional organizations such as AICPA, CIMA, or TXCPA

Aligned Industry-Based Certifications

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



Example Aligned Occupations

Tax Preparers

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

Accountants and Auditors

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

Personal Financial Advisors

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

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



For more information visit:

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



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

Appendix - CTE Programs of Study & 4 Year Plans

Accounting and Financial Services 4 Year Plan

9th Grade English I Algebra I Biology World Geography Foreign Language Fine Art or P.E. Principles of Business, Marketing & Finance	10th Grade English II Geometry Chemistry/IPC World History Foreign Language Fine Art or P.E. Accounting I Elective
11th Grade English III Algebra II 3rd year Science U.S. History Accounting II Elective Elective Elective	12th Grade English IV 4th year Math 4th year Science Government/Economics Practicum in Business Management Elective Elective

3rd/4th Year Science AP Biology DC Biology (Scientific Research & Design) Physics AP Physics Anatomy & Physiology DC Anatomy & Physiology Aquatic Science Astronomy DC Biotechnology Earth Systems Science AP Environmental Science Forensic Science	4th Year Math Advanced Quantitative Reasoning DC College Algebra AP Statistics DC Statistics Precalculus DC Precalculus DC Business Calculus DC Calculus AP Calculus
---	--

Notes

IBCs available: Microsoft Office Specialist: Excel

Appendix - CTE Programs of Study & 4 Year Plans

Revised—June 2024



Business, Marketing, and Finance Career Cluster

The Business, Marketing, and Finance career cluster focuses on careers in planning, organizing, directing, and evaluating business functions essential to efficient and productive business operations. This career cluster includes occupations ranging from business owner and entrepreneur to accountant, retail manager, and market analyst.

Statewide Program of Study: **Business Management**

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



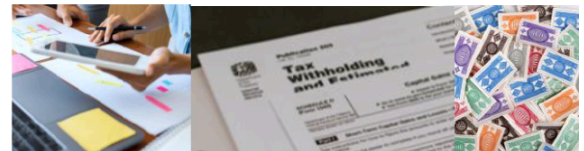
Secondary Courses for High School Credit

- Level 1**
- Principles of Business, Marketing, and Finance
 - Business Information Management I

- Level 2**
- Business Information Management II
 - Entrepreneurship I

- Level 3**
- Business Management

- Level 4**
- Practicum in Business Management



Example Postsecondary Opportunities

Associate Degrees

- Business Administration and Management
- Human Resources Management

Bachelor's Degrees

- Business Analytics
- Accounting and Business

Master's, Doctoral, and Professional Degrees

- Business Administration and Management
- Organizational Leadership

Additional Stackable IBCs/License

- Professional Certificate in Team Leadership
- Property Tax Professionals



Aligned Advanced Academic Courses

AP or IB	AP Microeconomics
Dual Credit	

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

Work-Based Learning and Expanded Learning Opportunities

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

Aligned Industry-Based Certifications

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



Example Aligned Occupations

First-Line Supervisors of Administrative Support Workers

Median Wage: \$59,585
Annual Openings: 13,885
10-Year Growth: 9%

Human Resources Specialists

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

General and Operations Managers

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

Business Management



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

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



For more information visit:

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

Appendix - CTE Programs of Study & 4 Year Plans

Business Management 4 Year Plan

9th Grade English I Algebra I Biology World Geography Foreign Language Fine Art or P.E. Principles of Business, Marketing & Finance	10th Grade English II Geometry Chemistry/IPC World History Foreign Language Fine Art or P.E. Business Information Management I Elective
11th Grade English III Algebra II 3rd year Science U.S. History Business Information Management II Business Management Entrepreneurship Elective	12th Grade English IV 4th year Math 4th year Science Government/Economics Practicum in Business Management Elective Elective

3rd/4th Year Science AP Biology DC Biology (Scientific Research & Design) Physics AP Physics Anatomy & Physiology DC Anatomy & Physiology Aquatic Science Astronomy DC Biotechnology Earth Systems Science AP Environmental Science Forensic Science	4th Year Math Advanced Quantitative Reasoning DC College Algebra AP Statistics DC Statistics Precalculus DC Precalculus DC Business Calculus DC Calculus AP Calculus
---	--

Notes

IBCs available: Microsoft Office Specialist: Word

Appendix - CTE Programs of Study & 4 Year Plans

Revised—June 2024



Business, Marketing, and Finance Career Cluster

The Business, Marketing, and Finance career cluster focuses on careers in planning, organizing, directing, and evaluating business functions essential to efficient and productive business operations. This career cluster includes occupations ranging from business owner and entrepreneur to accountant, retail manager, and market analyst.

Statewide Program of Study: **Marketing and Sales**

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



Secondary Courses for High School Credit

Level 1 • Principles of Business, Marketing, and Finance

Level 2 • Entrepreneurship I
• Sports and Entertainment Marketing

Level 3 • Fundamentals of Real Estate
• Social Media Marketing

Level 4 • Practicum in Marketing



Example Postsecondary Opportunities

Associate Degrees

- Marketing/Marketing Management
- Retail Management



Bachelor's Degrees

- Business Administration
- Marketing/Marketing Management
- Fashion Merchandising

Master's, Doctoral, and Professional Degrees

- Business Administration
- Applied Economics
- Business Analytics

Additional Stackable IBCs/License

- Salesforce
- Service Contract Providers



Example Aligned Occupations

Retail Salespersons

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

Market Research Analysts

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

Sales Managers

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

Aligned Advanced Academic Courses

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

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

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	<ul style="list-style-type: none">• Intern at a marketing and advertising company• Job shadow a pharmaceutical sales representative• Intern at a local retail company
Expanded Learning Opportunities	<ul style="list-style-type: none">• Job shadow an account representative at a marketing firm• Participate in BPA, DECA, FBLA, or related UIL events

Aligned Industry-Based Certifications

- Student Social Media Marketing Certification
- Real Estate Sales Agent License



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

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



For more information visit:

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

Appendix - CTE Programs of Study & 4 Year Plans

Marketing and Sales 4 Year Plan

9th Grade English I Algebra I Biology World Geography Foreign Language Fine Art or P.E. Principles of Business, Marketing & Finance	10th Grade English II Geometry Chemistry/IPC World History Foreign Language Fine Art or P.E. Sports and Ent. Marketing/Social Media Marketing Elective
11th Grade English III Algebra II 3rd year Science U.S. History Fundamentals of Real Estate Entrepreneurship Elective	12th Grade English IV 4th year Math 4th year Science Government/Economics Practicum in Marketing Elective Elective

3rd/4th Year Science AP Biology DC Biology (Scientific Research & Design) Physics AP Physics Anatomy & Physiology DC Anatomy & Physiology Aquatic Science Astronomy DC Biotechnology Earth Systems Science AP Environmental Science Forensic Science	4th Year Math Advanced Quantitative Reasoning DC College Algebra AP Statistics DC Statistics Precalculus DC Precalculus DC Business Calculus DC Calculus AP Calculus
---	--

Notes

IBCs available: Stukent Social Media Marketing; Real Estate Sales Agent License

Appendix - CTE Programs of Study & 4 Year Plans

Revised–May 2024



Education and Training Career Cluster

The Education and Training career cluster focuses on planning, managing, and providing education and training services and related learning support services. This career cluster includes occupations ranging from teaching assistant and classroom teacher to school administrator.

Statewide Program of Study: Early Learning

The Early Learning program of study focuses on occupational and educational opportunities associated with instructing and supporting preschool and early elementary school students. This program of study addresses social, physical, and intellectual growth and skills necessary for planning, directing, and coordinating activities for young children.

Secondary Courses for High School Credit



Level 1 • Principles of Education and Training

Level 2 • Child Development

Level 3 • Child Guidance

Level 4 • Practicum in Early Learning



Example Postsecondary Opportunities

Apprenticeships

- Child Care Development Specialist

Associate Degrees

- Teacher Education, Multiple Levels
- Child Care Provider/Assistant

Bachelor's Degrees

- Elementary Education and Teaching
- Early Childhood and Family Studies

Master's, Doctoral, and Professional Degrees

- Educational Leadership and Administration, General
- Education, General

Additional Stackable IBCs/License

- Certified Child Care Professional



Aligned Advanced Academic Courses

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

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

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities

- Serve as a summer camp counselor for pre-school or kindergarten students
- Serve as a teaching assistant at a lab school or daycare

Expanded Learning Opportunities

- Participate in FCCLA
- Participate in TAFE

Aligned Industry-Based Certifications

- Educational Aide I



Example Aligned Occupations

Child Care Workers

Median Wage: \$23,528
Annual Openings: 12,823
10-Year Growth: 17%

Preschool Teachers, Except Special Education

Median Wage: \$24,127
Annual Openings: 4,148
10-Year Growth: 26%

Elementary School Teachers, Except Special Education

Median Wage: \$61,389
Annual Openings: 11,712
10-Year Growth: 13%

Early Learning



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

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



For more information visit:

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

Appendix - CTE Programs of Study & 4 Year Plans

Early Learning 4 Year Plan

9th Grade English I Algebra I Biology World Geography Foreign Language Fine Art or P.E. Principles of Education & Training	10th Grade English II Geometry Chemistry/IPC World History Foreign Language Fine Art or P.E. Child Development Elective
11th Grade English III Algebra II 3rd year Science U.S. History Child Guidance Elective Elective	12th Grade English IV 4th year Math 4th year Science Government/Economics Practicum in Early Learning Elective Elective

3rd/4th Year Science AP Biology DC Biology (Scientific Research & Design) Physics AP Physics Anatomy & Physiology DC Anatomy & Physiology Aquatic Science Astronomy DC Biotechnology Earth Systems Science AP Environmental Science Forensic Science	4th Year Math Advanced Quantitative Reasoning DC College Algebra AP Statistics DC Statistics Precalculus DC Precalculus DC Business Calculus DC Calculus AP Calculus
---	--

Notes

IBCs available: Educational Aide I

Appendix - CTE Programs of Study & 4 Year Plans

Revised—May 2024



Education and Training Career Cluster

The Education and Training career cluster focuses on planning, managing, and providing education and training services and related learning support services. All parts of courses are designed to introduce learners to the various careers available within the Education and Training career cluster. This career cluster includes a diverse spectrum of occupations, ranging from teaching assistant, classroom teacher, to school administrator.

Statewide Program of Study: Teaching and Training

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



Secondary Courses for High School Credit

Level 1 • Principles of Education and Training

Level 2 • Child Development

Level 3 • Instructional Practices

Level 4 • Practicum in Education and Training

Aligned Advanced Academic Courses

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

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

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities

- Serve as a camp counselor to learn mentoring, facilitation, and lesson planning skills
- Volunteer in a tutoring center to learn lesson planning and skills assessment

Expanded Learning Opportunities

- Participate in FCCLA
- Participate in TAFE

Aligned Industry-Based Certifications

- Educational Aide I



Example Postsecondary Opportunities

Apprenticeships

- Teacher Apprentice

Associate Degrees

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

Bachelor's Degrees

- Elementary Education and Teaching
- Secondary Education and Teaching

Master's, Doctoral, and Professional Degrees

- Educational Leadership and Administration, General
- Curriculum and Instruction

Additional Stackable IBCs/License

- Generalist, Grades EC-4



Example Aligned Occupations

Teaching Assistants, Except Postsecondary

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

Secondary School Teachers, Except Special Education and CTE

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

Education Administrators, Kindergarten through Secondary

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

Teaching and Training



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



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

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

Appendix - CTE Programs of Study & 4 Year Plans

Teaching and Training 4 Year Plan

9th Grade English I Algebra I Biology World Geography Foreign Language Fine Art or P.E. Principles of Education & Training	10th Grade English II Geometry Chemistry/IPC World History Foreign Language Fine Art or P.E. Child Development Elective
11th Grade English III Algebra II 3rd year Science U.S. History Instructional Practices Elective Elective	12th Grade English IV 4th year Math 4th year Science Government/Economics Practicum in Education & Training Elective Elective

3rd/4th Year Science AP Biology DC Biology (Scientific Research & Design) Physics AP Physics Anatomy & Physiology DC Anatomy & Physiology Aquatic Science Astronomy DC Biotechnology Earth Systems Science AP Environmental Science Forensic Science	4th Year Math Advanced Quantitative Reasoning DC College Algebra AP Statistics DC Statistics Precalculus DC Precalculus DC Business Calculus DC Calculus AP Calculus
---	--

Notes

IBCs available: Educational Aide I

Appendix - CTE Programs of Study & 4 Year Plans

Revised-June 2024



Engineering Career Cluster

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

Statewide Program of Study: Engineering Foundations

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



Secondary Courses for High School Credit

- | | |
|---------|--|
| Level 1 | • Principles of Applied Engineering |
| Level 2 | • Robotics I |
| Level 3 | • Engineering Design and Presentation I
• Robotics II |
| Level 4 | • Engineering Design and Presentation II
• Scientific Research and Design |



Example Postsecondary Opportunities

Apprenticeships

- Industrial Engineering Technician Apprenticeship



Associate Degrees

- Manufacturing Engineering Technology/Technician
- Robotics Technology/Technician

Bachelor's Degrees

- Electrical and Electronics Engineering
- Engineering, General

Master's, Doctoral, and Professional Degrees

- Electrical and Electronics Engineering
- Engineering, General

Additional Stackable IBCs/Licensures

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

Aligned Advanced Academic Courses

AP or IB	AP Calculus AB	AP Physics 1 AP Physics 2
----------	----------------	------------------------------

Dual Credit

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

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	<ul style="list-style-type: none">• Intern at an engineering, robotics, or aerospace company.• Visit an engineering firm and shadow multiple types of engineers.
Expanded Learning Opportunities	<ul style="list-style-type: none">• Participate in SkillsUSA or TSA• Join a local engineering association and attend meetings.

Aligned Industry-Based Certifications

- Autodesk Associate (Certified User) AutoCAD
- Autodesk Associate (Certified User) Fusion 360
- Autodesk Associate (Certified User) Inventor for Mechanical Design
- Autodesk Associate (Certified User) Revit Architecture
- Autodesk Associate (Certified User) Revit for Electrical
- Autodesk Associate (Certified User) Revit for Structural Design
- FANUC Robot Operator 1



Example Aligned Occupations

Civil Engineering Technologists and Technicians

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

Aerospace Engineers

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

Mechanical Engineers

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

Engineering Foundations



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

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



For more information visit:

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

Appendix - CTE Programs of Study & 4 Year Plans

Engineering Foundations 4 Year Plan

9th Grade English I Algebra I Biology World Geography Foreign Language Fine Art or P.E. Principles of Applied Engineering	10th Grade English II Geometry Chemistry/IPC World History Foreign Language Fine Art or P.E. Robotics I Elective
11th Grade English III Algebra II 3rd year Science U.S. History Engineering Design and Presentation I Robotics II Elective Elective	12th Grade English IV 4th year Math 4th year Science Government/Economics Engineering Design and Presentation II Elective Elective

3rd/4th Year Science AP Biology DC Biology (Scientific Research & Design) Physics AP Physics Anatomy & Physiology DC Anatomy & Physiology Aquatic Science Astronomy DC Biotechnology Earth Systems Science AP Environmental Science Forensic Science	4th Year Math Advanced Quantitative Reasoning DC College Algebra AP Statistics DC Statistics Precalculus DC Precalculus DC Business Calculus DC Calculus AP Calculus
---	--

Notes

IBCs available: Autodesk Associate; FANUC Robot Operator

Appendix - CTE Programs of Study & 4 Year Plans

Revised–June 2024



Health Science Career Cluster

The Health Science career cluster focuses on planning, managing, and providing therapeutic services, diagnostics services, health informatics, support services, and biotechnology research and development. This career cluster includes occupations ranging from medical assistant, registered nurse, and physical therapist to forensic science technician and athletic trainer.

Statewide Program of Study: **Diagnostic and Therapeutic Services**

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



Secondary Courses for High School Credit

Level 1	<ul style="list-style-type: none">Principles of Health Science (recommended for 10th grade)
Level 2	<ul style="list-style-type: none">Medical Terminology
Level 3	<ul style="list-style-type: none">Anatomy and PhysiologyHealth Science TheoryHealth Science Theory + Health Science Clinical
Level 4	<ul style="list-style-type: none">Pharmacology Practicum in Health Science



Example Postsecondary Opportunities

Apprenticeships

- Medical Assistant

Associate Degrees

- Emergency Medical Technology
- Radiologic Technology/Science

Bachelor's Degrees

- Emergency Medical Technology
- Medical Insurance Coding

Master's, Doctoral, and Professional Degrees

- Medicine
- Occupational Therapy

Additional Stackable IBCs/License

- Registered Diagnostic Medical Sonographer



Aligned Advanced Academic Courses

AP or IB	AP Biology	AP Chemistry
----------	------------	--------------

Dual Credit

DC Anatomy and Physiology

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

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities

- Intern with a medical assistant at a community clinic, hospital, assisted living, or long-term care facility
- Participate in job shadowing experiences such as Emergency Medical Services (EMS) ride along or hospital/clinical job

Expanded Learning Opportunities

- Participate in Health Occupation Students of America (HOSA) or SkillsUSA
- Participate in Advanced Medical Ambulance Bus (AMBUS) event or Community Emergency Response Team (CERT) event

Aligned Industry-Based Certifications

- Certified Clinical Medical Assistant
- Certified Nurse Aide (CNA)
- Emergency Medical Technician–Basic
- Patient Care Technician
- Pharmacy Technician
- Phlebotomy Technician



Example Aligned Occupations

Medical Assistants

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

Dental Hygienists

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

Physician Assistants

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

Diagnostic and Therapeutic Services



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

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



For more information visit:

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

Appendix - CTE Programs of Study & 4 Year Plans

Diagnostic and Therapeutic Services 4 Year Plan

9th Grade English I Algebra I Biology World Geography Foreign Language Fine Art or P.E. Elective	10th Grade English II Geometry Chemistry/IPC World History Foreign Language Fine Art or P.E. Principles of Health Science Elective
11th Grade English III Algebra II Anatomy and Physiology U.S. History Health Science Clinic & Theory Medical Terminology Elective	12th Grade English IV 4th year Math 4th year Science Government/Economics Practicum in Health Science Elective Elective

3rd/4th Year Science AP Biology DC Biology (Scientific Research & Design) Physics AP Physics Anatomy & Physiology DC Anatomy & Physiology Aquatic Science Astronomy DC Biotechnology Earth Systems Science AP Environmental Science Forensic Science	4th Year Math Advanced Quantitative Reasoning DC College Algebra AP Statistics DC Statistics Precalculus DC Precalculus DC Business Calculus DC Calculus AP Calculus
---	--

Notes

IBCs available: Certified Nurse Aide; Certified Clinical Medical Assistant; Pharmacy Technician; Emergency Medical Technician

Appendix - CTE Programs of Study & 4 Year Plans

Revised—June 2024



Hospitality and Tourism Career Cluster

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

Statewide Program of Study: Culinary Arts

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



Secondary Courses for High School Credit

- | | |
|----------------|---------------------------------|
| Level 1 | • Introduction to Culinary Arts |
| Level 2 | • Culinary Arts |
| Level 3 | • Advanced Culinary Arts |
| Level 4 | • Practicum in Culinary Arts |



Example Postsecondary Opportunities

Associate Degrees

- Culinary Arts
- Baking and Pastry Arts

Bachelor's Degrees

- Hotel/Motel Administration/Management
- Culinary Science

Master's, Doctoral, and Professional Degrees

- Organizational Leadership
- Foodservice Systems Administration/Management

Additional Stackable IBCs/License

- Food Manager License



Aligned Advanced Academic Courses

AP or IB	AP Chemistry
Dual Credit	

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

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	<ul style="list-style-type: none">• Shadow a director of a non-profit that produces and delivers food for communities in need• Intern at a catering company and learn about food production for large-scale events• Work part-time in a restaurant as a line cook or chef
Expanded Learning Opportunities	<ul style="list-style-type: none">• Participate in FCCLA• Participate in SkillsUSA• Participate in American Culinary Association or the Texas Restaurant Association

Aligned Industry-Based Certifications

- ServSafe Manager



Example Aligned Occupations

Bakers

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

Chefs and Head Cooks

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

General and Operations Managers

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

Culinary Arts



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

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024.
For more information visit:
<https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources>



Appendix - CTE Programs of Study & 4 Year Plans

Culinary Arts 4 Year Plan

9th Grade English I Algebra I Biology World Geography Foreign Language Fine Art or P.E. Introduction to Culinary Arts	10th Grade English II Geometry Chemistry/IPC World History Foreign Language Fine Art or P.E. Culinary Arts
11th Grade English III Algebra II 3rd year Science U.S. History Advanced Culinary Arts Elective Elective	12th Grade English IV 4th year Math 4th year Science Government/Economics Practicum in Culinary Arts Elective Elective
3rd/4th Year Science AP Biology DC Biology (Scientific Research & Design) Physics AP Physics Anatomy & Physiology DC Anatomy & Physiology Aquatic Science Astronomy DC Biotechnology Earth Systems Science AP Environmental Science Forensic Science	4th Year Math Advanced Quantitative Reasoning DC College Algebra AP Statistics DC Statistics Precalculus DC Precalculus DC Business Calculus DC Calculus AP Calculus

Notes

IBCs available: ServSafe Manager

Appendix - CTE Programs of Study & 4 Year Plans

Revised-June 2024



Human Services Career Cluster

The Human Services career cluster focuses on preparing individuals for employment in career pathways that relate to families and human needs, such as counseling and mental health services, family and community services, personal care services, and consumer services. This career cluster includes occupations ranging from community health workers to cosmetologists and nutritionists.

Regional Program of Study: Cosmetology and Personal Care Services

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

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

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

Secondary Courses for High School Credit

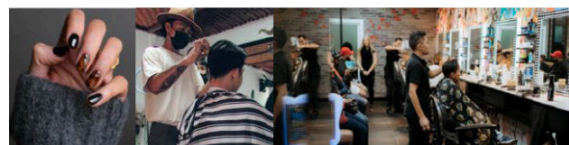


Level 1 • Principles of Cosmetology Design and Color Theory

Level 2 • Introduction to Cosmetology

Level 3 • Cosmetology I
• Cosmetology I + Cosmetology I Lab

Level 4 • Cosmetology II + Cosmetology II Lab



Example Postsecondary Opportunities

Apprenticeships

- Apprentice Stylist

Associate Degrees

- Cosmetology Operator
- Esthetics and Skin Care

Additional Stackable IBCs/License

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



Aligned Advanced Academic Courses

Dual Credit DC Cosmetology through Lamar State College-Orange

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

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities

- Work part-time in a salon, spa, or barbershop
- Participate in an apprenticeship at a salon to become an apprentice stylist

Expanded Learning Opportunities

- Tour a salon, spa, or barbershop
- Participate in SkillsUSA

Aligned Industry-Based Certifications

- Cosmetology Operator License



Example Aligned Occupations

Hairdressers, Hairstylists, and Cosmetologists

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

Skincare Specialists

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

First-Line Supervisors of Personal Service Workers

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

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



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



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

Appendix - CTE Programs of Study & 4 Year Plans

Cosmetology and Personal Care Services 4 Year Plan

9th Grade English I Algebra I Biology World Geography Foreign Language Fine Art or P.E. Elective	10th Grade English II Geometry Chemistry/IPC World History Foreign Language Fine Art or P.E. Introduction to Cosmetology Elective
11th Grade English III Algebra II 3rd year Science U.S. History Cosmetology I Elective Elective	12th Grade English IV 4th year Math 4th year Science Government/Economics Cosmetology II Elective

3rd/4th Year Science AP Biology DC Biology (Scientific Research & Design) Physics AP Physics Anatomy & Physiology DC Anatomy & Physiology Aquatic Science Astronomy DC Biotechnology Earth Systems Science AP Environmental Science Forensic Science	4th Year Math Advanced Quantitative Reasoning DC College Algebra AP Statistics DC Statistics Precalculus DC Precalculus DC Business Calculus DC Calculus AP Calculus
---	--

Notes

IBCs available: ServSafe Manager

Appendix - CTE Programs of Study & 4 Year Plans

Revised—June 2024



Information Technology Career Cluster

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

Statewide Program of Study: Cybersecurity

The Cybersecurity program of study focuses on occupational and educational opportunities associated with planning, implementing, upgrading, or monitoring security measures for the protection of computer networks and information. This program of study includes responding to computer security breaches and viruses and administering network security measures.



Secondary Courses for High School Credit

- Level 1**
- Fundamentals of Computer Science (Middle School only)
 - Foundations of Cybersecurity

- Level 2**
- Computer Science I
 - AP Computer Science Principles
 - Computer Maintenance

- Level 3**
- Networking

- Level 4**
- Cybersecurity Capstone
 - Practicum in Information Technology



Examples Postsecondary Opportunities

Associate Degrees

- Computer and Information Systems Security
- Computer Programming

Bachelor's Degrees

- Computer Science
- Computer Software Engineering

Master's, Doctoral, and Professional Degrees

- Computer and Information Systems Security/Auditing/Information Assurance
- Computer Software Engineering

Additional Stackable IBCs/License

- Certified Ethical Hacker (CEH)



Aligned Advanced Academic Courses

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

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

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	<ul style="list-style-type: none">Intern at a local bank, hospital, or government office to develop skills in implementing security measuresInterview with an information security analyst to learn how they plan for, monitor, and upgrade security measures at their organization
Expanded Learning Opportunities	<ul style="list-style-type: none">Participate in a HackathonParticipate in TSA or SkillsUSA

Aligned Industry-Based Certifications

- CompTIA A+ Certification
- CompTIA IT Fundamentals+
- CompTIA Network+
- CompTIA Security+



Example Aligned Occupations

Computer User Support Specialists

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

Software Developers

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

Information Security Analysts

Median Wage: \$110,268
Annual Openings: 1,719
10-Year Growth: 49%

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



For more information visit:

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



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

Appendix - CTE Programs of Study & 4 Year Plans

Cybersecurity 4 Year Plan

9th Grade English I Algebra I Biology World Geography Foreign Language Fine Art or P.E. Foundations of Cybersecurity	10th Grade English II Geometry Chemistry/IPC World History Foreign Language Fine Art or P.E. Computer Science I Computer Maintenance
11th Grade English III Algebra II 3rd year Science U.S. History Networking Cybersecurity Capstone Elective	12th Grade English IV 4th year Math 4th year Science Government/Economics Practicum in Information Technology Elective Elective

3rd/4th Year Science AP Biology DC Biology (Scientific Research & Design) Physics AP Physics Anatomy & Physiology DC Anatomy & Physiology Aquatic Science Astronomy DC Biotechnology Earth Systems Science AP Environmental Science Forensic Science	4th Year Math Advanced Quantitative Reasoning DC College Algebra AP Statistics DC Statistics Precalculus DC Precalculus DC Business Calculus DC Calculus AP Calculus
---	--

Notes

IBCs available: CompTIA IT Fundamentals+; ComTIA A+; CompTIA Network+; CompTIA Security+

Appendix - CTE Programs of Study & 4 Year Plans

Revised—June 2024



Information Technology Career Cluster

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

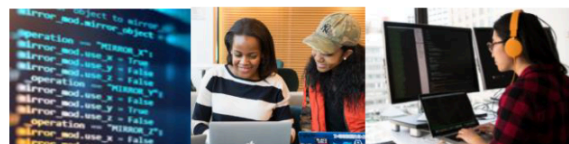
Statewide Program of Study: Programming and Software Development

The Programming and Software Development program of study focuses on occupational and educational opportunities associated with researching, designing, developing, testing, and operating systems-level software, compilers, and network distribution software for medical, industrial, military, communications, aerospace, business, scientific, and general computer applications. This program of study includes creating, modifying, and testing the codes, forms, and script that allow computer applications to run.



Secondary Courses for High School Credit

- | | |
|---------|---|
| Level 1 | <ul style="list-style-type: none">Fundamentals of Computer Science |
| Level 2 | <ul style="list-style-type: none">Computer Science IAP Computer Science Principles |
| Level 3 | <ul style="list-style-type: none">Computer Science II |
| Level 4 | <ul style="list-style-type: none">Computer Science IIIPracticum in Information TechnologyScientific Research and Design |



Example Postsecondary Opportunities

Apprenticeships

- Computer Programmer Apprenticeship



Associate Degrees

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

Bachelor's Degrees

- Data Science
- Computer Engineering

Master's, Doctoral, and Professional Degrees

- Management Science
- Computer Software Engineering

Additional Stackable IBCs/License

- AWS Certified Developer Associate

Aligned Advanced Academic Courses

AP or IB	AP Calculus AB
Dual Credit	Dual credit offerings will vary by local education agency.

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

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	<ul style="list-style-type: none">Intern at a local IT company to develop skills in programming and codingShadow a software developer to learn how they create and improve software to support efficient processes at their company
Expanded Learning Opportunities	<ul style="list-style-type: none">Program and create a gameParticipate in SkillsUSA or TSA

Aligned Industry-Based Certifications

- Certified Entry-Level Python Programmer (PCEP)



Example Aligned Occupations

Computer User Support Specialists

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

Software Developers

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

Computer Programmers

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

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



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



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

Appendix - CTE Programs of Study & 4 Year Plans

Programming and Software Development 4 Year Plan

9th Grade English I Algebra I Biology World Geography Foreign Language Fine Art or P.E. Computer Science I	10th Grade English II Geometry Chemistry/IPC World History Foreign Language Fine Art or P.E. Computer Science II Elective
11th Grade English III Algebra II 3rd year Science U.S. History Computer Science III Elective Elective Elective	12th Grade English IV 4th year Math 4th year Science Government/Economics Practicum in Information Technology Elective Elective

3rd/4th Year Science AP Biology DC Biology (Scientific Research & Design) Physics AP Physics Anatomy & Physiology DC Anatomy & Physiology Aquatic Science Astronomy DC Biotechnology Earth Systems Science AP Environmental Science Forensic Science	4th Year Math Advanced Quantitative Reasoning DC College Algebra AP Statistics DC Statistics Precalculus DC Precalculus DC Business Calculus DC Calculus AP Calculus
---	--

Notes

IBCs available: Certified Entry-Level Python Programmer (PCEP)

Appendix - CTE Programs of Study & 4 Year Plans

Revised—June 2024



Law and Public Service Career Cluster

The Law and Public Service career cluster focuses on planning, managing, and providing legal services, public safety, protective services, and homeland security, including professional and technical support services. This career cluster includes occupations ranging from police officer and firefighter to political scientist and lawyer.

Statewide Program of Study: Law Enforcement

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



Secondary Courses for High School Credit

- | | |
|----------------|---|
| Level 1 | <ul style="list-style-type: none">Principles of Law, Public Safety, Corrections, and Security |
| Level 2 | <ul style="list-style-type: none">Law Enforcement ICriminal InvestigationCourt Systems and Practices (not in this Program of Study) |
| Level 3 | <ul style="list-style-type: none">Law Enforcement II |
| Level 4 | <ul style="list-style-type: none">Forensic SciencePracticum in Law, Public Safety, Corrections, and Security |



Example Postsecondary Opportunities

Apprenticeships

- Security Specialist

Associate Degrees

- Criminal Justice
- Law Enforcement

Bachelor's Degrees

- Forensic Science
- Criminal Justice

Master's, Doctoral, and Professional Degrees

- Criminal Justice
- Criminology and Criminal Justice

Additional Stackable IBCs/Licensures

- Jailer – Basic County Corrections
- Basic Telecommunicator



Aligned Advanced Academic Courses

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

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

Work-Based Learning and Expanded Learning Opportunities

- | | |
|--|--|
| Work-Based Learning Activities | <ul style="list-style-type: none">Shadow a detective to learn about investigations and the role of detectives in law enforcementIntern in dispatch at a local law enforcement agency to learn about first responder roles and processes |
| Expanded Learning Opportunities | <ul style="list-style-type: none">Visit a police departmentParticipate in TSA or SkillsUSA |

Aligned Industry-Based Certifications

- Non-Commissioned Security Officer Level II License



Example Aligned Occupations

Police and Sheriff's Patrol Officers

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

Detectives and Criminal Investigators

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

First-Line Supervisors of Police and Detectives

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

Law Enforcement



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

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



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

Appendix - CTE Programs of Study & 4 Year Plans

Law Enforcement 4 Year Plan

9th Grade English I Algebra I Biology World Geography Foreign Language Fine Art or P.E. Principles of Law, Public Safety and Corrections	10th Grade English II Geometry Chemistry/IPC World History Foreign Language Fine Art or P.E. Law Enforcement I Elective
11th Grade English III Algebra II 3rd year Science U.S. History Law Enforcement II Criminal Investigations Court Systems and Practices Elective	12th Grade English IV 4th year Math 4th year Science (Forensic Science) Government/Economics Practicum in Law, Public Safety and Corrections Elective Elective

3rd/4th Year Science AP Biology DC Biology (Scientific Research & Design) Physics AP Physics Anatomy & Physiology DC Anatomy & Physiology Aquatic Science Astronomy DC Biotechnology Earth Systems Science AP Environmental Science Forensic Science	4th Year Math Advanced Quantitative Reasoning DC College Algebra AP Statistics DC Statistics Precalculus DC Precalculus DC Business Calculus DC Calculus AP Calculus
---	--

Notes

IBCs available: Non-Commissioned Security Officer Level II

Appendix - CTE Programs of Study & 4 Year Plans

Revised—June 2024



Manufacturing Career Cluster

The Manufacturing career cluster focuses on planning, managing, and performing the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance, and process engineering. This career cluster includes occupations ranging from welder and machinist to industrial engineering technician and semi-conductor processing technician.

Statewide Program of Study: *Welding*

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



Secondary Courses for High School Credit

Level 1 • Introduction to Welding

Level 2 • Welding I

Level 3 • Welding II

Level 4 • Practicum in Manufacturing

Aligned Advanced Academic Courses

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

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

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities

- Job shadow a welder
- Intern for a local welding company

Expanded Learning Opportunities

- Tour a welding shop
- Participate in SkillsUSA or TSA
- Participate in a welding project that benefits the community

Aligned Industry-Based Certifications

- AWS D1.1 Structural Steel
- AWS D9.1 Sheet Metal Welding
- AWS SENSE Level I: Entry Welder



Example Postsecondary Opportunities

Apprenticeships

- Welding

Associate Degrees

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

Bachelor's Degrees

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

Master's, Doctoral, and Professional Degrees

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



Example Aligned Occupations

Welders, Cutters, Solderers, and Brazers

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

First-Line Supervisors of Production and Operating Workers

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

Industrial Production Managers

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

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



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

Appendix - CTE Programs of Study & 4 Year Plans

Welding 4 Year Plan

9th Grade English I Algebra I Biology World Geography Foreign Language Fine Art or P.E. Introduction to Welding	10th Grade English II Geometry Chemistry/IPC World History Foreign Language Fine Art or P.E. Welding I
11th Grade English III Algebra II 3rd year Science U.S. History Welding II Elective Elective	12th Grade English IV 4th year Math 4th year Science Government/Economics Practicum in Manufacturing Elective Elective

3rd/4th Year Science AP Biology DC Biology (Scientific Research & Design) Physics AP Physics Anatomy & Physiology DC Anatomy & Physiology Aquatic Science Astronomy DC Biotechnology Earth Systems Science AP Environmental Science Forensic Science	4th Year Math Advanced Quantitative Reasoning DC College Algebra AP Statistics DC Statistics Precalculus DC Precalculus DC Business Calculus DC Calculus AP Calculus
---	--

Notes

IBCs available: AWS SENSE; AWS D1.1 Structural Steel; AD9.1 Sheet Metal Welding

Appendix - CTE Programs of Study & 4 Year Plans

Revised–June 2024



Transportation, Distribution, and Logistics Career Cluster

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

Statewide Program of Study: Automotive and Collision Repair

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



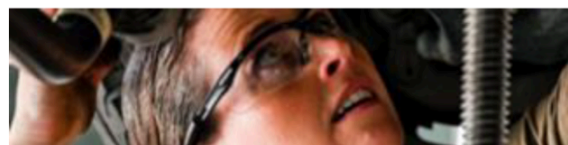
Secondary Courses for High School Credit

Level 1

Level 2 • Automotive Basics

Level 3 • Automotive Technology I: Maintenance and Light Repair

Level 4 • Automotive Technology II: Automotive Service • Practicum in Transportation Systems



Example Postsecondary Opportunities

Apprenticeships

- Automotive Technician Apprenticeship



Associate Degrees

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

Bachelor's Degrees

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

Additional Stackable IBCs/License

- Automobile and Light Truck Certification (A1 – A9)

Aligned Advanced Academic Courses

Dual Credit

DC Automotive through Lone Star College – Conroe Center
– taught at Willis High School

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

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities

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

Expanded Learning Opportunities

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

Aligned Industry-Based Certifications

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



Example Aligned Occupations

Automotive Service Technicians and Mechanics

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

Bus and Truck Mechanics and Diesel Engine Specialists

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

First-Line Supervisors of Mechanics, Installers, and Repairers

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

Automotive and Collision Repair



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

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



For more information visit:

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

Appendix - CTE Programs of Study & 4 Year Plans

Automotive and Collision Repair 4 Year Plan

9th Grade English I Algebra I Biology World Geography Foreign Language Fine Art or P.E. Automotive Basics	10th Grade English II Geometry Chemistry/IPC World History Foreign Language Fine Art or P.E. Automotive Technology I
11th Grade English III Algebra II 3rd year Science U.S. History Automotive Technology II Elective Elective	12th Grade English IV 4th year Math 4th year Science Government/Economics Practicum in Transportation Systems Elective Elective

3rd/4th Year Science AP Biology DC Biology (Scientific Research & Design) Physics AP Physics Anatomy & Physiology DC Anatomy & Physiology Aquatic Science Astronomy DC Biotechnology Earth Systems Science AP Environmental Science Forensic Science	4th Year Math Advanced Quantitative Reasoning DC College Algebra AP Statistics DC Statistics Precalculus DC Precalculus DC Business Calculus DC Calculus AP Calculus
---	--

Notes

IBCs available: ASE Entry-Level (multiple)