

Willis High School Course Catalog

2026-2027

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TABLE OF CONTENTS

Table of Contents **3**
High School Graduation Requirements **5**
Foundation High School Program with Endorsements 5
Distinguished Level of Achievement 5
Endorsements **8**
Science, Technology, Engineering & Math (STEM) 8
Business and Industry 8
Public Service 9
Arts and Humanities 9
Multidisciplinary Studies 9
Grade-Level Classification 10
Grade Point Average (GPA) 10
Honor Graduates 11
Personal Graduation Plans 15
Credit by Exam 16
Air Force JROTC **18**
Career & Technical Education (CTE) **19**
Agriculture, Food, and Natural Resources 19
Architecture & Construction 23
Arts, A/V Technology & Communications 26
Business, Marketing & Finance 32
Education & Training 35
Engineering Foundations 38
Diagnostic and Therapeutic Services 40
Culinary Arts 43
Cosmetology 45
Information Technology 47
Law Enforcement 51
Welding 53
Automotive 55
English Language Arts **56**
Fine Arts **61**
Art 61
Dance 65
Music 66
Theatre 70
Health **71**
Languages Other Than English **71**
Local Credits **76**
Mathematics **77**
Other Electives **81**
Physical Education **81**
Physical Education 81
Cheerleading 83

Athletics (Physical Education Substitution)..... 66
Science..... 67
Social Studies..... 71
Appendix - CTE Programs of Study..... 96
Animal Science..... 96
Plant Science..... 98
Architectural Drafting and Design 4-Year Plan 100
Carpentry..... 102
Plumbing and Pipefitting..... 104
Digital Communications..... 106
Graphic Design and Interactive Media..... 108
Accounting and Financial Service..... 110
Business Management..... 112
Marketing and Sales..... 114
Early Learning..... 116
Teaching and Training..... 118
Engineering Foundations..... 120
Diagnostic and Therapeutic Services..... 122
Culinary Arts..... 124
Cosmetology and Personal Care Services..... 126
Cybersecurity..... 128
Programming and Software Development..... 130
Law Enforcement..... 132
Welding..... 134
Automotive and Collision Repair..... 136
Appendix 2 - Fine Arts Programs Of Study..... **137**
Choir..... 137
Instrumental Performance Program Of Study (Band, Orchestra, Guitar)..... 138
Technical Theatre Program Of Study..... 139
Theater Program Of Study..... 140
Visual Art Program of Study..... 141
Appendix 3 - Journalism Programs Of Study..... 142
Advanced Journalism: Yearbook Program Of Study 142
Advanced Journalism: Newspaper Program Of Study..... 143
Appendix 4 - Military Programs Of Study..... 144
Military Program Of Study - Law Enforcement Emphasis..... 144
Military Program Of Study - Engineering Foundations Emphasis..... 145

*****All courses listed count towards WGPA 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, and one (1) additional math course
  - **Science:** Biology, Chemistry/IPC, and two (2) 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 two (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 following pages for a complete list of the available programs of study)
- **FIVE** credits in Electives: additional coursework to complete an endorsement

TOTAL CREDITS: 26

DISTINGUISHED LEVEL OF ACHIEVEMENT

Students completing the distinguished level of achievement are eligible for college admissions under the top 10% automatic admissions provision. This designation will be added to the graduation transcript.

To earn the distinguished level of achievement, students must complete the following:

- The Foundation High School Program;
- An Endorsement; and
- Algebra II

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)

TEXAS FIRST: EARLY GRADUATION

The Texas First Early High School Completion Program allows public high school students who demonstrate early readiness for college to graduate early from high school. Parents and students should contact their school counselor for further details.

TESTING REQUIREMENTS FOR GRADUATION

Students are required, with limited exceptions and regardless of graduation program, to perform satisfactorily on the following EOC assessments:

- English I
- English II
- Algebra I
- Biology
- U.S. History

A student who does not achieve a sufficient score will have opportunities to retake an assessment.

State law allows a student to meet EOC requirements by substituting satisfactory performance on approved national standardized assessments or on the state-developed assessment used for entrance into Texas public universities. [See the school counselor for more information on the state testing requirements for graduation.]

If a student fails to perform satisfactorily on an EOC assessment, the district will provide remediation in the applicable content area. This may require the student's participation outside normal school operating times.

In limited circumstances, a student who fails to demonstrate proficiency on up to two of the required assessments may still be eligible to graduate if an individual graduation committee, formed in accordance with state law, unanimously determines that the student is eligible to graduate.

CERTIFICATES OF COURSEWORK COMPLETION

A certificate of coursework completion will not be issued to a student who has successfully completed state and local credit requirements for graduation but has not yet demonstrated satisfactory performance on the state-mandated tests required for graduation.

FINANCIAL AID APPLICATION REQUIREMENT

Before graduating from high school, each student must complete and submit an application for financial aid for post-secondary education. Students must complete and submit either a free application for federal student aid (FAFSA) or a Texas application for state financial aid (TASFA).

The Willis High School College and Career Center sends out communication throughout the entire year with links to FAFSA/TAFSA virtual information sessions sponsored by colleges but available for any student/family. The College and Career Center at Willis High School is available each day during lunch or by appointment for students to get help completing their FAFSA/TAFSA application, understanding the financial aid report from the college. Willis High School seniors are also taken through the College/Career website in their English classes and show them how to access the FAFSA resources on the website

A student is not required to complete and submit a FAFSA or TASFA if:

- The student's parent submits a form provided by the district indicating that the parent authorizes the student to opt out
- A student who is 18 years of age or older or a legally independent minor submits a form provided by the district indicating that the student opts out
- A school counselor authorizes the student to opt out for good cause

Please contact the school counselor for more information.

To confirm that a student has completed and submitted a FAFSA or TASFA, the student must submit one of the following:

- A screenshot that includes the processed date field of the FAFSA ApplyTexas Counselor Suite
- Notification, such as a copy of an email, from the United States Department of Education verifying completion of the FAFSA
- A copy or screenshot of the FAFSA acknowledgment page
- A screenshot of the TASFA submission acknowledgment page (from those institutions that offer an electronic form)
- An acknowledgment receipt from an institution of higher education (IHE)
- A copy of a financial aid award letter from an IHE

Scholarships and Grants

Students who have a financial need according to federal criteria and who complete the foundation graduation program may be eligible under the TEXAS Grant Program, Teach for Texas Grant Program, and Future Texas Teachers Scholarship Program for scholarships and grants toward tuition and fees to Texas public universities, community colleges, and technical schools, as well as to private institutions. Certain students who graduate early may also be eligible for the Texas First Scholarship Program.

Students with Disabilities

Admission, review, and dismissal (ARD) committees will make instructional and assessment decisions for students with disabilities who receive special education services in accordance with state law.

Upon the recommendation of the ARD committee, a student with a disability who receives special education services may be permitted to graduate under the provisions of their individualized education program (IEP) and in accordance with state rules.

A student who receives special education services may earn the distinguished level of achievement or an endorsement under the foundation program. If the student's curriculum requirements for the endorsement were modified, the student's ARD committee will determine whether the modified curriculum is sufficiently rigorous to earn the distinguished level of achievement or endorsement. The ARD committee must also determine whether the student must perform satisfactorily on any end-of-course assessment to earn an endorsement.

A student who receives special education services and has completed four years of high school but has not met the requirements of their IEP may participate in graduation ceremonies and receive a certificate of attendance. The student may then remain enrolled to complete the IEP and earn a high school diploma but will only be allowed to participate in one graduation ceremony.

ENDORSEMENTS

SCIENCE, TECHNOLOGY, ENGINEERING & MATH (STEM)

All students who wish to earn a STEM endorsement must complete **Algebra II**, **chemistry**, and **physics**

AND

one of the following options:

- Become a CTE completer in a TEA-designated program of study related to STEM:
  - 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**
- Two (2) additional mathematics courses for which Algebra II is a prerequisite **OR**
- Earn two (2) additional science courses **OR**
- One (1) additional mathematics course listed for which Algebra II is a prerequisite and one (1) additional science course.

BUSINESS AND INDUSTRY

Become a CTE completer in certain TEA-designated programs of study if the math and science requirements for the STEM endorsement are not met

OR

Four English credits to include three levels of one of the following:

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

OR

Become a CTE completer in a TEA-designated program of study related to business and industry:

- 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

Become a CTE completer in a TEA-designated program of study related to public service:

- 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

- Five (5) social studies courses; **OR**
- Four (4) levels of the same Language other than English (LOTE); **OR**
- Two (2) levels of the same Language other than English (LOTE) and two (2) more levels of a different LOTE; **OR**
- Coherent sequence of four (4) credits in one (1) or two (2) categories or disciplines of fine arts (art, dance, theater arts, band, choir, orchestra); **OR**
- Four (4) core English courses

MULTIDISCIPLINARY STUDIES

- Four (4) advanced courses that prepare a student to enter the workforce successfully, or postsecondary education without remediation (no coherent sequence required); **OR**
- Four (4) credits in each of the four Foundation subject areas to include chemistry and/or physics and English IV ; **OR**

- Four (4) 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 76.

GRADE-LEVEL CLASSIFICATION

After grade 9, students are classified according to the number of credits earned toward graduation.

Credits Earned	Classification
6	Grade 10 (Sophomore)
13	Grade 11 (Junior)
20	Grade 12 (Senior)

Class Schedules

All students are expected to attend school for the entire school day and maintain a full class schedule. Exceptions may be made occasionally by the campus principal for students in grades 9-12 who meet specific criteria and receive parental consent to enroll in less than a full-day schedule.

Repeating a High-School Credit Course
A parent may request in writing that a student repeat a high-school credit course in which the student was enrolled during the previous school year unless the district determines that the student has met all requirements for graduation.
Before granting the request, the district may convene a retention committee to meet and discuss the request and will invite the parent to participate.

GRADE POINT AVERAGE (GPA)

4.0 Grade Point Average (GPA)

A 4.0 grade point average (GPA) shall be calculated using semester grades in all high school credit courses regardless of when the credit is earned. All grades entered on a student's transcript, including failing grades and repeated courses, shall be included in determining the student's GPA.

The grade point system used for calculating the GPA shall be as follows:

NUMBER GRADE	GPA POINTS
100–90	4.0
89–80	3.0
79-70	2.0
< 70	0.0

6.0 Weighted Grade Point Average (WGPA)

For purposes of local honor designations, the District shall calculate a weighted GPA and shall include in the calculation of class rank semester grades earned in high school credit courses taken in grades 9–12 and identified in the course catalog on the District's website. Students in the 9th grade during the 2022-2023 school year are subject to new GPA criteria. Please refer to EIC (Local) for additional information. Below is a summary of the weighted GPA (WGPA) updates. Additionally, please contact your school counselor with any questions regarding courses that count toward a student's GPA.

Students who are classified as 9th grade beginning in the fall of 2022:

- All classes count toward their weighted GPA. Weighted GPA is used to determine class rank. These classes are indicated in the 2022-2023 course catalog as weighted with the letter "Y" under the "Included in WGPA" column.
- All classes count toward the 4.0 GPA. This is usually what a college or university requests for admission. The scale has been updated to eliminate "D" as a grade. The "C" range is from 79-70 and it counts 2 grade points.
- Students may choose 2 approved classes to exempt from their weighted GPA beginning their 11th grade year. See your student's counselor for more information.

The District shall categorize and weight eligible courses as Tier 1, Tier 2, and Tier 3 in accordance with provisions below:

- Eligible Advanced Placement (AP), Honors, gifted/talented (G/T), and dual credit courses designated in the course catalog on the District's website shall be categorized and weighted as Tier 1 courses.
- Eligible general-level courses shall be designated in the course catalog on the District's website as Tier 2 courses.
- Eligible courses with modified content or on the modified grading scale shall be designated in the course catalog on the District's website as Tier 3 courses.

The District shall convert grades earned in eligible courses to grade points and shall calculate a weighted GPA in accordance with the following chart:

Number Grade	Tier 1 Classes	Tier 2 Classes	Tier 3 Classes
100	6.0	5.0	4.0
99	5.9	4.9	3.9
98	5.8	4.8	3.8
97	5.7	4.7	3.7
96	5.6	4.6	3.6
95	5.5	4.5	3.5
94	5.4	4.4	3.4
93	5.3	4.3	3.3
92	5.2	4.2	3.2
91	5.1	4.1	3.1
90	5.0	4.0	3.0
89	4.9	3.9	2.9
88	4.8	3.8	2.8
87	4.7	3.7	2.7
86	4.6	3.6	2.6
85	4.5	3.5	2.5
84	4.4	3.4	2.4
83	4.3	3.3	2.3
82	4.2	3.2	2.2
81	4.1	3.1	2.1
80	4.0	3.0	2.0
79	3.9	2.9	1.9
78	3.8	2.8	1.8

77	3.7	2.7	1.7
76	3.6	2.6	1.6
75	3.5	2.5	1.5
74	3.4	2.4	1.4
73	3.3	2.3	1.3
72	3.2	2.2	1.2
71	3.1	2.1	1.1
70	3.0	2.0	1.0
<70	0	0	0

The weighted GPA and the GPA shall be reported on the student's transcript and shall be made available in accordance with the application deadline for the college or university when requested by the student. [See EIC (LEGAL)]

Transfer Grades

Students transferring into the District shall receive credit for all courses passed based upon the sending school's transcript. For a course to receive grade points other than those for general-level classes, the transferred course must be clearly designated as an above-level advanced course or a below-level remedial course on the student's transcript.
Students transferring credits into the District shall receive the numerical grade that was earned in courses at another school.
Letter grades shall be recorded as follows:

- A = 95
- B = 85
- C = 75
- F = 69
- P = 75

HONOR GRADUATES

Class rank shall be determined by descending order of students' weighted grade point averages. For the purpose of determining honors to be conferred during graduation activities, the District shall calculate class rank using grades available at the time of calculation in the spring semester.

Valedictorian and Salutatorian Selection

The valedictorian and salutatorian shall be the eligible students with the highest and second highest rank, respectively. To be eligible for such recognition, a student must:

- Have been continuously enrolled in the District high school for the two school years immediately preceding graduation;
- Have completed the Recommended Program, the Advanced/Distinguished Achievement Program, or the foundation program with the distinguished level of achievement;
- Have completed at least one Tier 1 academic course during each of the last two years; and
- Be graduating after exactly eight semesters of enrollment in high school.
- In case of a tie in weighted GPAs, the District shall apply the following methods, in this order, to determine recognition as valedictorian or salutatorian:
- Compare the most Tier 1 semester credits.
- Compare the highest weighted GPA based solely on Tier 1 semester credits.
- If the tie is not broken after applying these methods for valedictorian, co-valedictorians shall be declared, and no salutatorian shall be recognized. If a tie exists for salutatorian, all students who tie shall be recognized.

Honor Graduate Qualifications

The District shall recognize as an honor graduate each student who has earned a cumulative weighted GPA of at least 4.0.
The District shall recognize at the graduation ceremony all students whose weighted GPAs comprise the top 15 percent of the students in the graduating class as follows:

- Summa Cum Laude: Top five percent
- Magna Cum Laude: 6–10 percent
- Cum Laude: 11–15 percent

Early Graduate Ranking

Students who wish to graduate in three years should declare their intention to do so with their designated school counselor by the end of their sophomore year. Early graduates must complete graduation requirements for the Foundation High School Plan with Endorsements. To be eligible to graduate in three years, the student shall complete all coursework and exit-level testing required of the ninth grade class in which he or she begins high school.

A student who completes the high school program requirements in fewer than four years shall be ranked in the class with which he or she actually graduates.

A student's class ranking shall be determined within the graduating class of the school year in which the student completes all requirements for a diploma, regardless of the number of years the student is enrolled in high school. For ranking purposes, a school year begins on the first day of school and ends on the last day of summer school.

Early graduates shall meet the same eligibility standards for honors positions as all other students.

College and University Admissions and Financial Aid

For two school years following graduation, a district student who graduates as valedictorian or in the top 10 percent of their class is eligible for automatic admission into four-year public universities and colleges in Texas if the student meets one of the following requirements:

- Completes the distinguished level of achievement under the foundation graduation program (a student must graduate with at least one endorsement and must have taken Algebra II as one of the four required math courses) [see Foundation Graduation Program]; or
- Satisfies the ACT College Readiness Benchmarks or earns at least a 1500 out of 2400 on the SAT

The student is ultimately responsible for meeting the admission requirements of the university or college, including timely submission of a completed application.

If a college or university adopts an admissions policy that automatically accepts the top 25 percent of a graduating class, the provisions above will also apply to a student ranked in the top 25 percent of their class.

The University of Texas at Austin may limit the number of automatically admitted students to 75 percent of the University's enrollment capacity for incoming resident freshmen. From the summer/fall 2026 term through the spring 2027 term, the University will admit the top five percent of a high school's graduating class who meet the above requirements. Additional applicants will be considered by the University through a holistic review process.

As required by law, the district will provide written notice about the following:

- Automatic college admission
- Curriculum requirements for financial aid
- Benefits of completing the requirements for automatic admission and financial aid

Parents and students will be asked to sign an acknowledgment that they received this information.
Students and parents should contact the school counselor for further information about automatic admissions, the application process, and deadlines.

PERSONAL GRADUATION PLANS

A personal graduation plan will be developed for each high school student.

The district encourages all students to pursue a personal graduation plan that includes the completion of at least one endorsement and to graduate with the distinguished level of achievement. Attainment of the distinguished level of achievement is a requirement for a student to be considered for automatic admission to a public four-year college or university in Texas, depending on their rank in class.

The school will review personal graduation plan options with each student entering grade 9 and the student's parent. Before the end of grade 9, a student and their parent will be required to sign off on a personal graduation plan that promotes college and workforce readiness, promotes career placement and advancement, and facilitates the transition from secondary to postsecondary education.

The student's personal graduation plan will outline an appropriate course sequence based on the student's choice of endorsement.

Please review TEA's Graduation Toolkit
(https://tea.texas.gov/about-tea/news-and-multimedia/brochures/tea-brochures).
A student may, with parental permission, amend their personal graduation plan after the initial confirmation.

Available Course Options for All Graduation Programs

Each spring, the district will update students on the courses required or offered in each curriculum area so students can enroll for the upcoming school year.

Note: The district may require the completion of certain courses for graduation even if these courses are not required by the state for graduation.
Not all courses are offered at every secondary campus in the district. A student who wants to take a course not offered at their regular campus should contact the school counselor about a transfer or other alternatives. If the parents of at least 22 students request a transfer for a course in the required curriculum other than fine arts or career and technical education (CTE), the district will offer the course the following year either by teleconference or at the school from which the transfers were requested.

CREDIT BY EXAMINATION — If a Student Has Taken the Course/Subject (Grades 6-12)

A student who has previously taken a course or subject but did not receive credit or a final grade for it may, in circumstances determined by the principal or attendance committee, be permitted to earn credit or a final grade by passing an examination approved by the district's board of trustees on the essential knowledge and skills defined for that course or subject.

Examples of prior instruction include incomplete coursework due to a failed course or excessive absences, homeschooling, or coursework by a student transferring from a nonaccredited school. The opportunity to earn credit by examination after the student has had prior instruction is sometimes referred to as "credit recovery."

The attendance review committee may also offer a student with excessive absences an opportunity to earn credit for a course by passing an examination.

If a student is granted approval to take an examination for credit, the student must score at least 70 on the examination to receive credit for the course or subject.

Credit by Examination for Advancement/Acceleration — If a Student Has Not Taken the Course/Subject

A student will be permitted to earn credit by examination for an academic course or subject area for which the student had no prior instruction for advancement or to accelerate to the next grade level.

The examinations offered by the district are approved by the district's board of trustees. Testing windows for these examinations will be published in district publications and on the district's website. A student may take a specific examination only once per testing window.

The only exceptions to the published testing windows will be for examinations administered by another entity or to accommodate a student experiencing homelessness or a student involved in the foster care system.

When another entity administers an examination, the student and the district must comply with the testing schedule of the other entity.

If a student plans to take an examination, the student or parent must register with the school counselor no later than 30 days before the scheduled testing date.

Students in Grades 6-12
A student in grade 6 or above is eligible to earn course credit if the student meets one of the following requirements:

- A passing score of at least 80 on an examination approved by the board
- A scaled score of 50 or higher on an examination administered through the College Level Examination Program (CLEP)
- A score of 3 or higher on an AP examination, as applicable

A student may take an examination to earn high school course credit no more than twice. If a student fails to achieve the designated score on the applicable exam before the beginning of the school year in which the student would need to enroll in the course according to the school's high school course sequence, the student must complete the course.

AIR FORCE JROTC

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).

CAREER & TECHNICAL EDUCATION (CTE)

AGRICULTURE, FOOD, AND NATURAL RESOURCES

Click the links below to see complete Programs of Study along with the 4-year plans.

- **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**
WISD DC #: 70090D0C
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. This course is eligible as part of the Dual Credit Animal Science Pathway for courses AGCR 1304 Intro to Sustainable Agriculture and AGMG 1300 Agriculture Policies, Safety, and Codes, through successful application and enrollment in Lamar State College Orange.

LEVEL 2 COURSES

Career Cluster: Agriculture, Food, and Natural Resources
Program of Study: Animal Science
EQUINE SCIENCE
WISD #: 7014000C **TIER 2**
WISD DC #: 70140D0C
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. This course is eligible as part of the Dual Credit Animal Science Pathway for courses AGAH 1301: Animal Science, through successful application and enrollment in Lamar State College Orange and completion of DC course prerequisites.

Career Cluster: Agriculture, Food, and Natural Resources
Program of Study: Animal Science
SMALL ANIMAL MANAGEMENT
WISD #: 7015000C **TIER 2**
WISD DC #: 70150D0C
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. This course is eligible as part of the Dual Credit Animal Science Pathway for courses AGAH 1343: Animal Health, through successful application and enrollment in Lamar State College Orange and completion of DC course prerequisites.

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**
WISD DC #: 70100D0C
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. This course is eligible as part of the Dual Credit Animal Science Pathway for courses AGAH 1353: Beef Cattle Production and/or AGAH 1341: Sheep and Goat Production, through successful application and enrollment in Lamar State College Orange and completion of DC course prerequisites.

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 (AFNR)
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. This course is a Dual Credit academic course for Fall: BIOL 1406 Biology I for Science Majors and Spring: BIOL 1407 Biology II for Science Majors, through successful application and enrollment in Lone Star College.

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.

ARCHITECTURE & CONSTRUCTION

Click the links below to see complete Programs of Study along with the 4-year plans.

- 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: $35 shop fee required

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: Algebra I and Geometry
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.

ARTS, A/V TECHNOLOGY & COMMUNICATIONS

Click the links below to see complete Programs of Study along with the 4-year plans.

- **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: None
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: Recommended Principles of Arts, Audio + Video Technology, and Communications
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: Recommended Principles of Arts, Audio + Video Technology, and Communications
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: Recommended Principles of Arts, Audio + Video Technology, and Communications or Audi/Video Production I and Audio/Video Production I Lab
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.

BUSINESS, MARKETING & FINANCE

Click the links below to see complete Programs of Study along with the 4-year plans.

- 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: None
NoneStudents 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: None
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: Recommended Principles of Business, Marketing, and Finance
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: Recommended Principles of Business, Marketing, and Finance
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; 2nd half due 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: 10-12 **.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 #: 7099000C **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.

EDUCATION & TRAINING

Click the links below to see complete Programs of Study along with the 4-year plans.

- 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: None

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 #: 7113000C **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 #: 7118000C **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.

ENGINEERING FOUNDATIONS

Click the links below to see the complete Program of Study along with the 4-year plan.

- 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: None
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: Principles of Applied Engineering
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. This course is a Dual Credit academic course for Fall: BIOL 1406 Biology I for Science Majors and Spring: BIOL 1407 Biology II for Science Majors, through successful application and enrollment in Lone Star College.

DIAGNOSTIC AND THERAPEUTIC SERVICES

Click the links below to see the complete Program of Study along with the 4-year plan.

- 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**
WISD DC #: 71090D0C
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. This course is eligible as part of the Dual Credit Medical Assisting Pathway for courses HITT 1305: Medical Terminology and FDNS 1345: Nutrition and Diet Therapy, through successful application and enrollment in Lamar State College Orange for students in grade 10, 11 and 12.

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. This course is a Dual Credit academic course for Fall: BIOL 2412 Human Anatomy & Physiology I and Spring: BIOL 2413 Human Anatomy & Physiology II, through successful application and enrollment in Lone Star College.

Career Cluster: Health Science
Program of Study: Diagnostic & Therapeutic Services
HEALTH SCIENCE THEORY
WISD #: 7100000C **TIER 2**
WISD DC #: 71000D0C
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. This course is eligible as part of the Dual Credit Medical Assisting Pathway for courses NURA 1301: Nurse Aide or PCT for Health Care, through successful application and enrollment in Lamar State College Orange and successful completion of DC course prerequisites.

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. This course is eligible as part of the Dual Credit Medical Assisting Pathway for courses NURA 1160: Clinical Nursing Assistant or PCT Clinical, through successful application and enrollment in Lamar State College Orange and successful completion of DC course prerequisites.

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
This 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. This course is eligible as part of the Dual Credit Medical Assisting Pathway for courses PLAB 1223: Phlebotomy, ECRD 1211: Electrocardiography, PLAB 1160: Clinical Phlebotomy, and MDCA 1348: Pharmacology &

Administration of Medications, through successful application and enrollment in Lamar State College Orange and successful completion of DC course prerequisites.
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.

CULINARY ARTS

Click the links below to see the complete Program of Study along with the 4-year plan.

- 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
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**
WISD DC #: 70510D0C
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. This course is eligible as part of the Dual Credit Culinary Arts Pathway for courses

HAMG: Intro to Hospitality Industry and CHEF 1305: Sanitation and Safety, through successful application and enrollment in Lamar State College Orange.

LEVEL 3 COURSES

Career Cluster: Hospitality & Tourism
Program of Study: Culinary Arts
ADVANCED CULINARY ARTS
WISD #: 7053000C **TIER 2**
WISD DC #: 70530D0C
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. This course is eligible as part of the Dual Credit Culinary Arts Pathway for courses CHEF 1301: Basic Food Preparation and IFWA: Nutrition and Meal Planning, through successful application and enrollment in Lamar State College Orange and required prerequisite courses.

LEVEL 4 COURSES

Career Cluster: Hospitality & Tourism
Program of Study: Culinary Arts
PRACTICUM IN CULINARY ARTS
WISD #: 7055000C **TIER 2**
WISD DC #: 70550D0C
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. This course is eligible as part of the Dual Credit Culinary Arts Pathway for courses CHEF 2301: Intermediate Food Preparation, PSTR 1301: Fundamentals of Baking, CHEF 1310: Garde Manger, and CHEF 2331: Advanced Food Preparation through successful application and enrollment in Lamar State College Orange and required prerequisite courses.

COSMETOLOGY

Click the links below to see the complete Program of Study along with the 4-year plan.

- 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: None

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: None

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. This course is eligible as part of the Dual Credit Cosmetology Pathway for courses CSME 1401: Orientation to Cosmetology, through successful application and enrollment in Lamar State College Orange.

LEVEL 3 COURSES

Career Cluster: Human Services
Program of Study: Cosmetology & Personal Care Services
COSMETOLOGY I
WISD #: 7161000C **TIER 2**
WISD DC #: 71610D0C
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. This course is eligible as part of the Dual Credit Cosmetology Pathway for courses CSME 1401: Orientation to Cosmetology, through successful application and enrollment in Lamar State College Orange.

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. This course is eligible as part of the Dual Credit Cosmetology Pathway for courses CSME 1405: Fundamentals of Cosmetology, CSME 1410: Introduction to Haircutting and Related Theory, and CSME 1442: Principles of Nail and Skin Care Technology , through successful application and enrollment in Lamar State College Orange and successful completion of DC course prerequisites.

LEVEL 4 COURSES

Career Cluster: Human Services
Program of Study: Cosmetology & Personal Care Services
COSMETOLOGY II
WISD #: 7162000C **TIER 2**
WISD DC #:
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. This course is eligible as part of the Dual Credit Cosmetology Pathway for courses CSME 2439: Advanced Hair Design, CSME 2401: Principles of Hair Coloring and Related Theory, CSME 2541: Preparation for the State Licensing Examination, and CSME 2436: Advanced Cosmetology Techniques, through successful application and enrollment in Lamar State College Orange and successful completion of DC course prerequisites.

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. This course is eligible as part of the Dual Credit Cosmetology Pathway for courses CSME 2439: Advanced Hair Design, CSME 2401: Principles of Hair Coloring and Related Theory, CSME 2541: Preparation for the State Licensing Examination, and CSME 2436: Advanced Cosmetology Techniques, through successful application and enrollment in Lamar State College Orange and successful completion of DC course prerequisites.

INFORMATION TECHNOLOGY

Click the links below to see complete Programs of Study along with the 4-year plans.

- **Cybersecurity** — **4 year plan**
- **Programming & Software Development** — **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: None

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: None

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. This course is a Dual Credit academic course for Fall: BIOL 1406 Biology I for Science Majors and Spring: BIOL 1407 Biology II for Science Majors, through successful application and enrollment in Lone Star College.

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.

LAW ENFORCEMENT

Click the links below to see the complete Program of Study along with the 4-year plan.

- **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 though cadet chain of command and promotions.

Career Cluster: Law & Public Service
Program of Study: Law Enforcement
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 though 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 though cadet chain of command and promotions.

WELDING

Click the links below to see the complete Program of Study along with the 4-year plan.

- **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.

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.

AUTOMOTIVE

Click the links below to see the complete Program of Study along with the 4-year plan.

- **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: None

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. This course is eligible as part of the Dual Credit Automotive Pathway for courses AUMT 1405: Introduction to Automotive Technology and AUMT 1407: Automotive Electrical Systems, through successful enrollment in Lone Star College.

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. This course is eligible as part of the Dual Credit Automotive Pathway for courses AUMT 1410: Automotive Brake System and AUMT 1416: Automotive Suspension and Steering Systems, through successful enrollment in Lone Star College and successful DC course prerequisites.

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: None

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 #: 61110SL0 **TIER 2**
Grades: 09-12 **1 Credit**

Prerequisite: None
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 I
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 I; 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 #: 61210SL0 **TIER 2**
Grades: 09-12 **1 Credit**
Prerequisite: English I
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. This course is a Dual Credit academic course for Fall: ENGL 1301 Composition & Rhetoric I and Spring: ENGL 1302 Composition & Rhetoric II, through successful application and enrollment in Lone Star College.

ENGLISH III AP

WISD #: 61310A00 **TIER 1**

Grades: 09-12 **1 Credit**

Prerequisite: English II 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: English II

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 III

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. This course is a Dual Credit academic course for Fall: ENGL 2332 Survey of World Literature Ancient through the 16th Century and Spring: ENGL 2332 Survey of World Literature 17th Century to the Present, through successful application and enrollment in Lone Star College.

ENGLISH IV AP
WISD #: 61410A00 **TIER 1**
Grades: 09-12 **1 Credit**
Prerequisite: English III; 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 #: 61410SL0 **TIER 2**
Grades: 09-12 **1 Credit**
Prerequisite: English III
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: None
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: None
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: None
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: None

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 I or II

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: None
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

ART

Program: Art
ART I
WISD #: 67000000 **TIER 2**
Grades: 09-12 **1 Credit**
Prerequisite: None
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.

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 History 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. This course is eligible as part of the academic dual credit courses Fall Semester ARTS 1303: Art History-Prehistoric to Gothic; Spring Semester ARTS 1304: Art History - Renaissance to Modern, through successful application and enrollment in Lone Star College.

Program: Art
ART APPRECIATION
WISD #: 67150000 **TIER 2**
Grades: 09-12 **1 Credit**
Prerequisite: None
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 (2D, 3D, and Drawing options)
WISD #: 67120A00 **TIER 1**
Grades: 09-12 **1 Credit**
Prerequisite: Two years of high school art

The student will develop a portfolio. In addition to completing the Art IV curriculum, students are required to submit a portfolio for as part of their AP Art & Design Exam, in either 2D, 3D, or Drawing discipline.

- 2D focuses on the use of two-dimensional (2-D) elements and principles of art and design, including point, line, shape, plane, layer, form, space, texture, color, value, opacity, transparency, time, unity, variety, rhythm, movement, proportion, scale, balance, emphasis, contrast, repetition, figure/ ground relationship, connection, juxtaposition, and hierarchy. Students should consider how materials, processes, and ideas can be used to make work that exists on a flat surface. Students can work with any materials, processes, and ideas. Graphic design, digital imaging, photography, collage, fabric design, weaving, fashion design, fashion illustration, painting, and printmaking
- 3D focuses on the application of three-dimensional (3-D) elements and principles of art and design, including point, line, shape, plane, layer, form, volume, mass, occupied/unoccupied space, texture, color, value, opacity, transparency, time; unity, variety, rhythm, movement, proportion, scale, balance, emphasis, contrast, repetition, connection, juxtaposition, hierarchy. Students should consider how materials, processes, and ideas can be used to make work that involves space and form.
- Drawing focuses on the use of mark-making, line, surface, space, light and shade, and composition. Students should consider marks that can be used to make drawings, the arrangement of marks, the materials and processes used to make marks, and relationships of marks and ideas.

DANCE

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.

MUSIC

Program: Music
CONCERT BAND I/II/III/IV
WISD #: 67410000/6742000/6743000/6744000 **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: Music
MUSIC THEORY AP
WISD #: 67830A00 **TIER 1**
Grades: 11-12 **1 Credit**
Prerequisite: Prospective students should be able to read and write musical notation and have basic performance skills with voice or an instrument.
AP Music Theory is designed for students who will pursue music as a career or desire to further enrich their music education. The main emphasis is placed on elements of music from the Common Practice period (1600-1750), however music of other stylistic periods will also be studied (Medieval, Renaissance, Romantic, 20th Century, and modern music). The focus of this course is to prepare students to take the AP Music Theory exam and/or similar coursework at the collegiate level. Students desiring to take this course must demonstrate readiness with aural skills and written knowledge.

THEATRE

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: Previous course in sequence or teacher approval.

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: None
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

ASL

Program: ASL
ASL I – AMERICAN SIGN LANGUAGE I
WISD #: 65810000 **TIER 2**
Grades: 09-12 **1 Credit**
Prerequisite: None
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.

FRENCH

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.

GERMAN

Program: German
GERMAN I
WISD #: 65150000 **TIER 2**
Grades: 09-12 **1 Credit**
Prerequisite: None
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.

SPANISH

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 #: 65320PN0 **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: Spanish Language & Culture
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 #: 65420AN0 **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; Pass TSI; Successful completion of Spanish 2311 in Fall to enroll in SPAN 2312 in Spring.
(Fall Semester SPAN 2311: Intermediate Spanish I; Spring Semester SPAN 2312: Intermediate Spanish II).
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. This course is a Dual Credit academic course for Fall: SPAN 2311 Intermediate Spanish I and Spring: SPAN 2312 Intermediate Spanish II, through successful application and enrollment in Lone Star College.

Program: Spanish
SPANISH V AP: Spanish Literature & Culture
WISD #: 65510A00 **TIER 1**
Grades: 09-12 **1 Credit**
Prerequisite: Spanish IV
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 Local Credit**
Prerequisite: None
Students work in offices and classrooms throughout the building.

STRIDE AIDE: KOOL KAT CREW
WISD #: 6684000L **TIER 2 (Does not count toward WGPA)**
Grades: 12 **1 Local Credit**
Prerequisites: Application process with teacher/counselor recommendation and approval. No discipline concerns.
This class is a success-oriented classroom aide program featuring supervised peer tutors assisting students with disabilities. The focus of the program is to meet the educational needs of the students with disabilities, to encourage inclusion, to provide positive encouragement, and to aid in the instruction process under the direction of the STRIDE Life Skills teacher. Students help increase social skills and build self-esteem, as well as help students with disabilities build true friendships and become more accepted and included in school activities. Kool Kat Crew students will be offered the opportunity to provide peer support as a volunteer during special events, such as Special Olympics sporting events, etc.

PARTNER PE LOCAL 1
WISD #: 84040000 **TIER 2 (Does not count toward WGPA)**
Grades: 12 **1 Local Credit**
Prerequisites: Application process with teacher/counselor recommendation and approval. No discipline concerns.
Partner Physical Education (PE) is a dynamic, interactive course that emphasizes teamwork, communication, and physical fitness through partner-based activities. This course is designed to promote an inclusive educational environment for special education inclusion students. Enrolled students participate in "reverse inclusion" in Physical Education classes. It is a course where positive peers make a positive impact in their fellow peer's lives. Students will engage in a variety of physical exercises, sports, and games that require collaboration, trust, and coordination with a partner. Partner PE is designed to meet the unique physical education needs of students with disabilities who cannot meet the requirements of regular physical education because of physical, social, emotional, or behavioral limitations. Throughout the course, students will participate in activities such as partner yoga, paired endurance challenges, cooperative sports, team-building exercises, and partner stretching routines. Emphasis will be placed on building mutual respect, improving communication, and fostering positive relationships through physical activity.

STUDENT COUNCIL LEADERSHIP
WISD #: 6682000L **TIER 2 (Does not count toward WGPA)**
Grades: 09-12 **1 Local 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.

MMWA (Mathematical 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 #: 6212AD00 **TIER 1**
Grades: 11-12 **.5 Credit**
Prerequisite: Qualifying TSI scores in ELA and Math; Algebra II
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. This course is a one semester Dual Credit academic course for Fall: MATH 1314 College Algebra, through successful application and enrollment in Lone Star College.

STATISTICS AP
WISD #: 62470A00 **TIER 1**
Grades: 09-12 **1 Credit**
Prerequisite: Algebra 2 (Honors Recommended)
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
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. This course is a one semester Dual Credit academic course for Spring: MATH 1342 Statistics, through successful application and enrollment in Lone Star College.

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) or Next Gen Accuplacer w/score of 263-275.
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. These courses are each a one semester Dual Credit academic course for either Fall or Spring: MATH 1316 Trigonometry, or Fall: Math 2412: Precalculus through successful application and enrollment in Lone Star College.

BUSINESS CALCULUS DUAL CREDIT (MATH 1325)

WISD #: 6249AD00 **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. This course is a one semester Dual Credit academic course for Spring: MATH 1325 Business Calculus, through successful application and enrollment in Lone Star College.

CALCULUS DUAL CREDIT (MATH 2413)
WISD #: 6246BD00 **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. This course is a one semester Dual Credit academic course for Spring: MATH 2413 Calculus I, through successful application and enrollment in Lone Star College.

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

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.

PARTNER PE LIFETIME
WISD #: 84010000 **TIER 2**
Grades: 09-12 **1 Credit**
Prerequisite: Application process with teacher/counselor recommendation and approval. No discipline concerns. Partner Physical Education (PE) is a dynamic, interactive course that emphasizes teamwork, communication, and physical fitness through partner-based activities. This course is designed to promote an inclusive educational environment for special education inclusion students. Enrolled students participate in "reverse inclusion" in Physical Education classes. It is a course where positive peers make a positive impact in their fellow peer's lives. Students will engage in a variety of physical exercises, sports, and games that require collaboration, trust, and coordination with a partner. Partner PE is designed to meet the unique physical education needs of students with disabilities who cannot meet the requirements of regular physical education because of physical, social, emotional, or behavioral limitations. Throughout the course, students will participate in activities such as partner yoga, paired endurance challenges, cooperative sports, team-building exercises, and partner stretching routines. Emphasis will be placed on building mutual respect, improving communication, and fostering positive relationships through physical activity.

PARTNER PE RECREATION 1
WISD #: 84020000 **TIER 2**
Grades: 09-12 **1 Credit**
Prerequisite: Application process with teacher/counselor recommendation and approval. No discipline concerns. Partner Physical Education (PE) is a dynamic, interactive course that emphasizes teamwork, communication, and physical fitness through partner-based activities. This course is designed to promote an inclusive educational environment for special education inclusion students. Enrolled students participate in "reverse inclusion" in Physical Education classes. It is a course where positive peers make a positive impact in their fellow peer's lives. Students will engage in a variety of physical exercises, sports, and games that require collaboration, trust, and coordination with a partner. Partner PE is designed to meet the unique physical education needs of students with disabilities who cannot meet the requirements of regular physical education because of physical, social, emotional, or behavioral limitations. Throughout the course, students will participate in activities such as partner yoga, paired endurance challenges, cooperative sports, team-building exercises, and partner stretching routines. Emphasis will be placed on building mutual respect, improving communication, and fostering positive relationships through physical activity.

PARTNER PE RECREATION 2
WISD #: 84030000 **TIER 2**
Grades: 11-12 **1 Credit**
Prerequisite: Application process with teacher/counselor recommendation and approval. No discipline concerns.

Partner Physical Education (PE) is a dynamic, interactive course that emphasizes teamwork, communication, and physical fitness through partner-based activities. This course is designed to promote an inclusive educational environment for special education inclusion students. Enrolled students participate in "reverse inclusion" in Physical Education classes. It is a course where positive peers make a positive impact in their fellow peer's lives. Students will engage in a variety of physical exercises, sports, and games that require collaboration, trust, and coordination with a partner. Partner PE is designed to meet the unique physical education needs of students with disabilities who cannot meet the requirements of regular physical education because of physical, social, emotional, or behavioral limitations. Throughout the course, students will participate in activities such as partner yoga, paired endurance challenges, cooperative sports, team-building exercises, and partner stretching routines. Emphasis will be placed on building mutual respect, improving communication, and fostering positive relationships through physical activity.

CHEERLEADING (PHYSICAL EDUCATION SUBSTITUTION)

CHEERLEADING YR I/II/III/IV
WISD #: PC130000/PC13000L **TIER 2**
Grades: 09-12 **1 Credit**
Prerequisite: Selection through a try-out process in the spring of each year

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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. This course is a Dual Credit academic course for Fall: BIOL 1406 Biology for Science Majors I and Spring: BIOL 1407 Biology for Science Majors II, through successful application and enrollment in Lone Star College.

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: Qualifying TSI Scores in ELA and Math; 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. This course is a Dual Credit academic course for Fall: PHYS 1401 College Physics I and Spring: PHYS 1402 College Physics II, through successful application and enrollment in Lone Star College.

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 AP 2

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. This course is a Dual Credit academic course for Fall: BIOL 2401 Human Anatomy & Physiology I and Spring: BIOL 2402 Human Anatomy & Physiology II, through successful application and enrollment in Lone Star College.

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. This course is a Dual Credit academic course for Fall and Spring: BIOL 1414 Intro to Biotechnology, through successful application and enrollment in Lone Star 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
World History Studies is a survey of the history of humankind. The major emphasis is on the study of significant people, events, and issues from the earliest times to the present. Traditional historical points of reference in world history are identified as students analyze important events and issues in western civilization as well as in civilizations in other parts of the world. Students evaluate the causes and effects of political and economic imperialism and of major political revolutions since the 17th century. Students examine the impact of geographic factors on major historic events and identify the historic origins of contemporary economic systems. Students analyze the process by which constitutional governments evolved as well as the ideas from historic documents that influenced that process. Students trace the historical development of important legal and political concepts. Students examine the history and impact of major religious and philosophical traditions. Students analyze the connections between major developments in science and technology and the growth of industrial economies, and they use the process of historical inquiry to research, interpret, and use multiple sources of evidence.

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.

WORLD HISTORY DUAL CREDIT
WISD #: 64210D00 **TIER 1**
Grades: 09-12 **1 Credit**
Prerequisite: World History, Qualifying placement scores
Honors class that surveys the social, political, economic, cultural, religious, and intellectual history of the world from the emergence of human cultures through the 15th century and 15th century to the present. The course examines major cultural regions of the world in Africa, the Americas, Asia, Europe, and Oceania and their global interactions over time. Themes include the emergence of early societies, the rise of civilizations, the development of political and legal systems, religion and philosophy, economic systems and trans-regional networks of exchange, maritime exploration and transoceanic empires, nation/state formation and industrialization, imperialism, global conflicts and resolutions, and

global economic integration. The course emphasizes the development, interaction and impact of global exchange.. This course is a Dual Credit academic course for Fall: HIST 2321 World Civilizations I and Spring: HIST 2322 World Civilizations II, through successful application and enrollment in Lone Star College.

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. This course is a Dual Credit academic course for Fall: HIST 1301 US History to 1877 and Spring: HIST 1302 US History 1877 to Present, through successful application and enrollment in Lone Star College.

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.

EUROPEAN HISTORY AP

WISD #: 64120A00 **TIER 1**

Grades: 11-12 **1 Credit**

Prerequisite: AP requirements

AP European History investigates significant events, individuals, developments, and processes from approximately 1450 to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary sources; developing historical arguments; making historical connections; and utilizing reasoning about comparison, causation, and continuity and change over time. The course also provides seven themes that students explore throughout the course in order to make connections among historical developments in different times and places: interaction of Europe and the world, economic and commercial development, cultural and intellectual development, states and other institutions of power, social organization and development, national and European identity, and technological and scientific innovations.

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. This course is a Dual Credit academic course for Spring: ECON 2301 Macroeconomics, through successful application and enrollment in Lone Star College.

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. This course is a Dual Credit academic course ECON 2302 Microeconomics, through successful application and enrollment in Lone Star College.

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.This course is a Dual Credit academic course for Fall: GOVT 2305 Federal Government, through successful application and enrollment in Lone Star College.

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. This course is a Dual Credit academic course: GOVT 2306 Texas Government, through successful application and enrollment in Lone Star College.

PERSONAL FINANCIAL LITERACY

WISD #: 64530000 **TIER 2**

Grades: 10-12 **.05 Credit**

Prerequisite:

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. This course is a Dual Credit academic course: PSYC 2301 General Psychology, through successful application and enrollment in Lone Star College.

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

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

Aligned Industry-Based Certifications

- 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

Animal Science

Agriculture, Food and Natural Resources Career Cluster

ANIMAL SCIENCE PROGRAM OF STUDY

Business & Industry Endorsement Career Goals:_____

9th Grade	Suggested Coursework		*Career-Related Electives*
[Honors]	English I	Academic Advisory	
[Honors]	Algebra I or Geometry	P.E. Equivalent or Fine Art	
[Honors]	Biology	Foreign Language I	
[Honors]	World Geography or Human Geo AP	7009 - Prin. of Ag, Food & Natural Resources (1)	
10th Grade	**Suggested Coursework**		***Career-Related Electives***
[Honors]	English II	Foreign Language II	
[Honors]	Geometry or Algebra II	7014 - Equine Science (.5)/7015 - Small Animal Management (.5)	
[Honors]	Chemistry	P.E. Equivalent or Fine Art	
[AP] [DC]	World History		
11th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English III	7010 - Livestock Production (1)	63110D0C - Biology Dual Credit (Scientific Research & Design) European History AP
[Honors]	Algebra II or 4th Math	7017 - Veterinary Medical Applications (1)	
[AP]	Physics		
[AP] [DC]	United States History		
12th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English IV	7016 - Advanced Animal Science	63110D0C - Biology Dual Credit (Scientific Research & Design) European History AP
	4th Math	7027 - Practicum in Ag, Food & Natural Resources (2)	
	4th Science		
[AP] [DC]	Government/Economics		

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)

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

Aligned Industry-Based Certifications

- 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

Additionall Stackable IBCs/License
- Nursery Floral License
- Horticulturist Certification

Example Aligned Occupations

Pesticide Handlers, Sprayers, and Applicators, Vegetation
Median Wage: $46,153
Annual Openings: 205
10-Year Growth: 17%

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

Farmers, Ranchers, and Other Agricultural Managers
Median Wage: $65,490
Annual Openings: 28,020
10-Year Growth: 4%

Data Source: 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.

Texas Education Agency

Plant Science

Agriculture, Food and Natural Resources Career Cluster

PLANT SCIENCE PROGRAM OF STUDY

Business & Industry Endorsement Career Goals:_____

9th Grade	Suggested Coursework		*Career-Related Electives*
[Honors]	English I	Academic Advisory	
[Honors]	Algebra I or Geometry	P.E. Equivalent or Fine Art	
[Honors]	Biology	Foreign Language I	
[Honors]	World Geography or Human Geo AP	7009 - Prin. of Ag, Food & Natural Resources	
10th Grade	**Suggested Coursework**		***Career-Related Electives***
[Honors]	English II	Foreign Language II	
[Honors]	Geometry or Algebra II	7028 - Greenhouse Production (1)	
[Honors]	Chemistry	P.E. Equivalent or Fine Art	
[AP] [DC]	World History		
11th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English III	7022 - Horticultural Science (1)	63110D0C - Biology Dual Credit (Scientific Research & Design) European History AP
[Honors]	Algebra II or 4th Math	7023 - Floral Design (1)	
[AP]	Physics		
[AP] [DC]	United States History		
12th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English IV	7024 - Advanced Floral Design (1)	63110D0C - Biology Dual Credit (Scientific Research & Design) European History AP
	4th Math	7027 - Practicum in Ag, Food & Natural Resources (2)	
	4th Science		
[AP] [DC]	Government/Economics		

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

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

Aligned Industry-Based Certifications

- 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%

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

TEA Texas Education Agency

Architectural Drafting and Design

Architecture and Construction Career Cluster

ARCHITECTURAL DRAFTING AND DESIGN PROGRAM OF STUDY

Business & Industry Endorsement Career Goals:_____

9th Grade	Suggested Coursework		*Career-Related Electives*
[Honors]	English I	Academic Advisory	
[Honors]	Algebra I or Geometry	P.E. Equivalent or Fine Art	
[Honors]	Biology	Foreign Language I	
[Honors]	World Geography or Human Geo AP	7030 - Principles of Construction (1)	
10th Grade	**Suggested Coursework**		***Career-Related Electives***
[Honors]	English II	Foreign Language II	7032 - Construction Technology I (1)
[Honors]	Geometry or Algebra II	7034 - Architectural Design I (1)	
[Honors]	Chemistry	P.E. Equivalent or Fine Art	
[AP] [DC]	World History		
11th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English III	7039 - Architectural Design II (2)	7033 - Construction Technology II (2) European History AP
[Honors]	Algebra II or 4th Math		
[AP]	Physics		
[AP] [DC]	United States History		
12th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English IV	7043 - Practicum in Architectural Design (2)	7029 - Practicum in Construction Technology (2) European History AP
	4th Math		
	4th Science		
[AP] [DC]	Government/Economics		
IBCs available: NCCER Core; Autodesk Associate (Certified User)			

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%

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

Texas Education Agency

Architecture and Construction Career Cluster

CARPENTRY PROGRAM OF STUDY

Business & Industry Endorsement Career Goals:_____

9th Grade	Suggested Coursework		*Career-Related Electives*
[Honors]	English I	Academic Advisory	
[Honors]	Algebra I or Geometry	P.E. Equivalent or Fine Art	
[Honors]	Biology	Foreign Language I	
[Honors]	World Geography or Human Geo AP	7030 - Principles of Construction (1)	
10th Grade	**Suggested Coursework**		***Career-Related Electives***
[Honors]	English II	Foreign Language II	
[Honors]	Geometry or Algebra II	7032 - Construction Technology I (1)	
[Honors]	Chemistry	P.E. Equivalent or Fine Art	
[AP] [DC]	World History		
11th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English III	7033 - Construction Technology II (2)	European History AP
[Honors]	Algebra II or 4th Math		
[AP]	Physics		
[AP] [DC]	United States History		
12th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English IV	7029 - Practicum in Construction Technology (2)	European History AP
	4th Math		
	4th Science		
[AP] [DC]	Government/Economics		

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

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	• Principles of Construction • Introduction to Welding
Level 2	• Plumbing Technology I
Level 3	• Plumbing Technology II
Level 4	• Practicum in Construction 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	• Complete a pre-apprenticeship in plumbing or pipe-fitting 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 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

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.

Texas Education Agency

Plumbing and Pipefitting

Architecture and Construction Career Cluster

PLUMBING AND PIPEFITTING PROGRAM OF STUDY

Business & Industry Endorsement Career Goals:_____

9th Grade	Suggested Coursework		*Career-Related Electives*
[Honors]	English I	Academic Advisory	7060-Introduction to Welding (1)
[Honors]	Algebra I or Geometry	P.E. Equivalent or Fine Art	
[Honors]	Biology	Foreign Language I	
[Honors]	World Geography or Human Geo AP	7030 - Principles of Construction (1)	
10th Grade	**Suggested Coursework**		***Career-Related Electives***
[Honors]	English II	Foreign Language II	
[Honors]	Geometry or Algebra II	7411 - Plumbing Technology I (1)	
[Honors]	Chemistry	P.E. Equivalent or Fine Art	
[AP] [DC]	World History		
11th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English III	7412 - Plumbing Technology II (2)	European History AP
[Honors]	Algebra II or 4th Math		
[AP]	Physics		
[AP] [DC]	United States History		
12th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English IV	7029 - Practicum in Construction Technology (2)	European History AP
	4th Math		
	4th Science		
[AP] [DC]	Government/Economics		

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

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

Digital Communications

Arts, Audio Visual Technology and Communications Career Cluster

DIGITAL COMMUNICATIONS PROGRAM OF STUDY

Business & Industry Endorsement Career Goals:_____

9th Grade	Suggested Coursework		*Career-Related Electives*
[Honors]	English I	Academic Advisory	Partner PE
[Honors]	Algebra I or Geometry	P.E. Equivalent or Fine Art	
[Honors]	Biology	Foreign Language I	
[Honors]	World Geography or Human Geo AP	7002-Principles of Arts, A/V Tech, and Comm. (1)	
10th Grade	**Suggested Coursework**		
[Honors]	English II	Foreign Language II	700500PC - Audio/Video Production I Lab 64620A00 AP Psychology Partner PE
[Honors]	Geometry or Algebra II	7005-A/V Production I or 7001-Digital Audio Tech I (1)	
[Honors]	Chemistry	P.E. Equivalent or Fine Art	
[AP] [DC]	World History		
11th Grade	**Suggested Coursework**		*Career-Related Electives*
[AP] [DC]	English III	77006-A/V Production II or 6999-Digital Audio Tech II (1)	700600PC - Audio/Video Production II Lab 64620A00 AP Psychology European History AP Partner PE Kool Kat Crew (L)
[Honors]	Algebra II or 4th Math		
[AP]	Physics		
[AP] [DC]	United States History		
12th Grade	**Suggested Coursework**		*Career-Related Electives*
[AP] [DC]	English IV	7038-Practicum in A/V Production (2)	64620A00 AP Psychology European History AP Partner PE Kool Kat Crew (L)
	4th Math		
	4th Science		
[AP] [DC]	Government/Economics		
IBCs available: Adobe Certified Professional			

Revised–May 2024

Arts, Audio Visual Technology, and Communication Career Cluster

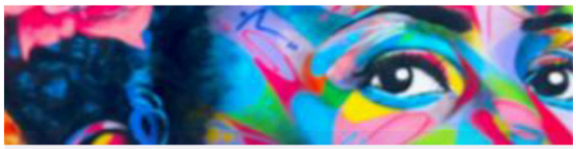
The Arts, Audio Visual Technology, and Communication (AAVTC) career cluster focuses on designing, producing, exhibiting, performing, writing, and publishing multimedia content requiring creative aptitude, fluency in computer and technology applications, and proficiency in oral and written communication. 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	• Principles of Arts, Audio/Video Technology, and Communications • Video Game Design
Level 2	• Animation I • Commercial Photography I • Commercial Photography I + Commercial Photography I Lab • Fashion Design I • Fashion Design I + Fashion Design I Lab
Level 3	• Animation II • Commercial Photography II • Commercial Photography II + Commercial Photography II Lab • Fashion Design II • Fashion Design II + Fashion Design II Lab • 3-D Modeling and Animation (Middle School only)
Level 4	• Practicum in Animation • Practicum in Commercial Photography • Practicum 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	• Shadow an art director at a branding firm or design agency • Intern in the marketing and communications department of a technology company
Expanded Learning Opportunities	• Participate in SkillsUSA or TSA • Participate in Student Television Network • Join 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%

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

Texas Education Agency

Graphic Design and Interactive Media

Arts, Audio Visual Technology and Communications Cluster

GRAPHIC DESIGN AND INTERACTIVE MEDIA PROGRAM OF STUDY

Business & Industry Endorsement Career Goals:_____

9th Grade	Suggested Coursework		*Career-Related Electives*
[Honors]	English I	Academic Advisory	7002 - Principles of Arts, A/V Tech, and Comm. 7074 - Video Game Design (1) Partner PE
[Honors]	Algebra I or Geometry	P.E. Equivalent or Fine Art	
[Honors]	Biology	Foreign Language I	
[Honors]	World Geography or Human Geo AP	CTE Elective	
10th Grade	**Suggested Coursework**		***Career-Related Electives***
[Honors]	English II	Foreign Language II	7311-Animation I (1) 7007000C - Commercial Photography I (1) 700700PC - Commercial Photography I & Lab (2) 7003000C - Fashion Design I (1) 700300PC - Fashion Design I & Lab (2) 64620A00 - AP Psychology Partner PE
[Honors]	Geometry or Algebra II	CTE Elective	
[Honors]	Chemistry	P.E. Equivalent or Fine Art	
[AP] [DC]	World History		
11th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English III	CTE Elective	7312-Animation II (1) 7008000C-Commercial Photography II (1) 700800PC - Commercial Photography I & Lab (2) 7004000C - Fashion Design II (1) 7004000C - Fashion Design II & Lab (2) 64620A00 AP Psychology European History AP Partner PE Kool Kat Crew (L)
[Honors]	Algebra II or 4th Math		
	Physics		
[AP] [DC]	United States History		
12th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English IV	CTE Practicum (2)	7313-Practicum in Animation (2) 7330- Practicum in Commercial Photography (2) 7206- Practicum in Fashion Design (2) 64620A00 AP Psychology European History AP Partner PE Kool Kat Crew (L)
	4th Math		
	4th Science		
[AP] [DC]	Government/Economics		
IBCs available: Adobe Certified Professional; Autodesk Associate; Unity Certified User: Programmer			

Revised–June 2024

Business, Marketing, and Finance Career Cluster

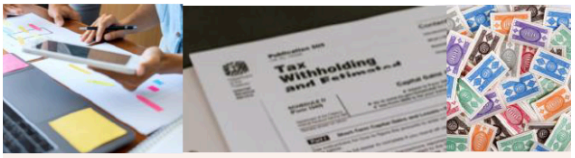
The Business, Marketing, and Finance career cluster focuses on careers in planning, organizing, directing, and evaluating business functions essential to efficient and productive business operations. This career cluster includes occupations ranging from business owner and entrepreneur to accountant, 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	• Intern with a certified public accountant (CPA) at a local business • Intern with a city or county auditor's office • Shadow a financial advisor as an intern at an investment company
Expanded Learning Opportunities	• Participate in BPA, DECA, or FBLA • Explore student membership in professional organizations such as AICPA, CIMA, or TXCPA

Aligned Industry-Based Certifications

- 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.

Texas Education Agency

Accounting and Financial Services

Business, Marketing, and Finance Career Cluster

ACCOUNTING AND FINANCIAL SERVICES PROGRAM OF STUDY

Business & Industry Endorsement Career Goals:_____

9th Grade	Suggested Coursework		*Career-Related Electives*
[Honors]	English I	Academic Advisory	7082000C - Business Information Management I
[Honors]	Algebra I or Geometry	P.E. Equivalent or Fine Art	
[Honors]	Biology	Foreign Language I	
[Honors]	World Geography or Human Geo AP	7081-Principles of Business, Marketing & Finance (1)	
10th Grade	**Suggested Coursework**		***Career-Related Electives***
[Honors]	English II	Foreign Language II	7087000C - Entrepreneurship I
[Honors]	Geometry or Algebra II	7092-Accounting I (1)	
[Honors]	Chemistry	P.E. Equivalent or Fine Art	
[AP] [DC]	World History		
11th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English III	7093-Accounting II (1)	62480D00 - Statistics Dual Credit European History AP
[Honors]	Algebra II or 4th Math		
	Physics		
[AP] [DC]	United States History		
12th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English IV	7099-Practicum in Business Management (2)	62480D00 - Statistics Dual Credit European History AP
	4th Math		
	4th Science		
[AP] [DC]	Government/Economics		
IBCs available: Microsoft Office Specialist: Excel			

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

Aligned Industry-Based Certifications

- 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%

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

Texas Education Agency

Business Management

Business, Marketing, and Finance Career Cluster

BUSINESS MANAGEMENT PROGRAM OF STUDY

Business & Industry Endorsement Career Goals:_____

9th Grade	Suggested Coursework		*Career-Related Electives*
[Honors]	English I	Academic Advisory	Partner PE
[Honors]	Algebra I or Geometry	P.E. Equivalent or Fine Art	
[Honors]	Biology	Foreign Language I	
[Honors]	World Geography or Human Geo AP	7081 - Principles of Business, Marketing & Finance (1)	
10th Grade	**Suggested Coursework**		***Career-Related Electives***
[Honors]	English II	Foreign Language II	64620A00 AP Psychology Partner PE
[Honors]	Geometry or Algebra II	7082 - Business Information Management I (1)	
[Honors]	Chemistry	P.E. Equivalent or Fine Art	
[AP] [DC]	World History		
11th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English III	7085 - Business Information Management II (1)	64620A00 AP Psychology European History AP Partner PE Kool Kat Crew (L)
[Honors]	Algebra II or 4th Math	7086 - Business Management (1)	
	Physics	7087 - Entrepreneurship I (1)	
[AP] [DC]	United States History		
12th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English IV	7099 - Practicum in Business Management (2)	64620A00 AP Psychology European History AP Partner PE Kool Kat Crew (L)
	4th Math		
	4th Science		
[AP] [DC]	Government/Economics		
IBCs available: Microsoft Office Specialist: Word, Excel			

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

Aligned Industry-Based Certifications

- Stukent 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. Retrieved3/8/2024.

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

Marketing and Sales

Business, Marketing, and Finance Career Cluster

MARKETING AND SALES PROGRAM OF STUDY

Business & Industry Endorsement Career Goals:_____

9th Grade	Suggested Coursework		*Career-Related Electives*
[Honors]	English I	Academic Advisory	Partner PE
[Honors]	Algebra I or Geometry	P.E. Equivalent or Fine Art	
[Honors]	Biology	Foreign Language I	
[Honors]	World Geography or Human Geo AP	7081 - Principles of Business, Marketing & Finance (1)	
10th Grade	**Suggested Coursework**		***Career-Related Electives***
[Honors]	English II	Foreign Language II	7087 - Entrepreneurship I (1) 64620A00 AP Psychology Partner PE
[Honors]	Geometry or Algebra II	7090 - Sports and Ent. Marketing (.5)/7204 - Social Media Marketing (.5)	
[Honors]	Chemistry	P.E. Equivalent or Fine Art	
[AP] [DC]	World History		
11th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English III	7098 - Fundamentals of Real Estate (2)	64620A00 AP Psychology European History AP Partner PE Kool Kat Crew (L)
[Honors]	Algebra II or 4th Math		
	Physics	7087 - Entrepreneurship I (1)	
[AP] [DC]	United States History		
12th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English IV	7091 - Practicum in Marketing (2)	64620A00 AP Psychology European History AP Partner PE Kool Kat Crew (L)
	4th Math		
	4th Science		
[AP] [DC]	Government/Economics		
IBCs available: Student Social Media Marketing; Real Estate Sales Agent License			

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%

Data Source: TexasWages, Texas Workforce Commission. Retrived 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 Early Learning program of study will fulfill requirements of the Public Service endorsement.

Texas Education Agency

Early Learning

Education and Training Career Cluster

EARLY LEARNING PROGRAM OF STUDY

Public Service Endorsement Career Goals:_____

9th Grade	Suggested Coursework		*Career-Related Electives*
[Honors]	English I	Academic Advisory	Partner PE
[Honors]	Algebra I or Geometry	P.E. Equivalent or Fine Art	
[Honors]	Biology	Foreign Language I	
[Honors]	World Geography or Human Geo AP	7131-Principles of Education & Training (1)	
10th Grade	**Suggested Coursework**		***Career-Related Electives***
[Honors]	English II	Foreign Language II	64620A00 AP Psychology Partner PE
[Honors]	Geometry or Algebra II	7112-Child Development (1)	
[Honors]	Chemistry	P.E. Equivalent or Fine Art	
[AP] [DC]	World History		
11th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English III	7113-Child Guidance (2)	64620A00 AP Psychology European History AP Partner PE Kool Kat Crew (L)
[Honors]	Algebra II or 4th Math		
	Physics		
[AP] [DC]	United States History		
12th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English IV	7118-Practicum in Early Learning (2)	64620A00 AP Psychology European History AP Partner PE Kool Kat Crew (L)
	4th Math		
	4th Science		
[AP] [DC]	Government/Economics		
IBCs available: Educational Aide I			

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%

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

Texas Education Agency

Teaching and Training

Education and Training Career Cluster

TEACHING AND TRAINING PROGRAM OF STUDY

Public Service Endorsement Career Goals:_____

9th Grade	Suggested Coursework		*Career-Related Electives*
[Honors]	English I	Academic Advisory	
[Honors]	Algebra I or Geometry	P.E. Equivalent or Fine Art	
[Honors]	Biology	Foreign Language I	Partner PE
[Honors]	World Geography or Human Geo AP	7131-Principles of Education & Training (1)	
10th Grade	**Suggested Coursework**		***Career-Related Electives***
[Honors]	English II	Foreign Language II	
[Honors]	Geometry or Algebra II	7112-Child Development (1)	64620A00 AP Psychology
[Honors]	Chemistry	P.E. Equivalent or Fine Art	Partner PE
[AP] [DC]	World History		
11th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English III	7132-Instructional Practices (2)	
[Honors]	Algebra II or 4th Math		64620A00 AP Psychology
	Physics		European History AP
[AP] [DC]	United States History		Partner PE Kool Kat Crew (L)
12th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English IV	7134-Practicum in Education & Training (2)	
	4th Math		64620A00 AP Psychology
	4th Science		European History AP
[AP] [DC]	Government/Economics		Partner PE Kool Kat Crew (L)
IBCs available: Educational Aide I			

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 incudes applying scientific, mathematical, and empirical evidence to solve problems through innovation, design, construction, operation, and maintenance of different engineering systems.

Secondary Courses for High School Credit

Level 1	• Principles of Applied Engineering
Level 2	• 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	• Intern at an engineering, robotics, or aerospace company. • Visit an engineering firm and shadow multiple types of engineers.
Expanded Learning Opportunities	• 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%

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 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.

Engineering Career Cluster

ENGINEERING FOUNDATIONS PROGRAM OF STUDY

Business & Industry or STEM Endorsement Career Goals:_____

9th Grade	Suggested Coursework		*Career-Related Electives*
[Honors]	English I	Academic Advisory	
[Honors]	Algebra I or Geometry	P.E. Equivalent or Fine Art	
[Honors]	Biology	Foreign Language I	
[Honors]	World Geography or Human Geo AP	7069-Principles of Applied Engineering (1)	
10th Grade	**Suggested Coursework**		***Career-Related Electives***
[Honors]	English II	Foreign Language II	
[Honors]	Geometry or Algebra II	7073-Robotics I (1)	
[Honors]	Chemistry	P.E. Equivalent or Fine Art	
[AP] [DC]	World History		
11th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English III	7071-Engineering Design and Presentation I (1)	63110D0C - Biology Dual Credit (Scientific Research & Design) 62450A00 - Calculus AP 63520A00 - Physics AP I European History AP
[Honors]	Algebra II or 4th Math	7075-Robotics II (1)	
	Physics		
[AP] [DC]	United States History		
12th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English IV	7070-Engineering Design and Presentation II (2)	63110D0C - Biology Dual Credit (Scientific Research & Design) 63530A00 - Physics AP2 European History A
	4th Math		
	4th Science		
[AP] [DC]	Government/Economics		
IBCs available: Autodesk Associate; FANUC Robot Operator			

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	• Principles of Health Science (recommended for 10th grade)
Level 2	• Medical Terminology
Level 3	• Anatomy and Physiology • Health Science Theory • Health Science Theory + Health Science Clinical
Level 4	• 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%

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 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.

Texas Education Agency

Diagnostic and Therapeutic Services

Health Science Career Cluster

DIAGNOSTIC AND THERAPEUTIC SERVICES PROGRAM OF STUDY

Public Service Endorsement Career Goals:_____

9th Grade	Suggested Coursework		*Career-Related Electives*
[Honors]	English I	Academic Advisory	
[Honors]	Algebra I or Geometry	P.E. Equivalent or Fine Art	
[Honors]	Biology	Foreign Language I	Partner PE
[Honors]	World Geography or Human Geo AP		
10th Grade	**Suggested Coursework**		***Career-Related Electives***
[Honors]	English II	Foreign Language II	
[Honors]	Geometry or Algebra II	7101 - Principles of Health Science (1)	64620A00 AP Psychology Partner PE
[Honors]	Chemistry	P.E. Equivalent or Fine Art	
[AP] [DC]	World History		
11th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English III	7102 - Health Science Clinical (2)	7100 - Health Science Theory (1) 64620A00 AP Psychology European History AP Partner PE Kool Kat Crew (L)
[Honors]	Algebra II or 4th Math		
	Physics	7109-Medical Terminology (1)	
[AP] [DC]	United States History		
12th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English IV	7105xxxx-Practicum in Health Science (2)	7105CNAC - CNA 7105PHRC - Pharmacy Tech 7105MASC - CCMA 7105EMTC - EMT 64620A00 AP Psychology European History AP Partner PE Kool Kat Crew (L)
	4th Math		
[DC]	Anatomy and Physiology		
[AP] [DC]	Government/Economics		
IBCs available: Certified Nurse Aide; Certified Clinical Medical Assistant; Pharmacy Technician; Emergency Medical Technician			

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	• 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	• 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%

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

Culinary Arts

Hospitality and Tourism Career Cluster

CULINARY ARTS PROGRAM OF STUDY

Business & Industry Endorsement Career Goals:_____

9th Grade	Suggested Coursework		*Career-Related Electives*
[Honors]	English I	Academic Advisory	Partner PE
[Honors]	Algebra I or Geometry	P.E. Equivalent or Fine Art	
[Honors]	Biology	Foreign Language I	
[Honors]	World Geography or Human Geo AP	7052-Introduction to Culinary Arts (1)	
10th Grade	**Suggested Coursework**		***Career-Related Electives***
[Honors]	English II	Foreign Language II	64620A00 AP Psychology Partner PE
[Honors]	Geometry or Algebra II	7051-Culinary Arts (2)	
[Honors]	Chemistry		
[AP] [DC]	World History	P.E. Equivalent or Fine Art	
11th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English III	7053-Advanced Culinary Arts (2)	64620A00 AP Psychology European History AP Partner PE Kool Kat Crew (L)
[Honors]	Algebra II or 4th Math		
	Physics		
[AP] [DC]	United States History		
12th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English IV	7055- Practicum in Culinary Arts (2)	64620A00 AP Psychology European History AP Partner PE Kool Kat Crew (L)
	4th Math		
	4th Science		
[AP] [DC]	Government/Economics		
IBCs available: ServSafe Manager			

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

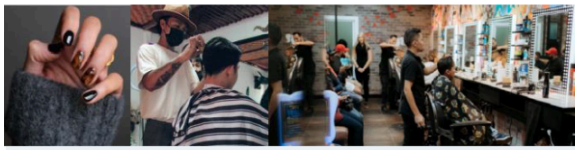
Approved in ESC Regions 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 17, 18, 19, & 20

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.

Texas Education Agency

Cosmetology and Personal Care Services

Human Services Career Cluster

COSMETOLOGY AND PERSONAL CARE SERVICES PROGRAM OF STUDY

Public Service Endorsement Career Goals:_____

9th Grade	Suggested Coursework		*Career-Related Electives*
[Honors]	English I	Academic Advisory	
[Honors]	Algebra I or Geometry	P.E. Equivalent or Fine Art	
[Honors]	Biology	Foreign Language I	Partner PE
[Honors]	World Geography or Human Geo AP		
10th Grade	**Suggested Coursework**		***Career-Related Electives***
[Honors]	English II	Foreign Language II	
[Honors]	Geometry or Algebra II	7160 - Introduction to Cosmetology (1)	64620A00 AP Psychology Partner PE
[Honors]	Chemistry	P.E. Equivalent or Fine Art	
[AP] [DC]	World History		
11th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English III	716100PC - Cosmetology I & Lab DC (2)	64620A00 AP Psychology European History AP Partner PE Kool Kat Crew (L)
[Honors]	Algebra II or 4th Math		
	Physics		
[AP] [DC]	United States History		
12th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English IV	716200PC - Cosmetology II & Lab DC (3)	64620A00 AP Psychology European History AP Partner PE Kool Kat Crew (L)
	4th Math		
	4th Science		
[AP] [DC]	Government/Economics		
IBCs available: Cosmetology Operator License			

Revised–June 2024

Information Technology Career Cluster

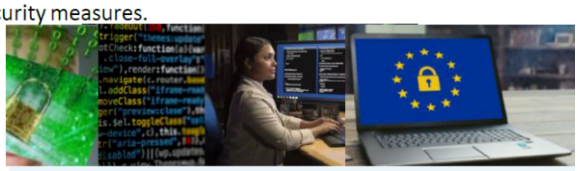
The Information Technology (IT) career cluster focuses on the design, development, support, and management of hardware, software, multimedia, and systems integration services. This career cluster includes occupations ranging from Software Developer and Programmer to Cybersecurity Specialists and Network 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	• Intern at a local bank, hospital, or government office to develop skills in implementing security measures • Interview with an information security analyst to learn how they plan for, monitor, and upgrade security measures at their organization
Expanded Learning Opportunities	• Participate in a Hackathon • Participate 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.

Cybersecurity

Information Technology Career Cluster

CYBERSECURITY PROGRAM OF STUDY

Business & Industry or STEM Endorsement Career Goals:_____

9th Grade	Suggested Coursework		*Career-Related Electives*
[Honors]	English I	Academic Advisory	7199-Fundamentals of Computer Science 7200-Computer Science I *Prereq- Alg. 1 *Can fulfill Foreign Language req. 72110A0C - AP Computer Science Principles (1) *Prereq- Alg. 1 *Can fulfill Foreign Language req.
[Honors]	Algebra I or Geometry	P.E. Equivalent or Fine Art	
[Honors]	Biology	Foreign Language I	
[Honors]	World Geography or Human Geo AP	7300-Foundations of Cybersecurity (1)	
10th Grade	**Suggested Coursework**		***Career-Related Electives***
[Honors]	English II	7200-Computer Science I	7203-Computer Science II *Can fulfill Foreign Language req. 7211 - AP Computer Science Principles
[Honors]	Geometry or Algebra II	7042-Computer Maintenance	
[Honors]	Chemistry	P.E. Equivalent or Fine Art	
[AP] [DC]	World History	Foreign Language II	
11th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English III	7048-Networking (1)	7203-Computer Science II *Can fulfill Foreign Language req. European History AP
[Honors]	Algebra II or 4th Math		
	Physics		
[AP] [DC]	United States History		
12th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English IV	7040- Practicum in Information Technology (2)	7206-Computer Science III European History AP
	4th Math		
	4th Science	7301-Cybersecurity Capstone (1)	
[AP] [DC]	Government/Economics		
IBCs available: CompTIA IT Fundamentals+; ComTIA A+; CompTIA Network+; CompTIA Security+			

Revised–June 2024

Information Technology Career Cluster

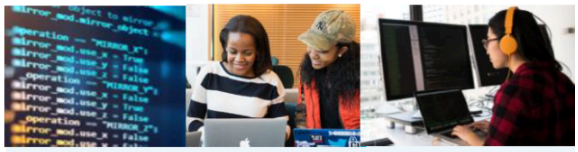
The Information Technology (IT) career cluster focuses on the design, development, support, and management of hardware, software, multimedia, and systems integration services. This career cluster includes occupations ranging from Software Developer and Programmer to Cybersecurity Specialists and Network 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	• Fundamentals of Computer Science
Level 2	• Computer Science I • AP Computer Science Principles
Level 3	• Computer Science II
Level 4	• Computer Science III • Practicum in Information Technology • Scientific 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	• Intern at a local IT company to develop skills in programming and coding • Shadow a software developer to learn how they create and improve software to support efficient processes at their company
Expanded Learning Opportunities	• Program and create a game • Participate 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.

Programming and Software Development

Information Technology Career Cluster

PROGRAMMING AND SOFTWARE DEVELOPMENT PROGRAM OF STUDY

Business & Industry or STEM Endorsement Career Goals:_____

9th Grade	Suggested Coursework		*Career-Related Electives*
[Honors]	English I	Academic Advisory	7199 - Fundamentals of Computer Science (1)
[Honors]	Algebra I or Geometry	P.E. Equivalent or Fine Art	
[Honors]	Biology	7200 - Computer Science I (1)	
[Honors]	World Geography or Human Geo AP		
10th Grade	**Suggested Coursework**		***Career-Related Electives***
[Honors]	English II	7203 - Computer Science II (1)	7042 - Computer Maintenance (1) 7211 - AP Computer Science Principles
[Honors]	Geometry or Algebra II	P.E. Equivalent or Fine Art	
[Honors]	Chemistry		
[AP] [DC]	World History		
11th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English III	7206 - Computer Science III	7301 - Cybersecurity Capstone (1) 7203-Computer Science II (1) *Can fulfill Foreign Language req. European History AP
[Honors]	Algebra II or 4th Math		
	Physics		
[AP] [DC]	United States History		
12th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English IV	7040 - Practicum in Information Technology (2)	63110D0C - Biology Dual Credit (Scientific Research & Design) European History AP)
	4th Math		
	4th Science		
[AP] [DC]	Government/Economics		
IBCs available: Certified Entry-Level Python Programmer (PCEP)			

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	• Principles of Law, Public Safety, Corrections, and Security
Level 2	• Law Enforcement I • Criminal Investigation • Court Systems and Practices (not in this Program of Study)
Level 3	• Law Enforcement II
Level 4	• Forensic Science • Practicum in Law, Public Safety, Corrections, and Security

Aligned Advanced Academic Courses

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

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

Work-Based Learning and Expanded Learning Opportunities

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

Aligned Industry-Based Certifications

- Non-Commissioned Security Officer Level II License



Example Postsecondary Opportunities

Apprenticeships
- Security Specialist

Associate Degrees
- Criminal Justice
- Law Enforcement

Bachelor's Degrees
- Forensic Science
- Criminal Justice

Master's, Doctoral, and Professional Degrees
- Criminal Justice
- Criminology and Criminal Justice

Additional Stackable IBCs/Licensures
- Jailer – Basic County Corrections
- Basic Telecommunicator

Example Aligned Occupations

Police and Sheriff's Patrol Officers
Median Wage: $64,373
Annual Openings: 5,424
10-Year Growth: 13%

Detectives and Criminal Investigators
Median Wage: $82,090
Annual Openings: 1,536
10-Year Growth: 8%

First-Line Supervisors of Police and Detectives
Median Wage: $97,571
Annual Openings: 5,461
10-Year Growth: 12%

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

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

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

Law Enforcement

Law and Public Service Career Cluster

LAW ENFORCEMENT PROGRAM OF STUDY

Public Service Endorsement Career Goals:_____

9th Grade	Suggested Coursework		*Career-Related Electives*
[Honors]	English I	Academic Advisory	
[Honors]	Algebra I or Geometry	P.E. Equivalent or Fine Art	
[Honors]	Biology	Foreign Language I	
[Honors]	World Geography or Human Geo AP	7120 - Principles of Law, Public Safety and Corrections (1)	
10th Grade	**Suggested Coursework**		***Career-Related Electives***
[Honors]	English II	Foreign Language II	7126 - Criminal Investigations (1)
[Honors]	Geometry, Alg. Reason or Alg. 2	7122 - Law Enforcement I (1)	
[Honors]	Chemistry	P.E. Equivalent or Fine Art	
[AP] [DC]	World History		
11th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English III	7123 - Law Enforcement II (1)	
[Honors]	Algebra II or 4th year math	7126 - Criminal Investigations (1)	
	Physics	7127-Court Systems and Practices (1)	
[AP] [DC]	United States History		
12th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English IV	7124 - Practicum in Law, Public Safety and Corrections (2)	
	4th Math		
	Forensic Science		
[AP] [DC]	Government/Economics		
IBCs available: Non-Commissioned Security Officer Level II			

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



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

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 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

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

Texas Education Agency

Manufacturing Career Cluster

WELDING PROGRAM OF STUDY

Business & Industry Endorsement Career Goals:_____

9th Grade	Suggested Coursework		*Career-Related Electives*
[Honors]	English I	Academic Advisory	
[Honors]	Algebra I or Geometry	P.E. Equivalent or Fine Art	
[Honors]	Biology	Foreign Language I	
[Honors]	World Geography or Human Geo AP	7060-Introduction to Welding (1)	
10th Grade	**Suggested Coursework**		***Career-Related Electives***
[Honors]	English II	7062-Welding I (1)	
[Honors]	Geometry or Algebra II	Foreign Language II	
[Honors]	Chemistry	P.E. Equivalent or Fine Art	
[AP] [DC]	World History		
11th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English III	7063-Welding II (2)	European History AP
[Honors]	Algebra II or 4th Math		
	Physics		
[AP] [DC]	United States History		
12th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English IV	7065- Practicum in Manufacturing (2)	European History AP
	4th Math		
	4th Science		
[AP] [DC]	Government/Economics		
IBCs available: AWS SENSE; AWS D1.1 Structural Steel; AD9.1 Sheet Metal Welding			

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

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

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



Example Postsecondary Opportunities

Apprenticeships
- Automotive Technician Apprenticeship

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

Bachelor's Degrees
- Autobody/Collision and Repair Technology
- Heavy Equipment Maintenance Technology

Additional Stackable IBCs/License
- Automobile and Light Truck Certification (A1 – A9)

Example Aligned Occupations

Automotive Service Technicians and Mechanics
Median Wage: $44,809
Annual Openings: 6,285
10-Year Growth: 10%

Bus and Truck Mechanics and Diesel Engine Specialists
Median Wage: $50,967
Annual Openings: 3,096
10-Year Growth: 19%

First-Line Supervisors of Mechanics, Installers, and Repairers
Median Wage: $66,535
Annual Openings: 5,019
10-Year Growth: 19%

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

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

Automotive and Collision Repair

Transportation, Distribution, and Logistics Career Cluster

AUTOMOTIVE AND COLLISION REPAIR PROGRAM OF STUDY

Business & Industry Endorsement Career Goals:_____

9th Grade	Suggested Coursework		*Career-Related Electives*
[Honors]	English I	Academic Advisory	
[Honors]	Algebra I or Geometry	P.E. Equivalent or Fine Art	
[Honors]	Biology	Foreign Language I	
[Honors]	World Geography or Human Geo AP	7139-Automotive Basics (1)	
10th Grade	**Suggested Coursework**		***Career-Related Electives***
[Honors]	English II	7140-Automotive Technology I (2)	
[Honors]	Geometry or Algebra II		
[Honors]	Chemistry	Foreign Language II	
[AP] [DC]	World History	P.E. Equivalent or Fine Art	
11th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English III	7141-Automotive Technology II (2)	European History AP
[Honors]	Algebra II or 4th Math		
	Physics		
[AP] [DC]	United States History		
12th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English IV	7137- Practicum in Transportation Systems (2)	European History AP
	4th Math		
	4th Science		
[AP] [DC]	Government/Economics		
IBCs available: ASE Entry-Level (multiple)			

APPENDIX 2 - FINE ARTS PROGRAMS OF STUDY

Arts, Audio Visual Technology and Communications Career Cluster

CHOIR PROGRAM OF STUDY

Arts and Humanities Endorsement Career Goals:_____

9th Grade	Suggested Coursework		*Career-Related Electives*
	English I	Academic Advisory	
[Honors]	Algebra I or Geometry	P.E. Equivalent	
[Honors]	Biology	Foreign Language I	
[Honors]	World Geography or Human Geo AP	6801 - JV Choir I	
10th Grade	**Suggested Coursework**		***Career-Related Electives***
[Honors]	English II	Foreign Language II	6781 - Music Theory I 7001 - Digital Audio Tech I 7081-Principles of Business, Marketing & Finance
[Honors]	Geometry or Algebra II	6802 - JV Choir II	
[Honors]	Chemistry	CTE Elective	
[AP] [DC]	World History		
11th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English III	6813 - JV Choir III/ 6813 - V Choir III	Recommended - additional LOTE 6782 - Music Theory II 7001 - Digital Audio Tech I European History AP
[Honors]	Algebra II or 4th Math		
	Anatomy and Physiology		
[AP] [DC]	United States History		
12th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English IV		European History AP
	4th Math		
	4th Science		
[AP] [DC]	Government/Economics		

Arts, Audio Visual Technology and Communications Career Cluster

INSTRUMENTAL PERFORMANCE PROGRAM OF STUDY (BAND, ORCHESTRA, GUITAR)

Arts and Humanities Endorsement Career Goals:_____

9th Grade	Suggested Coursework		*Career-Related Electives*
	English I	Academic Advisory	6741 - Concert Band I 6751 - Symphonic Band I 6731 - Wind Ensemble I 6735 - Orchestra I 67350001 - Intermediate Orch I 67350002 - Advanced Orch I 6820 - Guitar 6761 - Jazz Band 1
[Honors]	Algebra I or Geometry	P.E. Equivalent	
[Honors]	Biology	Foreign Language I	
[Honors]	World Geography or Human Geo AP		
10th Grade	**Suggested Coursework**		***Career-Related Electives***
[Honors]	English II	Foreign Language II	6742 - Concert Band II 6752 - Symphonic Band II 6732 - Wind Ensemble II 6736 - Orchestra II 67360001 - Intermediate Orch II 67360002 - Advanced Orch II 6821 - Guitar II 6762-Jazz Band II 6781 - Music Theory I 7001 - Digital Audio Tech I 7081-Principles of Business, Marketing & Finance
[Honors]	Geometry or Algebra II	CTE Elective	
[Honors]	Chemistry		
[AP] [DC]	World History		
11th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English III		6743 - Concert Band III 6753 - Symphonic Band III 6733 - Wind Ensemble III 6737 - Orchestra III 67370001 - Intermediate Orch III 67370002 - Advanced Orch III 6823 - Guitar III 6763-Jazz Band III Foreign Language III 6781 - Music Theory I 7001 - Digital Audio Tech I 6782-Music Theory II European History AP
[Honors]	Algebra II or 4th Math		
	Anatomy and Physiology		
[AP] [DC]	United States History		
12th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English IV		6744-Concert Band IV 6754-Symphonic Band IV 6734-Wind Ensemble IV 6738 - Orchestra IV 67380001 - Intermediate Orch IV 67380002 - Advanced Orch IV 6824 - Guitar IV 6764-Jazz Band IV 6782-Music Theory II European History AP
	4th Math		
	4th Science		
[AP] [DC]	Government/Economics		

Arts, Audio Visual Technology and Communications Career Cluster

TECHNICAL THEATRE PROGRAM OF STUDY

Arts and Humanities Endorsement Career Goals:_____

9th Grade	Suggested Coursework		*Career-Related Electives*
	English I	Academic Advisory	6721-Theater Arts I 6801 - JV Choir I 6835 - Dance I 6700 - Art I
[Honors]	Algebra I or Geometry	Foreign Language I	
[Honors]	Biology	P.E. Equivalent 1	
[Honors]	World Geography or Human Geo AP	6725 - Technical Theater I	
10th Grade	**Suggested Coursework**		***Career-Related Electives***
[Honors]	English II	Foreign Language II	6722-Theater Arts II 6802 - JV Choir II 6836 - Dance II 7003 - Fashion Design I 7081-Principles of Business, Marketing & Finance 7060000C - Introduction to Welding 7030000C - Principles of Construction
[Honors]	Geometry or Algebra II	CTE Elective	
[Honors]	Chemistry	6726 - Technical Theater II	
[AP] [DC]	World History		
11th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English III	6727 - Technical Theater III	6723-Theater Arts III 6803 - JV Choir III 6837 - Dance III Foreign Language III 7003 - Fashion Design I 7004 - Fashion Design II European History AP
[Honors]	Algebra II or 4th Math		
	Physics		
[AP] [DC]	United States History		
12th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English IV	6728 - Technical Theater IV	6724 -Theater Arts IV 6804 - JV Choir IV 6838 - Dance IV 7004 - Fashion Design II European History AP
	4th Math		
	4th Science		
[AP] [DC]	Government/Economics		

Arts, Audio Visual Technology and Communications Career Cluster

THEATER PROGRAM OF STUDY

Arts and Humanities Endorsement Career Goals:_____

9th Grade	Suggested Coursework		*Career-Related Electives*
	English I	Academic Advisory	6801 - JV Choir I 6835 - Dance I 6725 - Technical Theater I
[Honors]	Algebra I or Geometry	Foreign Language I	
[Honors]	Biology	P.E. Equivalent 1	
[Honors]	World Geography or Human Geo AP	6721-Theater Arts I	
10th Grade	**Suggested Coursework**		***Career-Related Electives***
[Honors]	English II	Foreign Language II	6802 - JV Choir II 6836 - Dance II 7003 - Fashion Design I 6726 - Technical Theater II 7081-Principles of Business, Marketing & Finance
[Honors]	Geometry or Algebra II	CTE Elective	
[Honors]	Chemistry	6722-Theater Arts II	
[AP] [DC]	World History		
11th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English III	6723-Theater Arts III	6727 - Technical Theater III 6803 - JV Choir III 6837 - Dance III Foreign Language III 7003 - Fashion Design I 7004 - Fashion Design II European History AP
[Honors]	Algebra II or 4th Math		
	Physics		
[AP] [DC]	United States History		
12th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English IV	6724 -Theater Arts IV	6728 - Technical Theater IV 6804 - JV Choir IV 6838 - Dance IV 7004 - Fashion Design II European History AP
	4th Math		
	4th Science		
[AP] [DC]	Government/Economics		

Arts, Audio Visual Technology and Communications Career Cluster

VISUAL ART PROGRAM OF STUDY

Arts and Humanities Endorsement Career Goals:_____

9th Grade	Suggested Coursework		*Career-Related Electives*
	English I	Academic Advisory	6721-Theater Arts I 6801 - JV Choir I 6835 - Dance I 6700 - Art I
[Honors]	Algebra I or Geometry	Foreign Language I	
[Honors]	Biology	P.E. Equivalent 1	
[Honors]	World Geography or Human Geo AP	6700 - ART I	
10th Grade	**Suggested Coursework**		***Career-Related Electives***
[Honors]	English II	Foreign Language II	6704 - Art II Ceramics 6701 - Art II Drawing 6702 - Art II Painting 6703 - Art II Sculpture 6726 - Technical Theater II 7311000C - Animation I
[Honors]	Geometry or Algebra II	CTE Elective	
[Honors]	Chemistry		
[AP] [DC]	World History		
11th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English III		6727 - Technical Theater III 6708 - Art III Ceramics 6705 - Art III Drawing 6706 - Art III Painting 6707 - Art III Sculpture European History AP
[Honors]	Algebra II or 4th Math		
	Physics		
[AP] [DC]	United States History		
12th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English IV		6728 - Technical Theater IV 6713 - Art IV Ceramics 6709 - Art IV Drawing 6710 - Art IV Painting 6711 - Art IV Sculpture 67120A00 - Art AP European History AP
	4th Math		
	4th Science		
[AP] [DC]	Government/Economics		

APPENDIX 3 - JOURNALISM PROGRAMS OF STUDY

Arts, Audio Visual Technology and Communications Career Cluster

ADVANCED JOURNALISM: YEARBOOK PROGRAM OF STUDY

Business and Industry Endorsement Career Goals:_____

9th Grade	Suggested Coursework		*Career-Related Electives*
	English I	Academic Advisory	6613 - Debate I Partner PE
[Honors]	Algebra I or Geometry	Foreign Language I	
[Honors]	Biology	P.E. Equivalent or Fine Art	
[Honors]	World Geography or Human Geo AP	6652-Journalism	
10th Grade	**Suggested Coursework**		***Career-Related Electives***
[Honors]	English II	Foreign Language II	6651-Contemporary Media (1) 64620A00 AP Psychology Partner PE
[Honors]	Geometry or Algebra II	P.E. Equivalent or Fine Art	
[Honors]	Chemistry	6671-Adv. Journalism Yearbook I	
[AP] [DC]	World History		
11th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English III	6672-Adv. Journalism Yearbook II	64620A00 AP Psychology European History AP Partner PE Kool Kat Crew (L)
[Honors]	Algebra II or 4th Math		
	Physics		
[AP] [DC]	United States History		
12th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English IV	6673-Adv. Journalism Yearbook III	64620A00 AP Psychology European History AP Partner PE Kool Kat Crew (L)
	4th Math		
	4th Science		
[AP] [DC]	Government/Economics		

Arts, Audio Visual Technology and Communications Career Cluster

ADVANCED JOURNALISM: NEWSPAPER PROGRAM OF STUDY

Business and Industry Endorsement Career Goals:_____

9th Grade	Suggested Coursework		*Career-Related Electives*
	English I	Academic Advisory	6613 - Debate I Partner PE
[Honors]	Algebra I or Geometry	Foreign Language I	
[Honors]	Biology	P.E. Equivalent or Fine Art	
[Honors]	World Geography or Human Geo AP	6652-Journalism	
10th Grade	**Suggested Coursework**		***Career-Related Electives***
[Honors]	English II	Foreign Language II	6651-Contemporary Media (1) 64620A00 AP Psychology Partner PE
[Honors]	Geometry or Algebra II	P.E. Equivalent or Fine Art	
[Honors]	Chemistry	6661-Adv. Journalism Newspaper I	
[AP] [DC]	World History		
11th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English III	6662-Adv. Journalism Newspaper II (1)	64620A00 AP Psychology European History AP Partner PE Kool Kat Crew (L)
[Honors]	Algebra II or 4th Math		
	Physics		
[AP] [DC]	United States History		
12th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English IV	6663-Adv.Journalism Newspaper III	64620A00 AP Psychology European History AP Partner PE Kool Kat Crew (L)
	4th Math		
	4th Science or Elective		
[AP] [DC]	Government/Economics		

APPENDIX 4 - MILITARY PROGRAMS OF STUDY & 4-YEAR PLANS

Law and Public Service Career Cluster

MILITARY PROGRAM OF STUDY - LAW ENFORCEMENT EMPHASIS

Public Service Endorsement Career Goals:_____

9th Grade	Suggested Coursework		*Career-Related Electives*
	Algebra I	Academic Advisory	Partner PE
[Honors]	English I	Foreign Language I	
[Honors]	Biology	6841-JROTC 1 (1)*	
[Honors]	World Geography	7120 - Principles of Law, Public Safety and Corrections (1)	
10th Grade	**Suggested Coursework**		***Career-Related Electives***
[Honors]	English II	Foreign Language II	7126 - Criminal Investigations 64620A00 AP Psychology Partner PE
[Honors]	Geometry or Algebra II	Fine Art	
[Honors]	Chemistry	7122 - Law Enforcement I (1)	
[AP] [DC]	World History	6842-JROTC 2 (1)*	
11th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English III	6843-JROTC 3 (1)*	6364- Earth Systems Science 64620A00 AP Psychology European History AP Partner PE Kool Kat Crew (L)
[Honors]	Algebra II or 4th Math	7123 - Law Enforcement II (1)	
	Physics	7126 - Criminal Investigations (1)	
[AP] [DC]	United States History	7127-Court Systems and Practices (1)	
12th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English IV	6844-JROTC 4 (1) *	6363-Astronomy 64620A00 AP Psychology European History AP Partner PE Kool Kat Crew (L)
	4th Math	7124 - Practicum in Law, Public Safety and Corrections (2)	
	4th Science		
[AP] [DC]	Government/Economics		

Law and Public Service Career Cluster

MILITARY PROGRAM OF STUDY - ENGINEERING FOUNDATIONS EMPHASIS

Public Service Endorsement Career Goals:_____

9th Grade	Suggested Coursework		*Career-Related Electives*
	Algebra I	Academic Advisory	
[Honors]	English I	Foreign Language I	
[Honors]	Biology	6841-JROTC 1 (1)*	
[Honors]	World Geography	7069-Principles of Applied Engineering (1)	
10th Grade	**Suggested Coursework**		***Career-Related Electives***
[Honors]	English II	Foreign Language II	
[Honors]	Geometry or Algebra II	Fine Art	
[Honors]	Chemistry	7073-Robotics I (1)	
[AP] [DC]	World History	6842-JROTC 2 (1)*	
11th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English III	6843-JROTC 3 (1)*	63110D0C - Biology Dual Credit (Scientific Research & Design) 62450A00 - Calculus AP 63520A00 - Physics AP I European History AP
[Honors]	Algebra II or 4th Math	7071-Engineering Design and Presentation I (1)	
	Physics	7075-Robotics II (1)	
[AP] [DC]	United States History	7071-Engineering Design and Presentation I (1)	
12th Grade	**Suggested Coursework**		***Career-Related Electives***
[AP] [DC]	English IV	6844-JROTC 4 (1) *	63110D0C - Biology Dual Credit (Scientific Research & Design) 63530A00 - Physics AP2 European History AP
	Algebra 3	7070-Engineering Design and Presentation II (2)	
	4th Science		
[AP] [DC]	Government/Economics		