Amarillo ISD
High School Course Guide

2023-2024 Edition

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Welcome to Amarillo ISD

The opportunities for students in the Amarillo Independent School District to be successful are endless. The path to achieving academic success starts with all stakeholders working together to provide the support students need to discover their full potential, take on challenges and achieve their dreams. AISD encourages students to make choices that prepare them academically and socially to become well-rounded individuals ready for this rapidly changing world.

The Course Selection Guide makes a strong connection between high school preparation and student's career choices. The information provides an outline of courses and programs of study. The academic decisions students make now will significantly impact his or her future options in college or the work place. AISD encourages students to take the most challenging courses while in high school in order to experience success later in life.

This Course Selection Guide serves as a student's personal, four-year-high school planning guide. It is AISD's hope that students use it as a roadmap to their future and a way of recording their accomplishments along the way. Please know that AISD counselors, administrators and teachers are ready to provide information and guidance to you during the selection process. There are no limits or boundaries to what students can accomplish. Let's plan together wisely to help students achieve success.

Best wishes to each student as they begin their high school years!

General Information

Academic Program Categories

Academic Program Categories include:

- Grade Level
- Advanced (formerly Pre-AP)
- Advanced Placement (AP)
- International Baccalaureate (IB)
- Dual Credit/Dual Enrollment
- Articulated Credit
- English for Speakers of Other Languages (ESOL)
- Gifted & Talented
- Sheltered Instruction
- Special Education
- Virtual Learning (Amarillo Virtual Academy)

Grade Level

These courses meet the requirements as set forth by the Texas Education Agency as academic Grade Level courses. Each course has a set of Texas Essential Knowledge and Skills (TEKS) that students must learn in the course. Enrollment in programs other than Grade Level requires special consideration.

Advanced Courses (formerly Pre-AP)

The purpose of the Advanced Initiative is to engage ninth and tenth grade students in active, high-level learning, thereby ensuring that the students develop the skills, habits of mind, and concepts needed to succeed in college level courses. Rigorous curriculum and instruction challenge the students to expand their knowledge and skills in preparation for the college-level environment of AP courses. Advanced Academic courses require more homework and a faster-paced learning environment, but provide greater opportunity to explore a subject in greater depth, with greater rigor. Amarillo ISD is committed to expanded access in challenging courses as it seeks to prepare every student for post-secondary success. Weighted grades are awarded for Advanced courses.

AP—Advanced Placement

AP courses are college-level courses based on College Board curriculum. They are fast-paced and require more academic dedication and homework than Grade Level courses. They are rigorous and challenging, and build high-level critical thinking skills in specific content areas, culminating in a College Board AP exam. Weighted grades are awarded for AP courses.

IB—International Baccalaureate

The International Baccalaureate® (IB) is a non-profit educational foundation offering four highly-respected programs of international education that develop the intellectual, personal, emotional, and social skills needed to live, learn, and work in a rapidly-globalizing world. Schools must be authorized by the IB organization to offer any of the programs. IB courses are offered exclusively in Amarillo ISD at Amarillo High School. Weighted grades are awarded for IB courses.

DC/DE—Dual Credit/Dual Enrollment (OnRamps)

A student may enroll in academic and/or technical courses for college credit while simultaneously earning high school credit in 11th and 12th grade. These are rigorous college-level courses which require more homework than Grade Level classes. The student must meet qualifications (see page 10 for additional details). Grades for these courses appear on both the student's high school transcript and college transcript. Weighted grades are awarded for Dual Enrollment (OnRamps) courses only.

Articulated Credit
Articulated Credit is credit earned in a high school CTE course that aligns with an equivalent college course. Each year, Amarillo ISD and Amarillo College faculty review and revise Articulated course offerings.

English for Speakers of Other Languages (ESOL)
This program is designed to meet the needs of English Learners (ELs). ELs receive intensive instruction in English from certified English as Second Language (ESL) teachers trained in recognizing and addressing language differences. This program is an integral part of the total school program and is based on the Texas Essential Knowledge and Skills (TEKS) and English Language Proficiency Standards (ELPS) as required by the state. Placement in these classes is determined by the Language Proficiency Assessment Committee (LPAC).

Sheltered Instruction
Sheltered instruction occurs in general education content-specific classes offered to English Learners (ELs) for state credit in high school. A sheltered content class incorporates second language acquisition strategies and support systems to communicate meaning in the content area. These sheltered classes are taught by teachers certified in a content area and trained in sheltered instruction. The sheltered classes cover all mandated TEKS; incorporate English Language Proficiency Standards (ELPS); and focus on modifying the instructional pacing and methods and accommodating materials for instruction.

Gifted and Talented (GT)
Students identified as “gifted and talented” through the district selection process generally take Advanced & AP courses with teachers who have been trained to differentiate instruction to meet the needs of this population. Differentiation includes providing for GT students’ preferences for abstract learning, in-depth research and complex content. The differentiation and GT Framework can be found on the Amarillo ISD GT webpage. Students may be referred for the GT program by contacting the campus GT Contact. The secondary GT identification process takes place in the spring for services to begin the following school year. Most secondary testing occurs in the fall. Students may be identified to receive GT services in Language Arts/Social Studies, Mathematics/Science, or in all four core subject areas.

Special Education
For eligible students, course placement is determined by the Admission, Review and Dismissal (ARD) Committee, given consideration of present levels of performance and individual program goals.

Virtual Learning
Virtual learning options exist for both original credit and credit recovery classes. These classes can be taken during or after the regular school day, and during summer school.

Additional information about AISD instructional programs can be found at:
Secondary Grading Expectations Grading Expectations - Amarillo Independent School District
Secondary Student Handbook Handbooks

FOUNDATION HIGH SCHOOL PROGRAM - 22 CREDITS

- 4 ENGLISH
- 3 SCIENCE
- 3 SOCIAL STUDIES
- 3 MATH
- 4 ELECTIVES
- 2 LOTE
- 1 FINE ART
- 1 PE
- ½ SPEECH
- ½ PERSONAL FINANCIAL LITERACY

FOUNDATION HIGH SCHOOL PROGRAM WITH ENDORSEMENTS - MINIMUM OF 26 CREDITS

All endorsements include 1 advanced math, 1 advanced science and 2 electives

STEM

- CYBERSECURITY
- ENGINEERING
- INFORMATION TECHNOLOGY SUPPORT & SERVICES
- ADVANCED MATHEMATICS
- ADVANCED SCIENCE

BUSINESS & INDUSTRY

- ACCOUNTING & FINANCIAL
- ADVANCED MANUFACTURING & MACHINING (ROBOTICS)
- ANIMAL SCIENCE
- APPLIED AG ENGINEERING
- ARCHITECTURAL DESIGN
- AUTOMOTIVE TECHNOLOGY (AUTO & COLLISION)
- BUSINESS MANAGEMENT
- CARPENTRY
- CONSTRUCTION MANAGEMENT
- CULINARY ARTS
- DIGITAL COMMUNICATIONS
- ELECTRICAL TECHNOLOGY
- GRAPHIC DESIGN & MULTIMEDIA
- HVAC TECHNOLOGY
- JOURNALISM
- MANUFACTURING TECHNOLOGY (MACHINING)
- MARKETING & SALES
- PLUMBING TECHNOLOGY
- WELDING

PUBLIC SERVICES

- COSMETOLOGY
- HEALTHCARE THERAPEUTIC (CMA, PCT, EKG, EMT, DENTAL & PHARMACY)
- JROTC
- LAW ENFORCEMENT
- LEGAL STUDIES
- TEACHING & TRAINING

ARTS & HUMANITIES

- FINE ARTS
- LOTE
- SOCIAL STUDIES

MULTI-DISCIPLINARY

- GENERAL STUDIES

FOUNDATION HIGH SCHOOL PROGRAM WITH DISTINGUISHED LEVEL OF ACHIEVEMENT

1 ADVANCED MATH (INCLUDING ALGEBRA II), 1 ADVANCED SCIENCE & 2 ELECTIVES

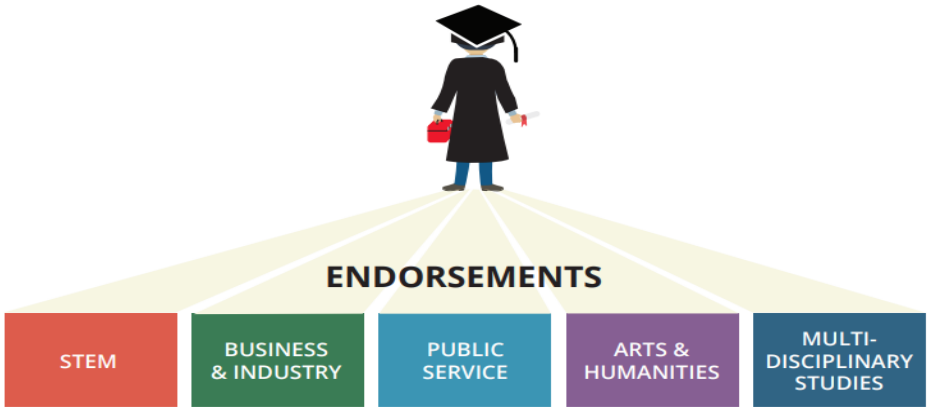
STATE ASSESSMENTS REQUIRED TO GRADUATE (EOC)

ENGLISH I ENGLISH II ALGEBRA I BIOLOGY US HISTORY

PERFORMANCE ACKNOWLEDGEMENTS

- 12 HOURS DUAL CREDIT (3.0 OR HIGHER)
- ASSOCIATE DEGREE WHILE IN HIGH SCHOOL
- BILINGUALISM/BILITERACY
- COLLEGE BOARD AP EXAM SCORE OF 3 OR HIGHER
- IB EXAM SCORE OF 4 OR HIGHER
- OUTSTANDING PERFORMANCE ON PSAT
- SAT OR ACT
- NATIONALLY OR INTERNATIONALLY RECOGNIZED BUSINESS OR INDUSTRY CERTIFICATE OR LICENSE

Endorsements



Students can earn one or more endorsements as part of their graduation requirements. A student entering 9th grade must indicate an endorsement plan he or she plans to follow. Endorsements consist of a related series of courses grouped together by interest or skill set. Every Career and Technical Education (CTE) Program of Study leads to an endorsement. In the State of Texas there are five Endorsement Areas for high school students.

STEM Endorsement Course Requirements

Science, Technology, Engineering and Math – requires Algebra II, Chemistry and Physics or Principles of Technology; students must complete all other graduation requirements plus one of the following:

- A coherent sequence of CTE STEM courses for four or more credits, that consists of at least two courses in the same career cluster and at least one advanced CTE course *or*
- CTE courses required to complete a TEA-designated program of study related to STEM *or*
- Three credits in math by completing Algebra II and two additional math credits for which Algebra II is a prerequisite: *or*
- Four credits in science by completing Chemistry, Physics and two additional science courses; *or*
- Algebra II, Chemistry, Physics, and a coherent sequence of three additional credits from no more than two disciplines represented by the options listed above

Business and Industry Endorsement Course Requirements

Students must complete all graduation requirements plus one of the following:

- A coherent sequence of CTE courses for four or more credits (2 credits from the same career cluster and 1 advanced CTE course). The final course must be selected from one of the following Career Clusters:
  Agriculture, Food, and Natural Resources; Architecture and Construction; Arts, Audio/Video Technology, and Communications; Business, Marketing and Finance; Hospitality and Tourism; Information Technology; Manufacturing; Transportation, Distribution, and Logistics; Career Prep if the course addresses a career from a field listed above; *or*
- CTE courses required to complete a TEA-designated program of study related to Business and Industry *or*
- Four English elective credits to include three levels in public speaking, debate, advanced broadcast journalism, advanced newspaper journalism, or advanced yearbook journalism; or
- A coherent sequence of four credits from the above options.

Public Services Endorsement Course Requirements

Students must complete all graduation requirements plus one of the following:

- A coherent sequence of CTE courses for four or more credits (2 credits from the same career cluster
- and 1 advanced CTE course). The final course must be selected from one of the following Career Clusters:
  Education and Training; Government and Public Administration; Health Science; Human Services; or Law, Public Safety, Corrections, and Security); Career Prep if the course addresses a career from a field listed above; *or*
- CTE courses required to complete a TEA-designated program of study related to Public Services *or*
- Four courses in JROTC

Arts and Humanities Endorsement Course Requirements

A student earning an arts and humanities endorsement must complete all other graduation requirements and one of the following:

- Five social studies courses; *or*
- Four levels of the same language other than English; *or*
- Two levels of the same language other than English and two levels of a different language other than English; *or*
- Four levels of American Sign Language; *or*
- A coherent sequence of four credits, selecting courses from one or two categories or disciplines in fine arts or innovative courses approved by the commissioner: *or*
- Four English elective credits from an approved list.

Multidisciplinary Endorsement Course Requirements

A student earning a multidisciplinary studies endorsement must complete all other graduation requirements and one of the following:

- Four advanced courses that prepare a student to successfully enter the workforce or postsecondary education without remediation from within one endorsement area or among multiple endorsement areas that are not in a coherent sequence: *or*
- Four credits in each of the four foundation subject areas to include chemistry and/or physics and English IV or a comparable AP or IB English course; *or*
- Four credits in Advanced Placement, International Baccalaureate, or dual credit selected from English, math, science, social studies, economics, languages other than English, or fine arts.

Distinguished Level of Achievement

Choices Determine Options

Most of the high-skill, high-wage, and in-demand jobs available now and in the future require education and training beyond a high school diploma. Whether you intend to pursue an industry workforce credential from a community or technical college or a traditional four-year degree from a university, the choices you make in high school will determine your future options. To best prepare yourself now for the transition to postsecondary education and career entrance, choosing and taking the right classes is essential.

Distinguished Level of Achievement

The distinguished level of achievement requires:

- A total of four credits in math, including Algebra II;
- A total of four credits in science; and
- Successful completion of an endorsement in your area of interest.

A student must earn the distinguished level of achievement to be admitted to a Texas public university under the Top 10 percent automatic admission law.

Why it Matters—Benefits

The Distinguished Level of Achievement opens a world of educational and employment opportunities for you beyond high school. The Distinguished Level of Achievement:

- Allows you to compete for Top 10% automatic admissions eligibility at almost any Texas public university;
- Makes you a more competitive applicant at selective colleges and universities;
- Prepares you for college-level coursework at community/technical colleges and universities;
- Lays a strong foundation for successful completion of an industry workforce credential and/or college degree.
- Provides more financial aid options

Performance Acknowledgements

Performance Acknowledgments note outstanding achievement in specific areas. These distinctions will be included on your high school transcript and better position you for successful entry into college and/or the workforce. Students may earn performance acknowledgments on their Academic Achievement Record or transcript for the following:

1) Outstanding performance in Dual Credit coursework by successfully completing:

- At least 12 hours of college academic courses, including those taken for dual credit as part of the Texas core curriculum, and advanced technical credit courses, including locally articulated courses, with a grade of the equivalent of 3.0 or higher on a scale of 4.0; or
- An Associate degree while in high school.

2) Outstanding performance in Bilingualism and Biliteracy:

A student may earn a performance acknowledgment by demonstrating proficiency in two or more languages by:

- Completing all English Language Arts requirements and maintaining a minimum grade point average (GPA) of the equivalent of 80 on a scale of 100; and satisfying one of the following:
  a. Completion of a minimum of three credits in the same language in a Language Other Than English with a minimum GPA of the equivalent of 80 on a scale of 100; *or*
  b. Demonstrated proficiency in the TEKS for level IV or higher in a Language Other Than English with a minimum GPA of the equivalent of 80 on a scale of 100; *or*
  c. Completion of at least three credits in foundation subject area courses in a Language Other Than English with a minimum GPA of the equivalent of 80 on a scale of 100; *or*
  d. Demonstrated proficiency in one or more Languages Other Than English through one of the following methods:
     i. Score 3 or higher on an AP exam for a Language Other Than English; *or*
     ii. Score 4 or higher on an International Baccalaureate exam for a higher-level Language Other Than English course; *or*
     iii. Performance on a national assessment of language proficiency in a Language Other Than English of at least Intermediate High or its equivalent.

In addition to meeting the requirements of the above subsection, to earn a performance acknowledgment in bilingualism and biliteracy, an English language learner must also have:

- Participated in and met the exit criteria for a bilingual or ESL program; and
- Scored at the Advanced level on the Texas English Language Proficiency Assessment System (TELPAS).

3) Outstanding performance on a college Advanced Placement (AP) test or International Baccalaureate (IB) examination by earning:

- A score of 3 or above on a College Board AP exam; *or*
- A score of 4 or above on an IB exam.

4) Outstanding performance on the PSAT, the ACT PLAN/Aspire, the SAT, or the ACT by:

- Earning a score on the Preliminary SAT/ National Merit Scholarship Qualifying Test (PSAT/NMSQT) that qualifies the student for recognition as a commended scholar or higher by the College Board and National Merit Scholarship Corporation, as part of the National Hispanic Recognition Program (NHRP) of the College Board or as part of the National Achievement Scholarship Program of the National Merit Scholarship Corporation; *or*
- Earning a composite score of 442 on the ACT Aspire exam;
- Earning a composite score of 29 on the ACT PreACT exam;
- Earning a total score of at least 1350 on the SAT; *or*
- A composite score on the ACT exam (without writing) of 29.

5) Earning a nationally or internationally recognized business or industry certification or license (IBC) by:

- Performance on an examination or series of examinations sufficient to obtain a nationally or internationally recognized business or industry certification; *or*
- Performance on an examination sufficient to obtain a government required credential to practice a profession.

Nationally or internationally recognized business or industry certification shall be defined as an industry validated credential that complies with knowledge and skills standards promoted by a nationally or internationally recognized business, industry, professional, or government entity representing a particular profession or occupation that is issued by or endorsed by:

- A national or international business, industry, or professional organization;
- A state agency or other government entity; or
- A state-based industry association.

Certifications or licensures for performance acknowledgments shall:

- Be age appropriate for high school students;
- Represent a student's substantial course of study and/or end-of- program knowledge and skills;
- Include an industry recognized examination or series of examinations, an industry validated skill test, or demonstrated proficiency through documented, supervised field experience; and
- Represent substantial knowledge and multiple skills needed for successful entry into a high-skill occupation.

Programs That Can Help Students Earn College Credit in High School

AP / Dual Credit / Dual Enrollment / IB

Knowing the different between Advanced Placement, International Baccalaureate, Dual Credit, and Dual enrollment courses will assist you in planning for both high school and college courses.

	Advanced Placement (AP)	Dual Credit (DC)	UT On-Ramps Dual Enrollment (DE)	International Baccalaureate (IB)
Description	The AP program allows students to take college level courses and to earn college credit or placement while still in high school.	Dual credit allows students to earn high school and college credit simultaneously by successfully completing Amarillo College Courses.	Dual Enrollment allows students to earn high school while potentially earning college credit while still in high school.	IB courses allow students to learn and practice globally minded thinking skills while participating in college level courses.
College Credit	College credit is awarded by individual universities based on the score of the AP Exam taken at the end of the course. Number of credit hours varies based on the course and the exam score.	High school and college credit is awarded when the student passes the course. Students can earn 3college credit hours/course upon successful completion of course.	Students receive high school credit when they successfully complete the course. Students may elect to accept the 3 college credit hours if they qualify for and pass the college portion of the course.	College credit varies based on the scores received on each exam. Number of credit hours varies based on the course and the exam score. In addition, students who earn the full IB Diploma are awarded 24 college credits at Texas schools.
Teachers/ Instructors	High school teachers trained by the College Board in their content areas.	Taught by college instructors and/or high school teachers who serve as adjunct Amarillo College professors.	A high school instructor teaches the high school course, and a college instructor of record leads the distance college course.	High school teachers trained by the IB teach IB courses in their content areas.
College/ University Credit Acceptance	Accepted throughout the nation but check with individual college/ university for their AP exam score acceptance policy. Public Texas universities are required to award credit for any score of 3 or higher.	Guaranteed acceptance at Texas public institutions. Check with the individual college/university for academic requirements.	Guaranteed acceptance at any Texas public institution, and many private universities. Check with your individual college/university for academic requirements.	Accepted throughout the nation but check with individual college/ university for their IB exam score acceptance policy. Public Texas universities are required to award credit.
Location	AP courses are taught in the high school.	Dual credit courses are taught at the high school, or Amarillo College.	UT OnRamps Dual Enrollment courses are taught on the high school campus.	IB courses are taught in the high school.
Eligibility	Any student with appropriate pre-requisites may take AP courses.	Student must meet College Readiness Standards via the, TSIA2, PSAT, SAT, ACT or via a STAAR EOC Waiver	Open to students who show high achievement, self-discipline, and who wish to experience college-level coursework	Any student with appropriate prerequisites may take IB courses.
Cost	The course itself is free, but students pay for the AP exam. There are exam fee reductions for students with financial need.	Dual credit tuition fees are set by Amarillo College and are currently $150 per course per semester.	OnRamps Tuition fees are $149 per course or $90 for students who qualify for free/reduced lunch	The course itself is free, but student pay for the IB exam fees. There are exam fee reductions for students with financial need.
Textbooks	Textbooks are provided by Amarillo ISD	Students are responsible for purchasing textbooks. This is an additional fee in addition to the cost of the course.	All-OnRamps materials are accessed through Canvas.	Textbooks and resources are provided by Amarillo ISD.
Impact on High School GPA	AP Courses are weighted.	Dual Credit courses are not weighted, unless they are part of an AP course.	On-Ramps dual enrollment courses are weighted.	IB Courses are weighted.
Testing	Students take the AP exam at the end of their course to try to earn college credit.	College credit is earned upon successful completion of the course.	Students may accept college credit upon successful completion of the course and receive a transcript from UT-Austin.	Students create IB assessments throughout their two year program. They sit for additional exams in May of their senior year. Passing scores on the suite of assessments allows students to earn college credit.

Credit by Exam and Credit Recovery

Credit by Examination (CBE)

CBE is offered for two different groups: students with prior instruction in the class and those without. The credit awarded through examination serves as the credit for the exam to meet graduation requirements.

- **No Prior Instruction**—The student must score 80% or above on an approved criterion-referenced examination. Amarillo ISD administers these exams. Please check with your campus counselor for dates and registration.
- **Prior Instruction**—Includes
    - Courses studied in an independent homeschool program with documented curriculum and grades.
    - Courses taken at an accredited private school for which grades are not available.
    - Courses taken outside Texas for which the TEKS are not fully aligned.

The student must score 70% or higher on a scale of 100. All exams are developed by Texas Tech University. There is no fee for this process.

Credit Recovery

Students who have failed classes needed for graduation have several options to recover the lost credits.

- **Retake Classes during the Regular School Day**
    - Students have the option of retaking failed courses during the regular school day if sufficient room exists in their schedule. Students should work with the counselor to determine if this option is feasible.
- **Edgenuity**
    - Students can recover credit through self-paced Edgenuity courses. These courses, allow students to test out of curriculum and only focus on areas they still need to master. In many cases, computer lab time for these courses can be scheduled into the student's regular school day.
- **Amarillo ISD offers online courses for original credit and credit recovery.** These courses are available: during the school day in a facilitated lab on campus, as an extra course beyond the regular class schedule (tuition based), and during summer school (tuition based).
- **Summer School**
    - Students may regain credits lost through summer programs. A maximum of 3 courses may be taken during summer school. No courses may be taken for advancement/acceleration.

Testing Information

STAAR End of Course (EOC) Assessments

EOC assessments are required for graduation in the following courses: **English I, English II, Algebra I, Biology, and U.S. History.** These assessments are taken in the spring semester of the year the course is first taken. If unsuccessful, students have additional opportunities to pass.

Armed Services Vocational Aptitude Battery Test (ASVAB)

Students in grades 10-12 will be offered an opportunity to take the Armed Services Vocational Aptitude Battery test at their campus and consult with a military recruiter if interested. Please contact your campus CCMR Coordinator for schedule and information about this opportunity.

College Pathway/Entrance/Placement Exams

School Day Administrations

An initiative of Amarillo ISD is to increase the number of students completing a technical certificate, military training, two-year degree, or four-year degree. This commitment to post-secondary readiness includes numerous opportunities for students to participate in college pathway assessments on campus during the school year, beginning in 8th grade.

Preliminary SAT/National Merit Scholarship Qualifying Test (PSAT/NMSQT)

The PSAT/NMSQT (known as the PSAT) is scheduled in October. It is administered at no charge to sophomores, and juniors during the school day. In Amarillo ISD, the 11th grade administration of the test is also the qualifying exam for the National Merit Scholarship Program, the National Hispanic Recognition Program, and the National Scholarship Service for African-American Students. It covers critical reading, writing, and math skills, and is a valuable predictor for success in higher-level courses, for future SAT scores, and for success in college. Many scholarship and college applications ask for junior year PSAT scores.

SAT Reasoning Test (College Entrance Exam)

The SAT Reasoning Test is one of two college entrance exams required by most colleges and universities. The SAT tests verbal and mathematics reasoning skills, and writing ability. Scores range from 200 to 800 on each section. A score of 500 on each section is generally in the top 50%. Amarillo ISD provides the SAT to juniors in March. The SAT is given on Saturdays about 7 times a year for any student who wishes to re-test. Students who qualify for free/reduced lunch will qualify for testing waivers. Registration with the College Board is required about six weeks in advance.
http://www.collegeboard.com/student/testing/sat/reg.html

Advanced Placement (AP) Exams

The College Board AP exams are given once a year, in May, during the school day. Each three-hour exam covers college level content in a specific course. The tests consist of both multiple choice and essay questions. Foreign Language exams include a speaking and listening section. Scores range from 1-5, with most colleges awarding credit for scores of 3 or better. Registration takes place in the fall (late September through early November) through the College Board AP Classroom student

platform. Questions about registration can be directed to the campus Advanced Placement Coordinator.

Texas Success Initiative Assessment (TSI) Placement Testing
The State of Texas requires all students to demonstrate college level readiness in reading, math, and writing before taking any courses that count towards a college degree. Students may be exempt from TSI with specified scores on the SAT, ACT, or PSAT. Students are encouraged to check with the state college/university for specific placement testing requirements. Meeting TSI standards is also required for any dual credit classes. Amarillo ISD provides the TSI at no charge for students who are needing to test.

International Baccalaureate (IB) Exams
IB Exams are given once a year in May of the student's senior year, during the school day. Each IB Exam is course-specific and college level. The exams consist of short answer, essay, document-based questions, and stimulus response (multiple choice occurs on Paper 1 of the Science exams). Music, Theater, and Visual Arts exams require students to choose work that demonstrates growth proficiency in their field of art. Scores range from 1-7 with many public colleges awarding credit for scores of 4 or higher. Registration with the IB Coordinator takes place in October/early November of the senior year.

Graduation: Early and On-Time Graduation

Early Graduation
Students who wish to graduate after completing three years of high school must submit a written request to the Director of Counseling/College & Career Readiness as early as possible, preferably no later than the end of the first semester of the 11th grade year. Approved students will have the opportunity to earn credit for English IV through the successful completion of Credit by Examination (CBE), TxVSN, or Amarillo College summer dual enrollment. These courses are unweighted.

"On Time" Graduation
Once a student enters high school, graduation generally occurs after a four-year course of study. Students who fail a course and do not recover credit for the course during the following summer session or through Credit by Examination will find it difficult to graduate within this timeframe. The principal may make an exception, allowing a student to enroll in North Heights Alternative School for acceleration, so that the student can graduate at the end of the fourth year in high school.

Admission to Texas Public Universities

Automatic Admission to Texas Public Universities
Under the Automatic Admission policy (Texas Education Code §51.803), Texas students may be eligible for automatic admission to a state college or university as an undergraduate student if they meet certain criteria. To qualify for automatic admission, a student must:

1) earn a grade point average in the top 10 percent* of his/her high school graduating class,

2) graduate from a Texas public or private high school (or, if the student is a Texas resident, from a high school operated by the U.S. Department of Defense),
3) successfully complete the requirements for the Foundation High School Program (FHSP) with an endorsement (or the equivalent if enrolled in private school) or satisfy ACT's College Readiness Benchmarks on the ACT college entrance exam or earn a score of at least 1,000 out of 1,600 on the SAT college entrance exam, and
4) apply for admission to a state college or university within the first two school years after graduation from high school.

Students who meet the criteria for automatic admission must submit an application before the deadline set by the college or university to which they are applying. Students must also provide a high school transcript or diploma that indicates whether they have satisfied or are on schedule to satisfy the requirements of the FHSP.

*This automatic admission program has been modified by the 81st Legislature for admission to The University of Texas at Austin (UT). Under the new law, the University is to admit automatically enough students to fill 75% of available spaces set aside for Texas residents in an entering freshman class. Using data from recent years, the University has determined that automatically admitting students in the top 6% of their high school graduating class will fill 75% of available spaces. As a result, the University will automatically admit all eligible 2023 summer/fall freshman applicants who rank within the top 6% of their high school graduating classes, with remaining spaces to be filled through holistic review. Students and parents should contact the Academic Advisor for further information about the application process and deadlines.

NCAA Core Course Requirements

NCAA schools require college-bound student-athletes to build a foundation of high school courses to prepare them for the academic expectations in college. Not all high school classes count as NCAA core courses. Only classes in English, math (Algebra I or higher), natural or physical science, social science, foreign language, comparative religion or philosophy may be approved as NCAA core courses. Remedial classes and classes completed through credit-by-exam are not considered NCAA core courses. For more information please see your academic advisor or visit https://www.ncaa.org/sports/2021/2/8/student-athletes-future.aspx.

The **Thrive Scholarship Program** pays tuition, fees and books* for 60 credits hours at Amarillo College or 3 years of study whichever comes first.

*Eligibility is NOT based on family income. Whether your family's annual income is $1 or $1 million, all students that the criteria below are eligible to receive the scholarship.

Thrive Criteria

- Students must be enrolled full time (on or before the last day of school their 9th grade year) and maintain enrollment in an AISD school and graduate from an AISD high school (Amarillo HS, Caprock HS, Palo Duro HS, Tascosa HS, or North Heights HS)
- Students may transfer to Amarillo ISD by the end of their 9th grade year, maintain enrollment, and graduate from an AISD high school.
- Students can move from outside the 26 county area, transfer into and attend full time and graduate from an Amarillo ISD high school.

If Students meet one of the above criteria, student must then meet these requirements:

- Maintain continuous enrollment through graduation from an AISD high school one eligibility is established
- Have an 80 or higher GPA or meet TSI college readiness standards
- Have never been expelled or placed in long term DAEP
- Meet minimum Texas attendance requirements
- Complete the 3 steps listed below
    - Apply to Amarillo College
    - Complete the FAFSA—Texas Graduation Requirement
    - Complete the AC Foundation Scholarship Application

You will receive a confirmation from AC upon high school graduation from Amarillo ISD once all steps are completed. If you have questions contact Tracey Morman @ tracey.morman@amaisd.org or your campus counselor.

FAQ

1. **Is there an application for the scholarship?** No, enrolling in Amarillo ISD automatically makes a student eligible for the scholarship.
2. **If I move from one campus to another do I lose the scholarship?** No as long as you maintain enrollment in AISD until graduation you stay eligible.
3. **What attendance counts against me?** Excused, unexcused absences all count towards the attendance requirement. However, this is cumulative over the course of your entire enrollment. Example, a typical year has 177 days therefore, by the end of 4 years would have 708 eligible days and would allow for 70 days of absences. School sponsored activities do not count.

SUPERINTENDENT'S SCH★LARS

Amarillo Independent School District

To qualify for Superintendent's Scholars in a given semester:

- Freshmen, sophomores, and juniors must be taking at least five of the courses included in the Superintendent's Scholars program
- Seniors must be taking at least four of the courses included in the program
- All students must make at least a 95 average in regular courses, and at least a 90 average in AP and Pre-AP courses

All courses offered at the four AISD high schools (including AmTech Career Academy) will count towards Superintendent's Scholars except:

- English as a Second Language courses not subject to EOC or TAKS testing
- Special Education classes
- Physical Education classes
- Athletics
- Local credit courses

For more information, contact your high school counselor.

Amarillo ISD Course Registration

Counselors will visit every year with students during the pre-registration process to discuss their course selections for the next year school. In collaboration with your school counselor, it is the students' responsibilities to select the appropriate career and graduation choices when planning their course selections.

Amarillo ISD Schedule Change Procedures

Amarillo ISD offers a wide variety of programs and courses for students. Master Schedules change from year to year and are developed in the spring prior to the upcoming year based on courses requested by students. Selections made during course selection indicate how many teachers and sections will be needed for a course. This process allows administrators to plan and to hire for optimum academic strength. When students are permitted to randomly change schedules, teachers and classrooms are not effectively utilized. As a result, all students are affected. Very seldom does a single course change affect only one course. Careful selections benefit everyone.

Students may submit a request to drop a course or change their scheduled course only during the first ten (10) school days of the semester, both Fall and Spring. Student initiated requests for course changes must be submitted in writing. Approval of schedule changes is contingent upon course availability and alignment with students' personal graduation plan. An administrator, school counselor, or teacher shall inform students of deadlines and requirements for dropping courses or changing schedules, as well as the ramifications of such a decision. Drops or changes occurring during the semester's ten (10) day grace period will not be shown on the student's record.

Students may drop or change their scheduled course if:

1. There is a data entry error;
2. The student does not meet prerequisites for the course;
3. The student was not placed in the appropriate level;
4. Missing graduation requirements;
5. Change in program (band, orchestra, etc.)
6. Previously failed course with the same teacher;
7. IEP or 504 amended;
8. Extenuating circumstances which require administrator approval.
    a. This approval must be in writing, submitted to the school Counselor and placed in the student guidance notes. An example of an extenuating circumstance would be a medical issue that would necessitate a change to a student's schedule in the interest of their personal health and wellbeing. Documentation from the student's physician would be required prior to adjusting a student's schedule.
    b. A change of mind, failure to obtain outside tutorial support, requests for a different teacher, dropping or changing a course to improve GPA, unsatisfactory academic performance, requests to be scheduled with friends, and stress/anxiety not documented by a physician are not compelling circumstances.

Requests to level down will be considered after the first six (6) weeks of school and only if space is available in the new class. Prior to requesting a change in level, the student and parent must have met with the teacher

and put in place a plan for success. If the teacher and student feel the plan has been followed, and the student has completed all assignments, a request for a conference to discuss removal may be made. Success in an AP or Advanced course is defined as having a grade of 75 or above. Students may not request a level change with the intent to improve their GPA. If the student levels down from a weighted class to a non-weighted class, the exact grade from the weighted class shall transfer to the on-level course with no grade adjustments. In the case of failing grades, teachers may assign alternative assignments in order to fulfill a grade change of up to a 70.

Course Descriptions

English Language Arts

ENGLISH I - 1240 **AHS, CHS, PDHS, THS**
GRADE: 9 **CREDIT: 1**
Prerequisite: None
Using both literary and informational texts in all genres as a focus, students develop language skills and practice writing in all forms. Language usage, spelling, and vocabulary development are studied. Students participate in the research process and synthesize their research into a written or oral presentation. The use of technology as well as the interpretation of multicultural literature, universal themes, and literary terminology is embedded throughout. Oral language and critical listening skills enhance student presentation skills necessary for the 21st Century learner. ***(STAAR-EOC)***

ENGLISH I–Advanced (Previously Pre-AP)– 1241 **AHS, CHS, PDHS, THS**
GRADE: 9 **CREDIT: 1**
PR: 8th Grade English Pre-AP, Specific entrance criteria (see counselor for more information)
The universal search for self and identity incorporates basic skills with emphasis on critical and creative thinking skills. Curriculum stresses research, oral language, text-centered writing, vocabulary study, and technology. Literature involves various genres with emphasis on analysis for deeper meaning and analysis of diction and universal themes. ***(STAAR-EOC)***

ENGLISH I-IH–PRE-IB – 1243 **AHS**
GRADE: 9 **CREDIT: 1**
Pre-IB English I prepares students for success in both Pre- IB English II and the International Baccalaureate Program. The course is designed to cultivate an appreciation for cultural differences, understand multiple perspectives, work collaboratively, use critical thinking skills, and most importantly communicate effectively. Course objectives include language for expression, creativity, retention and reflection. Students will explore their own culture and other cultures using multiple perspectives, hone oral and written communication skills, develop critical and comparative thinking skills, and synthesize multiple sources to take or defend a position. ***(STAAR-EOC)***

ENGLISH I–SOL – 1245 **PDHS**
GRADE: 9 **CREDIT: 1**
The ESOL curriculum aligns English language instruction with content standards. Students develop their language and literacy skills in the context of the content curriculum. ESOL teachers analyze the academic language demands involved in grade-level teaching and learning to identify the English language needed for functional use in discipline specific topics. ***(STAAR-EOC)***

ENGLISH LANGUAGE DEVELOPMENT AND ACQUISITION (ELDA A) – 1248 **PDHS, THS**
GRADE: 9 **CREDIT: 1**
PR: MUST BE TAKEN CONCURRENTLY WITH ENGLISH I
English Language Development and Acquisition (ELDA) is designed to provide instructional opportunities for secondary recent immigrant students with little or no English proficiency. These students have scored at the negligible/very limited academic language level of the state-approved English oral language proficiency tests. This course enables students to become increasingly more proficient in English in all four language domains. It addresses cognitive, linguistic, and affective needs in compliance with federal requirements and the provisions of Chapter 89, Subchapter BB, of this title (relating to Commissioner's Rules Concerning State Plan for Educating English Language Learners) under the Texas Education Code, §§29.051-29.064. (2) The English Language Development and Acquisition (ELDA) course will validate a student's native language and culture as a valuable resource and as a foundation to attain the English language. It will develop social language, survival

vocabulary, and the basic building blocks of literacy for newly arrived and preliterate students. (3) Through comprehensible input, students have access to curriculum that accelerates second language acquisition. Students are challenged to apply higher-order thinking skills in all four language domains.

ENGLISH II – 1250 **AHS, CHS, PDHS, THS**
GRADE: 10 **CREDIT: 1**
PR: English I (1240)
Students build on English I skills, especially the use of informational texts and writing skills. Emphasis is on effective sentence construction, usage and mechanics in analytical essays, procedural or work-related documents, literary analysis, and expository and persuasive essays. World literature is used along with informational texts to develop more sophisticated reading skills that are related to various types of writing. Multimedia presentations are required. Students participate in the research process and synthesize their research into a written or oral presentation. Oral language and critical listening skills enhance student presentation skills necessary for the 21st Century learner. ***(STAAR-EOC)***

ENGLISH II–ADVANCED (PREVIOUSLY PRE-AP)– 1251 **AHS, CHS, PDHS, THS**
GRADE: 10 **CREDIT: 1**
PR: English I Pre-AP (1241)
Specific entrance criteria (see counselor for more information) Challenging world literature explores the universal concerns of man in society. Students study various genres, authors, and historical periods, combining research-based products with higher-level thinking skills. Writing and language skills receive strong emphasis. ***(STAAR-EOC)***

ENGLISH II–IH-PRE-IB– 1254 **AHS**
GRADE: 10 **CREDIT: 1**
PR: English I Pre-AP (1241)
English II Pre- IB emphasizes the development of advanced skills in composition and literary analysis. The course enables students to develop careful reading strategies, critical thinking skills, and composition skills as preparation for the International Baccalaureate classes in 11th and 12th grades. Assignments and activities for the class are designed to help students engage in deep analysis and develop their power of expression, both in oral and written communication, BY providing students with the opportunity to develop skills and knowledge that will form a useful and practical foundation for future college studies. ***(STAAR-EOC)***

ENGLISH III – 1260 **AHS, CHS, PDHS, THS**
GRADE: 11 **CREDIT: 1**
PR: English II (1250)
Students read and write extensively in multiple literary and informational genres from American and multicultural literature. Systematic vocabulary and language study enhances composition skills that incorporate research and documentation. The importance of the author's craft is emphasized in both the student's reading and writing. Emphasis is placed on persuasive and analytical writing, revision and editing skills, and preparing for college readiness. Multimedia presentations are required. Students participate in the research process and synthesize their research into a written or oral presentation. Oral language and critical listening skills enhance student presentation skills necessary for the 21st Century learner.

ENGLISH III– OnRamps-Rhetoric– 1263 **CHS, PDHS, THS**
GRADE: 11 **CREDIT: 1**
A course devoted to improving the student's writing and critical reading. Writing essays for a variety of purposes from personal to academic, including the introduction to argumentation, critical analysis, and the use of sources. The second semester (1302) is a more extensive study of the skills introduced in ENGL 1301 with an emphasis on critical thinking, research and documentation techniques, and literary and rhetorical analysis. This course is a dual enrollment course in partnership with the University of Texas.

ENGLISH III– AP – 1264 **AHS, CHS, PDHS, THS**
GRADE: 11 **CREDIT: 1**
PR: English II Pre-AP (1251)
Specific entrance criteria (see counselor for more information) Using a variety of non-fiction sources and American literature, students will be challenged to develop language and interpretation skills, strengthening writing and vocabulary skills to produce a variety of discourses and products. An examination of literary criticism focuses on both reading and writing.

ENGLISH III– IB – 1265 **AHS**
GRADE: 11 **CREDIT: 1**
PR: English III (1260)
English III IB is designed to prepare students to be successful in college. Students prepare for the IB battery of oral and written assessments as part of the language requirement for gaining an IB diploma. They view literature from the dual perspectives of readers and writers, and are exposed to a variety of texts representing different cultures and time periods. Students write in a variety of modes for different purposes. In accordance with the charter of WAIS, student exposure to world literature and thought prepares students to interact within and positively impact our global society

ENGLISH IV – 1270 **AHS, CHS, PDHS, THS**
GRADE: 12 **CREDIT: 1**
PR: English III (1260)
The study of British and world literature to understand the individual's role in society is explored through various literary and informational genres of text. Effective use of language and the writing process support student compositions and documents, whether literary, expository, procedural or work-related, or persuasive. Use of resources and media complement all studies as do oral communication and listening skills. The research process is well-developed in preparedness for college readiness.(may also be taken online through TX VSN)

ENGLISH IV-IB – 1276 **AHS**
GRADE: 12 **CREDIT: 1**
PR: English III-IB (1265)
English IV IB consists of a two-year program designed to prepare students to be successful in college. Students prepare for the IB battery of oral and written assessments as part of the language requirement for gaining an IB diploma. They view literature from the dual perspectives of readers and writers, and are exposed to a variety of texts representing different cultures and time periods. Students write in a variety of modes for different purposes. In accordance with the charter of WAIS, student exposure to world literature and thought prepares students to interact within and positively impact our global society.

ENGLISH IV–AP – 1277 **AHS, CHS, PDHS, THS**
GRADE: 12 **CREDIT: 1**
PR: English III AP (1264)
Specific entrance criteria (see counselor for more information) This course includes intensive college-level study of representative works from various genres and periods in British and world literature. Emphasis is on a work's structure, style, and theme, as well as elements such as figurative language, imagery, symbolism, and tone. Writing is text-centered, with an emphasis on developing stylistic maturity. (Dual credit option; may also be taken online through TX VSN)

COLLEGE PREPRATORY READING AND WRITING – 1280 **AHS, CHS, PDHS, THS**
GRADE: 12 **CREDIT: 1**
PR: English III (1260)
This course is not eligible for 4th English credit for Multi-Disciplinary Option 2 OR for students graduating under Foundation Graduation Plan. Students will learn to investigate academic texts, construct supported interpretations and arguments for an authentic audience, and acquire academic habits of thought. Reading instruction will focus on developing critical reading skills for comprehension, interpretation, and analysis. In writing, students will develop skills through composing with specific purpose, situation, genre, and audience in mind. Students will write a variety of effective formal and informal texts. To learn to integrate reading and writing, students will use an inquiry approach to analyze, synthesize, and make value judgments regarding text and writing. This course is designed to prepare students for college level reading and writing intensive courses, as well as fulfilling TSI requirements for reading and writing. Students who successfully complete this course to the satisfaction of the MOU will qualify to take ENGL 1301 with Amarillo College or West Texas A&M University. To find a list of other colleges/universities https://texascollegebridge.org/higher-ed/ This course is designed to fulfill a full advanced English credit.

BRITISH LITERATURE-DUAL ENROLLMENT – 1290 **PDHS**
GRADE: 12 **CREDIT: 1**
PR: English III-OnRamps (1263)
This course is a survey of British literature from the Old English period through the Restoration. This course is a dual enrollment course in partnership with West Texas A&M University.

HUMANITIES – 1291 **THS**
GRADE: 11—12 **CREDIT: 1**
PR: None
Reality through the Arts, an interdisciplinary, multi-perspective assessment of cultural, political, philosophical and aesthetic factors critical to the formulation of values and the historical development of the individual and of society. (Dual credit option- Humanities 1301)

RESEARCH/TECHNICAL WRITING—1228 **AHS, CHS, PDHS, THS**
GRADE: 12 **CREDIT: 1**
PR: None
The course is designed to be part research and part technical writing, so each unit is designed so that students experience both of those elements. Students will begin the course by researching and identifying a career or job interest, and students will then research and write based on that specific career/job. Student interests may change throughout the course of the year. Each unit will identify written products that all students will produce and then students individually will research and produce written products based on their career/job choice.

CREATIVE WRITING—1292 **AHS, CHS, PDHS, THS**
GRADE: 12 **CREDIT: 1**
PR: None
Creative writing is a course designed to allow students to write creatively in chosen genres. The first half of the course is a survey of various literary genres: fiction, cartoons, screenplays, poetry, plays. The second half is devoted to writing within a writing workshop setting, where students share their work with the class and revise. Students are able to write in whatever genre they prefer and will be encouraged to publish their work in outside publications as well as in a school publication created by members of the class.

AP SEMINAR—1296 **AHS, THS**
GRADE: 10-12 **CREDIT: 1**
PR: None
AP Seminar is a foundational course that engages students in cross-curricular conversations that explore the complexities of academic and real-world topics and issues by analyzing divergent perspectives. Using an inquiry framework, students practice reading and analyzing articles, research studies, and foundational, literary, and philosophical texts; listening to and viewing speeches, broadcasts, and personal accounts; and experiencing artistic works and performances. Students learn to synthesize information from multiple sources, develop their own perspectives in written essays, and design and deliver oral and visual presentations, both individually and as part of a team.

AP RESEARCH—1297 **AHS, THS**
GRADE: 11-12 **CREDIT: 1**
PR: AP SEMINAR (1296)
AP Research, the second course in the AP Capstone experience, allows students to deeply explore an academic topic, problem, issue, or idea of individual interest. Students design, plan, and implement a yearlong investigation to address a research question. Through this inquiry, they further the skills, they acquired in the AP Seminar course by learning research methodology, employing ethical research practices, and accessing, analyzing, and synthesizing information. The course culminates in an academic paper of 4,000-5,000 words and a presentation with an oral defense.

BUSINESS ENGLISH—0254c **AMTECH**
GRADE: 12 **CREDIT: 1**
PR: English III
In Business English, students enhance communication and research skills by applying them to the business environment, in addition to exchanging information and producing properly formatted business documents using emerging technology. Note: This course satisfies an English credit requirement for students on the Foundation High School Program.

SAT PREP – 1417 **AHS, CHS, PDHS, THS**
GRADE: 10-12 **CREDIT: .5**
PR: None
Provides students with a review of SAT verbal and math skills; an understanding of the types of questions found on the test; a knowledge of general test-taking strategies as well as the best specific strategies to use for each type of question.

Mathematics

ALGEBRA I – 4070 **AHS, CHS, PDHS, THS**
GRADE: 9 **CREDIT: 1**
PR: None
The study of linear functions, operations with real numbers and the Cartesian coordinate system. *This course must be passed before a student may take any other math course.* ***(STAAR-EOC)***

ALGEBRA I–ADVANCED (Previously Pre-AP) – 4021 **AHS, CHS, THS**
GRADE: 9 **CREDIT: 1**
PR: None
Includes all topics for Algebra I but addresses them with greater depth, rigor, and enrichment. *This course must be passed before a student may take any other math course.* ***(STAAR-EOC)***

ALGEBRA II – 4080 **AHS, CHS, PDHS, THS**
GRADE: 9-12 **CREDIT: 1**
PR: Algebra I (4070)
The study in symbolic reasoning and problem solving. It extends topics from Algebra I; students study complex numbers, rational expressions and equations, logarithms and conics.

ALGEBRA II–ADVANCED (Previously Pre-AP) – 4081 **AHS, CHS, PDHS, THS**
GRADE: 10-12 **CREDIT: 1**
PR: Algebra I-Pre-AP (4021) recommended OR Algebra I (4070)
This course includes all topics for Algebra II but addresses them with greater depth, rigor and enrichment.

GEOMETRY – 4092 **AHS, CHS, PDHS, THS**
GRADE: 9-12 **CREDIT: 1**
PR: Algebra I (4070)
Geometry is a study of deductive reasoning using properties of geometric figures. It also is a study of those properties and a study of congruence, similarity, area, volume, and problem solving

GEOMETRY–ADVANCED (Previously Pre-AP) – 4093 **AHS, CHS, PDHS, THS**
GRADE: 9-12 **CREDIT: 1**
PR: Algebra I--Pre-AP recommended OR Algebra I (4070)
This course includes all topics for Geometry but addresses them with greater depth, rigor, and enrichment.

PRE-CALCULUS – 4100 **AHS, CHS, PDHS, THS**
GRADE: 10-12 **CREDIT: 1**
PR: Algebra II (4080), Geometry (4092)
Pre-Calculus extends the topic covered in Algebra II and Geometry and broadens the students' understanding of mathematics. The course also covers Trigonometry and some Analytical Geometry.

PRE-CALCULUS–ADVANCED (Previously Pre-AP) – 4101 **AHS, PDHS, THS**
GRADE: 11 **CREDIT: 1**
PR: Algebra II (4081) recommended OR Algebra II (4080), Geometry Pre-AP (4093) recommended
Pre-Calculus Pre-AP includes all the elements taught in a regular Pre-Calculus class, extensions of those elements, additional elements and enrichment activities. Students planning to take Calculus—AP should enroll in this course. **(*Dual Credit option)***

PRE-CALCULUS-OnRamps – 4103 **CHS, PDHS, THS**
GRADE: 11-12 **CREDIT: 1**
PR: Algebra II (4080), Geometry (4092)
In OnRamps Precalculus, students will deepen and extend their knowledge of functions, graphs, and equations from their high school algebra and geometry courses so they can successfully work with the concepts in a rigorous university level calculus course. This course is designed to push students well beyond "drill and kill" type exercises, with an emphasis on unpacking mathematical definitions and making logical arguments to their peers. Each unit consists of a series of explorations designed to engage students and empower them to develop their problem-solving skills alongside the teacher. In each exploration, students will create connections with prior concepts in developing the current topic. Students will experience high-quality curriculum designed by the faculty at the University of Texas at Austin. The pedagogy of the course, Inquiry-Based Learning, encourages students to take an active role in the construction of their learning.

STATISTICS-OnRamps – 4106 **CHS, PDHS**
GRADE: 12 **CREDIT: 1**
PR: Algebra I (4070) and Algebra II (4080) Recommended
In this introductory statistics course, high school students have the opportunity to develop the quantitative reasoning skills and habits of mind necessary to use data science and mathematical thinking effectively across multiple disciplines. This course will hone relevant mathematical and critical thinking skills through scaffolded learning experiences and statistical methodologies. Students will learn the foundations of data science by engaging in hands-on analysis of real data, methods to extract key insights, and coding skills aligned to the expectations of higher education and today's workplace. Students will experience interactive applications built into the high-quality curriculum designed by the faculty at the University of Texas at Austin (UT Austin), allowing them to discover a more intuitive understanding of concepts. Collaborative problem-solving will be used to strengthen mathematical connections while individual depth of understanding will be reflected in regular assessments. Students can earn three hours of UT Austin credit with feedback and assessment provided by UT Austin course staff.

COLLEGE ALGEBRA-OnRamps – 4107 **CHS**
GRADE: 11-12 **CREDIT: 1**
PR: Algebra I (4070) and Geometry (Recommended)
In this course, students deepen their critical thinking skills and develop their ability to persist through challenges as they explore function families: Linear, Absolute Value, Quadratic, Polynomial, Radical, Rational, Exponential, and Logarithmic. Students analyze data algebraically and with technology while developing their knowledge of properties of functions, matrices and systems of equations, and complex numbers. Students will experience high-quality curriculum designed by the faculty at The University of Texas at Austin. The pedagogy of the course, Inquiry-Based Learning, encourages students to take an active role in the construction of their learning. This learning will be accomplished by abstraction, generalization, problem-solving, and modeling.

CALCULUS– 4109 **CHS, PDHS**
GRADE: 12 **CREDIT: 1**
PR: Pre-Calculus (4100)
During the first 12 weeks, topics of Analytic Geometry will be taught. This includes: fundamental concepts of coordinate geometry, the straight line, conics, simplification of equations, algebraic curves, transcendental functions, and parametric equations. The rest of the year (24 weeks) will include topics of Calculus: limits; differentiation; applications of differentiation; integration; logarithmic, exponential, and other transcendental functions; and applications of integration.

CALCULUS AB-AP – 4110 **AHS, CHS, PDHS, THS**
GRADE: 12 **CREDIT: 1**
PR: Pre-Calculus—Pre-AP (4101)
In this course, students will study concepts associated with differentiation and integration as outlined in the curriculum for Advanced Placement Calculus AB.

MATH SL-IA–IB—4111 and 4115 **AHS**
GRADE: 12 **CREDIT: 1**
PR: Pre-Calculus (4100)
This is a two-year course of study, building on knowledge gained in previous math courses. This course focuses on applications and interpretation with an emphasis on statistics, calculus, modelling and use of technology, useful for describing our world and solving practical problems—appropriate for those with an interest in the applications of mathematics and how technology can support this. Technology and calculator use is encouraged throughout the course. Higher Level contains all of the topics of the Standard Level with additional topics added for HL, including mathematics statistics and discrete math. This course is aimed at students who will go on to study subjects at university such as social sciences, natural sciences, statistics, business, some economics courses, psychology and design.

STATISTICS—4114 **AHS, CHS, PDHS, THS**
GRADE: 11-12 **CREDIT: 1**
PR: ALGEBRA I (4070)
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.

AP STATISTICS– 4116 **AHS**
GRADE: 12 **CREDIT: 1**
PR: Algebra II (4080) Recommended
The study of statistics includes exploring data (observing patterns and departures from patterns), planning a study (decide what and how to measure), anticipating patterns (produce models using probability and simulation), and statistical inference (confirming models). This course prepares students for the AP Statistics exam which could award college credit.
http://apcentral.collegeboard.com/apc/public/courses/teachers_corner/2151.html

MATH MODELS – 4141 **AHS**
GRADE: 11-12 **CREDIT: 1**
PR: Algebra I (4070)
Students use mathematical methods to model and solve real-life applied problems involving money, data, chance, patterns, music, design, and science.

INTRODUCTION TO CALCULUS – INDEPENDENT STUDY – 4147 **AHS, PDHS THS**
GRADE: 11-12 **CREDIT: 1**
PR: (4080), (4092), & (4100)
In this course, students will study concepts associated with limits, differentiation and integration.

ADVANCED QUANTITATIVE REASONING – 4145 **AHS**
GRADE: 11-12 **CREDIT: 1**
PR: (4070, 4092, and 4080)
This course follows Algebra I, Geometry and Algebra II and emphasizes statistics and financial applications, and it prepares students to use algebra, geometry, trigonometry, and discrete mathematics to model a range of situations and solve problems.

ALGEBRAIC REASONING—4148 **AHS, CHS, PHDS, THS**
GRADE: 10-12 **CREDIT: 1**
PR: ALGEBRA I (4070)
In Algebraic Reasoning, students will build on the knowledge and skills for 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 to workforce and college readiness such as probes, measurement tools, and software tools, including spreadsheets.

TECHNICAL MATH – 4120c **AMTECH**
GRADE: 11-12 **CREDIT: 1**
PR: ALGEBRA I (4070)
This course concentrates on the application of mathematics as it relates to technical careers. Problem solving situations, hands-on activities and technology are used in this course to extend mathematical thinking and engage student reasoning. Situations relating to technical applications provide students opportunities to make connections with mathematics and the workplace. In addition, students will learn the skills necessary to communicate using mathematics. Hands-on activities will allow students to model, explore and develop abstract concepts applicable to technical careers. Essential to this course is the partnership between math and technical teachers.

MEDICAL MATH—4155c **AMTECH**
GRADE: 12 **CREDIT: 1**
PR: ALGEBRA I (4070)
This course is not eligible for 4th Math credit for Multi-Disciplinary Option 2 OR for students graduating under Foundation Graduation Plan.
This course is an instructional program that prepares students with skills to compute mathematical equations related to healthcare. The course integrates medical-physiological concepts and mathematics. Students will engage in math activities including problem solving, reasoning and proof, communication, connections, and representations.

COLLEGE PREP MATH – 4150 **AHS, CHS, PDHS, THS**
GARDE: 12 **CREDIT: 1**
PR: ALGEBRA I (4070)
This course is not eligible for 4th Math credit for Multi-Disciplinary Option 2 OR for students graduating under 4x4. This course was developed in conjunction Texas College Bridge to satisfy requirements of **TEC 28.014**

to prepare students for success in entry level college level courses. Successful completion of this course may count as the 4th year math credit on the foundation program, and will count as TSI exemption for Amarillo College and West Texas A&M University for a list of other colleges/universities please check here https://texascollegebridge.org/higher-ed/. Students will be able to define, represent, and perform operations on real and complex numbers, recognize, understand, and analyze features of a function, recognize and use algebraic (field) properties, concepts, procedures (including factoring), and algorithms to combine, transform, and evaluate absolute value, polynomial, radical, and rational expressions, identify and solve absolute value, polynomial, radical, and rational equations, identify and solve absolute value linear inequalities, model, interpret, and justify mathematical ideas and concepts using multiple representations, and connect and use multiple strands of mathematics in situations and problems, as well as in the study of other disciplines.

AP COMPUTER SCIENCE A – 4171c **AMTECH**
GRADE: 10-12 **CREDIT: 1**
PR: Algebra (4070)
The AP Computer Science A course introduces students to computer science with fundamental topics that include problem solving, design strategies and methodologies, organization of data (data structures), approaches to processing data (algorithms), analysis of potential solutions, and the ethical and social implications of computing. The course emphasizes both object-oriented and imperative problem solving and design. Meets advanced math and LOTE requirements.

ROBOTICS II--0824c **AMTECH**
GRADE: 10–12 **CREDIT: 1**
PR: 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.
NOTE: This course satisfies a math credit for graduation.

Science

BIOLOGY **AHS, CHS, PDHS, THS 4350**
GRADE: 9-12 **CREDIT: 1**
PR: None
Students will study a variety of topics including biological organization and development of organisms, biochemistry and molecular genetics, biological evolution, taxonomy, energy exchange in ecosystems, and ecology. **(STAAR EOC)**

BIOLOGY—ADVANCED (Previously Pre-AP) --4351 **AHS, CHS, PDHS, THS**
GRADE: 9-11 **CREDIT: 1**
PR: Science 8 ADVANCED Students will study the principles and concepts of Biology in an enriched basis to prepare them for Biology AP, a college-equivalent course taught in high school. **(STAAR EOC)**

INTEGRATED PHYSICS & CHEMISTRY--4340 **AHS, CHS, PDHS, THS**
GRADE: 9-12 **CREDIT: 1**
PR: None
Students will study a variety of topics including motion, waves, energy transformations, properties of matter, changes in matter, and solution chemistry.

CHEMISTRY—4370 **AHS, CHS, PDHS, THS**
GRADE: 10-12 **CREDIT: 1**
PR: Algebra I (4070) Students will study a variety of topics including matter with energy transformations during physical and chemical changes, characteristics of the periodic table of elements, bonding in many types of chemical reactions, nuclear fusion and nuclear fission.

CHEMISTRY— ADVANCED (Previously Pre-AP)--- 4371 **AHS, CHS, PDHS, THS**
GRADE: 10-12 **CREDIT: 1**
PR: Algebra I (4070) & IPC (4340) or Biology— Pre-AP (4351) Students will study the principles and concepts of Chemistry in an enriched setting to prepare the student to take Chemistry-AP, which is a college-equivalent course taught in high school.

PHYSICS—4390 **AHS, CHS, PDHS, THS 4390**
GRADE: 11-12 **CREDIT: 1**
PR: Concurrent enrollment in Algebra II - Students will study a variety of topics through conceptual methods, applied math, and experimental data, including many forms of energy, such as mechanical energy, heat energy, wave mechanics, and electrical energy.

PRINCIPLES OF TECHNOLOGY—0809 **CHS, PDHS, THS 0809**
GRADE: 11-12 **CREDIT: 1**
PR: None Principles of Technology is a course in applied science that is designed to prepare students more effectively for the advances in technology. It uniquely teaches traditional physics concepts in the context of their relationship to the four energy systems; mechanical, fluid, electrical, and thermal. Emphasis is placed on hands on activities, creative thinking and problem solving, while having fun learning.

BIOLOGY—AP—4361 **AHS, CHS, PDHS, THS**
GRADE: 11-12 **CREDIT: 1**

PR: (4350) or (4351) & (4370) or (4371) Students will learn about the core scientific principles, theories, and processes governing living organisms, biological systems, and natural phenomena. Understand key science practices you can use to develop explanations and predictions of natural phenomena, which you will test and refine through laboratory investigations. Develop advanced reasoning and inquiry skills as you design experiments, collect and analyze data using mathematics and other methods, and interpret that data to draw conclusions. ***(Dual Credit option)***

CHEMISTRY—AP **AHS, PDHS, THS 4381**
GRADE: 11-12 **CREDIT: 1**
PR: Chemistry—Pre-AP (4371)
Students will study in-depth, college-level Chemistry with much of the curriculum determined by the College Board Publication *Advanced Placement Course Description: Chemistry.* ***(Dual Credit option)***

PHYSICS 1—AP—4394 **AHS, CHS, PDHS, THS**
GRADE: 11-12 **CREDIT: 1**
PR: None
Students will explore topics such as Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound; and introductory, simple circuits.
(Dual Credit option 2ND semester only)

PHYSICS 1 OnRamps—4395 **CHS, PDHS**
GRADE: 11-12 **CREDIT: 1**
PR: Algebra I, Geometry, Algebra II or Pre-Calculus Recommended
Mechanics, Heat, and Sound introduces big ideas in physics, such as Newtonian mechanics (including motion, force, energy, and rotation), as well as solid and fluid mechanics, oscillations, waves, sound, and heat. Taken together, the topics reinforce the general idea that the behavior of many systems in the world can be described precisely with simple mathematics. This is an algebra-based (non-calculus) course in mechanics that fulfills a general physics requirement. Proficiency in algebra and geometry is assumed. This course lays the conceptual groundwork for STEM majors. Students will experience a high-quality curriculum designed by the faculty at The University of Texas at Austin (UT Austin). Students can earn up to four hours of UT Austin credit, with feedback and assessment provided by UT Austin course staff. General Physics Laboratory I—the course's lab component—engages students in both guided and open inquiry investigations of physical principles. It is designed to instill foundational scientific reasoning, data collection, and analytical skills.

PHYSICS 2—AP—4396 **AHS, CHS, PDHS, THS**
GRADE 11-12 **CREDIT: 1**
PR: Physics I
Students will develop scientific critical thinking and reasoning skills through inquiry-based learning. They will explore topics such as fluid statics and dynamics; thermodynamics with kinetic theory; PV diagrams and probability; electrostatics; electrical circuits with capacitors; magnetic fields; electromagnetism; physical and geometric optics; and quantum, atomic, and nuclear physics. ***(Dual Credit option 2ND semester only)***

EARTH AND SPACE SCIENCE—4403 **AHS, CHS, PDHS, THS**
GRADE: 12 **CREDIT: 1**
PR: 3 units of science and math Earth and space science has three strands: systems, energy, and relevance. These strands are used throughout the following three themes: Earth in space in time, solid Earth, and fluid Earth. A study of interactions among Earth's five subsystems and how they affect Earth's habitability will complete this capstone science course.

ANATOMY & PHYSIOLOGY OF HUMAN SYSTEMS—0455c/0455 **AMTECH, AHS, CHS, PDHS, THS**
GRADE: 11-12 **CREDIT: 1**
PR: (4350) or (4351) & (4370) or (4371)
Students will study a variety of topics including the structural makeup of the human body and the manner in which those structures function and interact with one another.

AQUATIC SCIENCE PRE-AP—4421 **THS**
GRADE: 11-12 **CREDIT: 1**
PR: Biology (4350) Students will study relationships among aquatic habitats and ecosystems, adaptations of aquatic organisms, geological phenomena, and origin and use of water in a watershed.

ENVIRONMENTAL SYSTEMS—4418 **THS**
GRADE 11-12 **CREDIT: 1**
The course explores the nature of science and the natural world. Students examine environmental issues and learn to make informed decisions by evaluating scientific evidence. Specific topics include the nature of science and science safety, the history of environmental science, interactions between Earth's systems, ecological interactions, matter and energy flow in ecosystems, biodiversity, characteristics and growth of populations, adaptations, environmental disturbances and succession, biogeochemical cycles, and characteristics of terrestrial and aquatic biomes.

FORENSIC SCIENCE—4404/4404c **AMTECH, AHS,CHS,PDHS,THS**
GRADE 11-12 **CREDIT: 1**
The Forensic Science curriculum is designed to build upon science concepts and to apply cience to the investigation of crime scenes. It serves as a fourth year of science for graduation and may serve in selected Career Technology programs. Students will learn the scientific protocols for analyzing a crime scene, how to use chemical and physical separation methods to isolate and identify materials, how to analyze biological evidence and the criminal use of tools, including impressions from firearms, tool marks, arson, and explosive evidence.

GEOSCIENCE-OnRamps—4406 **AHS, CHS, PDHS, THS**
GRADE 11-12 **CREDIT: 1**
PR: Biology or IPC, Chemistry (recommended or concurrent enrollment)
Earth, Wind, and Fire is a course in geoscience literacy. It covers the fundamentals of how the Earth works, and how its various systems—the lithosphere, atmosphere, hydrosphere, and biosphere—interact to form the complex world in which we live. Geoscience is the study of the Earth. In this course, students will study the Earth as an integrated science, applying the fundamental principles of physics, chemistry, biology, and geosciences to explain Earth processes. Many of the most complex and interesting scientific problems of this century, such as energy resources, water supply, and climate change, require geologic thinking skills to solve. This class introduces students to the major areas in geoscience and helps them develop critical, creative, and geologic problem-solving skills, as applied to current scientific problems. Students will experience curriculum designed by the faculty at the University of Texas at Austin (UT Austin). Students can earn three hours of UT Austin credit with feedback and assessment provided by UT Austin course staff.

ASTRONOMY—4413 **PDHS**
GRADE 11-12 **CREDIT: 1**
PR: 2 Science credits
Students conduct laboratory and field investigations, use scientific methods, and make informed decisions using critical thinking and scientific problem solving. Students study the following topics: astronomy in civilization, patterns and objects in the sky, our place in space, the moon, seasons, gravity, spectroscopy, telescopes, planets, the sun, stars, galaxies, cosmology, and space exploration. Students who successfully complete Astronomy will acquire knowledge within a conceptual framework, conduct observations of the sky, work collaboratively, and develop critical-thinking skills.

ADVANCED ANIMAL SCIENCE--0105c **AMTECH**
GRADE: 11-12 **CREDIT: 1**
PR: Biology and Chemistry or IPC; Algebra I and Geometry; Small Animal Management, Equine Science, or Livestock Production.
Advanced Animal Science examines the interrelatedness of human, scientific, and technological dimensions of livestock production. Instruction is designed to allow for the application of scientific and technological aspects of animal science through field and laboratory experiences. *Note: This course satisfies a science credit requirement for graduation.*

ENGINEERING SCIENCE--0817c **AMTECH**
GRADE: 10-11 **CREDIT: 1**
Recommended PR: Geometry, IPC and Chemistry, or one credit in Physics.
PR: Algebra I and Biology and at least one credit in a course from the STEM career cluster.
Engineering Science is an engineering course designed to expose students to some of the major concepts and technologies that they will encounter in a postsecondary program of study in any engineering domain. Students will have an opportunity to investigate engineering and high-tech careers. In Engineering Science, students will employ science, technology, engineering, and mathematical concepts in the solution of real-world challenge situations. Students will develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges. Students will also learn how to document their work and communicate their solutions to their peers and members of the professional community. *Note: This course satisfies a science credit requirement for students on the Foundation High School Program.*

Social Studies

WORLD GEOGRAPHY—4640 **AHS, CHS, PDHS, THS**
GRADE: 9-12 **CREDIT: 1**
PR: None
This course provides an opportunity for students to examine the interactions of human beings and their environment in both space and time.

AP HUMAN GEOGRAPHY—4645 **AHS, CHS, PDHS, THS**
GRADE: 9-12 **CREDIT: 1**
PR: None
Human geography is the study of where people live, why they live there, what they do while they live there, and what they are like as they live there. The simpler explanation is culture (all aspects, language, religion, ethnicity, etc.), economic activity, and political organization over space, population distribution, human environment interaction, urban patterns, agriculture, etc.

WORLD HISTORY—4650 **AHS, CHS, PDHS, THS**
GRADE: 9-12 **CREDIT: 1**
PR: None
This course is intended to give the student an understanding of the changing world in which he/she lives through a study of some of the significant world cultures, past and present.

AP-WORLD HISTORY— 4653 **AHS, CHS, PDHS THS**
GRADE: 9-12 **CREDIT: 1**
PR: None
The AP World History course offers students the opportunity to immerse themselves in the processes that, over time, have resulted in the knitting of the world into a tightly integrated whole. This course offers an approach that lets students “do history” by guiding them through the steps a historian would take in analyzing historical events and evidence worldwide over a millennium. The course offers truly balanced global coverage with Africa, the Americas, Asia, and Europe each represented. AP classes require additional time on the part of the student for reading a larger number of assignments than would normally be given to students in regular classes.

UNITED STATES HISTORY—4660 **AHS, CHS, PDHS, THS**
GRADE: 11-12 **CREDIT: 1**
PR: None
This course completes the required two-year study of Credited States history begun in the eighth grade. Content includes political, economic, social, and cultural developments. **(STAAR EOC)**

UNITED STATES HISTORY-OnRamps—4662 **CHS, PDHS, THS**
GRADE: 11-12 **CREDIT: 1**
PR: High School English II (concurrent or prerequisite)
Students explore the scope and depth of the American experience. Students engage with course material both independently and collaboratively to develop critical thinking skills, analyze evidence-based historical narratives, and conduct archival research. Each unit consists of primary and secondary sources that challenge students to uncover the complexities within historical study. History 315K surveys America from the colonial beginnings through the Civil War, and History 315L explores the post Civil War era through the end of the 20th century. **(STAAR EOC)**

AP UNITED STATES HISTORY—4662 **AHS, CHS, PDHS, THS**
GRADE: 11-12 **CREDIT: 1**
PR: None
This course is fast-paced and demanding in the study of American History from colonial times to the present. It requires rigorous reading and writing assignments, independent study, and the completion of a variety of research projects. ***(Dual Credit Option) (STAAR EOC)***

UNITED STATES GOVERNMENT—4690 **AHS, CHS, PDHS, THS**
GRADE: 11-12 **CREDIT: .5**
PR: U.S. History (4660)
The focus of this course is on the U.S. Constitution including an analysis of the following: republicanism, federalism, checks and balances, separation of power, popular sovereignty, individual rights, and state and local government.

AP UNITED STATES GOVERNMENT & POLITICS—4695 **AHS, CHS, PDHS, THS**
GRADE: 11-12 **CREDIT: .5**
PR: US History-AP (4662)
This course is designed to prepare students to take the Advanced Placement exam. **(*Dual credit option)***

SOCIAL STUDIES SPECIAL TOPICS—4673 **AHS, CHS, PDHS, THS**
GRADE: 11-12 **CREDIT: .5**
In Special Topics in Social Studies, an elective course, students are provided the opportunity to develop a greater understanding of the historic, political, economic, geographic, multicultural, and social forces that have shaped their lives and the world in which they live.

AFRICAN AMERICAN STUDIES—4674 **AHS, CHS, PDHS, THS**
GRADE: 9-12 **CREDIT: 1**
African American Studies is a conceptually driven course that introduces students to the exploration of the rich and diverse history and culture of African Americans. The goal of this course is to broaden the knowledge and understanding of students interested in learning about history, citizenship, culture, economics, science, technology, geography, and the political realities of African Americans. These strands should not be taught in isolation but woven together in an integrated study that helps students understand the world in which we live. This course should provide students with an opportunity to engage with the social, economic, and political activities of African Americans in a way that allows them to make deep connections across the content. The historical content of this course should be taught with relevance to contemporary and current issues in order to ensure a deeper understanding for students.

MEXICAN AMERICAN STUDIES—4675 **AHS, CHS, PDHS, THS**
GRADE: 9-12 **CREDIT: 1**
In Mexican American Studies, students learn about the history and cultural contributions of Mexican Americans. Students will explore history and culture from an interdisciplinary perspective. They will have opportunities to interact with relevant film, literature, art, and other media. The course emphasizes developments in the twentieth and twenty-first centuries, but students will also engage with developments prior to the twentieth century.

ECONOMICS—4700 **AHS, CHS, PDHS, THS**
GRADE: 11-12 **CREDIT: .5**
PR: U.S. History
This course is designed to provide students with an understanding of the essentials and benefits of the free enterprise system through a study of basic economy principles and theories concerning production, consumption, and distribution of goods and services. The roles of labor, business, government, and individuals in the U.S. economic system will be analyzed.

AP MACROECONOMICS—4705 **AHS, CHS, PDHS, THS**
GRADE: 12 **CREDIT: .5**
PR: AP US History (4662)
This course will have intensive reading and writing assignments. Emphasis will be placed on current events and major economic situations in the U.S. and how they tie into global situation. **(*Dual credit option)***

AP MICROECONOMICS—4706 **AHS, THS**
GRADE: 11-12 **CREDIT: .5**
PR: AP U.S. History (4662)
The purpose of an AP course in Microeconomics is to provide a thorough understanding of the principles of economics that apply to the functions of individual decision makers, both consumers and producers, within the larger economic system. It places primary emphasis on the nature and functions of product markets, and includes the study of factor markets and of the role of government in promoting greater efficiency and equity in the economy.

PERSONAL FINANCIAL LITERACY—4709 **AHS, CHS, PDHS, THS**
GRADE: 11-12 **CREDIT: .5**
This one-semester course will develop citizens who have the knowledge and skills to make sound, informed financial decisions that will allow them to lead financially secure lifestyles and understand personal financial responsibilities. The course is designed to be an interactive and research-based course where student will 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. This course will satisfy the financial literacy graduation requirement.

AP PSYCHOLOGY—4729 **AHS, PDHS, THS**
GRADE: 10-12 **CREDIT: .5**
The AP Psychology course is designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. They also learn about the ethics and methods psychologists use in their science and practice.

PSYCHOLOGY—4730 **PDHS, THS**
GRADE: 10-12 **CREDIT: .5**
PR: None
A survey of the basic principles underlying human behavior and mental processes. Emphasis will be placed in major areas of study in the field of psychology, such as motivation, development, thought processes, and personality.

SOCIOLOGY—4740 **PDHS, THS**
GRADE: 10-12 **CREDIT: .5**
PR: None
A survey course which focuses on the nature of human groups in American and world societies, their social and cultural adaptations, and the impact which various social processes may have on their social organization and social change.

AP EUROPEAN HISTORY—4670 **AHS**
GRADE: 12 **CREDIT: .5**
The study of European history since 1450 introduces students to cultural, economic, political, and social developments that played a fundamental role in shaping the world in which they live. Without this knowledge, we would lack the context for understanding the development of contemporary institutions, the role of continuity and change in present-day society and politics, and the evolution of current forms of artistic expression and intellectual discourse. **(Dual credit option, 2nd semester only)**

Languages Other Than English (LOTE)

AMERICAN SIGN LANGUAGE I—3190 **AHS, CHS, PDHS, THS**
GRADE: 9-12 **CREDIT: 1**
PR: None
In ASL I students learn the phonology, morphology, syntactical, semantical, and pragmatics of the primary language for the deaf. Deaf culture is emphasized through video tapes and articles.

AMERICAN SIGN LANGUAGE II—3192 **AHS, CHS, PDHS, THS**
GRADE: 9-12 **CREDIT: 1**
PR: ASL I (3190)
In ASL II the students perfect and broaden their skills in ASL I by the use of social expression, body placement and gestures through conversation and interpretation. Students broaden their knowledge and understanding of deaf culture.

AMERICAN SIGN LANGUAGE III-3194 **AHS, CHS**
GRADE: 9-12 **CREDIT: 1**
PR: ASL II (3192)
In ASL III the students perfect and broaden their skills in ASL I by the use of social expression, body placement and gestures through conversation and interpretation. Students broaden their knowledge and understanding of deaf culture.

AMERICAN SIGN LANGUAGE IV-3197 **AHS, CHS**
GRADE: 9-12 **CREDIT: 1**
PR: ASL III (3194)
In ASL IV the students perfect and broaden their skills in ASL I by the use of social expression, body placement and gestures through conversation and interpretation. Students broaden their knowledge and understanding of deaf culture.

FRENCH I—3126 **AHS, PDHS, THS**
GRADE: 9-12 **CREDIT: 1**
PR: None
French I is an introductory course which focuses on the four basic skills of reading, writing, speaking, and listening. The learning of basic grammar, vocabulary, and French culture are incorporated into all the skills.

FRENCH I ADVANCED (Previously Pre-AP)—3127 **THS**
GRADE: 9-12 **CREDIT: 1**
PR: None
An introductory course which focuses on the four basic skills of reading, writing, speaking, and listening. The learning of basic grammar, vocabulary, and French culture are incorporated into all the skills. Emphasis is placed on learning the reading and speaking skills for use on the AP test after level 3 or 4.

FRENCH II—3129 **AHS, PDHS, THS**
GRADE: 10-12 **CREDIT: 1**
PR: French I (3126)
French II reinforces and expands the development of the four basic language skills. An emphasis is placed on conversational skills and a more in-depth study of the culture and history.

FRENCH II PRE-AP—3130 **THS**
GRADE: 10-12 **CREDIT: 1**
PR: French I Pre-AP (3127) or French I (3126)
French II Pre-AP focuses on the skills needed for the French Language AP test. Speaking, writing, reading, and listening skills are enhanced and grammar is in depth and accelerated. Language usage is encouraged by class discussions and active participation. French history and culture are explored.

FRENCH III ADVANCED (Previously Pre-AP)—3132 **THS**
GRADE: 11-12 **CREDIT: 1**
PR: French II (3129) or French II Pre-AP (3130)
French III Pre-AP encourages the student to use the language through class discussion and active participation. A thorough study of French history and literature aids reading and writing skills.

AP FRENCH IV-3145 **THS**
GRADE: 12 **CREDIT: 1**
PR: French III Pre-AP (3132)
French IV-AP encourages the student to use the language through class discussion and active participation. A thorough study of French history and literature aids reading and writing skills.

GERMAN I--3168 **TXVSN**
GRADE: 9-12 **CREDIT: 1**
PR: None
In German I, the student is introduced through communication, culture, connection and comparisons to other languages and the extension of languages into the community at a novice level. (may also be taken online through TX VSN)

GERMAN II --3171 **TXVSN**
GRADE: 10-12 **CREDIT: 1**
PR: German I (3168)
In German II, students continue their learning through communication, culture, connection and comparisons to other languages and the extension of languages into the community. (may also be taken online through TX VSN)

GERMAN III --3174 **TXVSN**
GRADE: 11-12 **CREDIT: 1**
PR: German II (3171)
In German III—Pre-AP, students expand their knowledge and experience with language through communication, culture, connection, and comparison to other languages and extension of language into community at an intermediate level. Students are introduced to literature selections.

GERMAN IV -AP—3178 **TXVSN**
GRADE: 12 **CREDIT: 1**
PR: German III (3174)
In German IV-AP, students will further develop their skills in German through communication, culture, connection, and comparison to other languages at an intermediate level with further emphasis on literature and expanded use of technology. Students continue study of literature selections at the college level

LATIN I--3140 **AHS, PDHS**
GRADE: 9-12 **CREDIT: 1**
PR: None
In Latin I, the student acquires the fundamental principles of Latin grammar and vocabulary as well as develops reading skills and a broader English vocabulary through the study of word derivation. The student also acquires knowledge and appreciation of the civilization of the ancient world through a study of its culture, history, mythology, and literature. (may also be taken online through TX VSN)

LATIN II—3143 **AHS, PDHS**
GRADE: 9-12 **CREDIT: 1**
PR: Latin I (3140)
In Latin II, the student thoroughly reviews and expands his/her knowledge of Latin grammar, vocabulary, and the civilization of the classical world, while further developing reading skills and further expanding English vocabulary through continued study of word derivation. (may also be taken online through TX VSN)

LATIN II—ADVANCED (Previously Pre-AP)—3144 **AHS**
GRADE: 9-11 **CREDIT: 1**
PR: Latin I (3140)
The Latin II curriculum will be covered with added focus on advanced grammar and reading. This course will be an accelerated program for students planning to prepare seriously for the AP exam and for those on the DAP graduation plan.

LATIN III— ADVANCED (Previously Pre-AP)—3146 **AHS, PDHS**
GRADE: 11-12 **CREDIT: 1**
PR: Latin I (3143)
This course develops vocabulary, grammar, and reading skills through a survey of various Latin authors and literacy genres. This course of study is designed to prepare the student to read and appreciate the AP syllabus in levels IV and V.

AP LATIN IV-3148 **AHS, PDHS**
GRADE: 12 **CREDIT: 1**
PR: Latin III (3146)
This course prepares the student to take the Virgil AP exam, as it delves very deeply into each poem listed in the syllabi for these exams.

SPANISH I—3154 **AHS, CHS, PDHS, THS**
GRADE: 9-12 **CREDIT: 1**
PR: None
In Spanish I, the student is introduced to Spanish through communication, culture, connection, and comparisons to other languages and extension of languages into the community at a novice level.

SPANISH II—3157 **AHS, CHS, PDHS, THS**
GRADE: 9-12 **CREDIT: 1**
PR: Spanish I (3154)
In Spanish II, students continue their learning of Spanish through communication, culture, connection, and comparisons to other languages and extension of languages into the community. (may also be taken online through TX VSN)

SPANISH II—ADVANCED (Previously Pre-AP)—3159 **AHS, THS**
GRADE: 9-10 **CREDIT: 1**
PR: Spanish I (3154)
Students will focus on the areas of reading, writing, listening speaking, culture, and communication in preparation for the fourth-year Spanish AP test.

SPANISH III—3156 **AHS**
GRADE: 9-12 **CREDIT: 1**
PR: Spanish II (3157)
In Spanish III, students expand their knowledge and experience with language through communication, culture, connection, and comparison to other languages and extension of language into community at an intermediate level. (may also be taken online through TX VSN)

SPANISH III—ADVANCED (Previously Pre-AP)—3160 **AHS, CHS, PDHS, THS**
GRADE: 10-12 **CREDIT: 1**
PR: Spanish II (3157)
In Spanish III—Pre-AP, students expand their knowledge and experience with language through communication, culture, connection, and comparison to other languages and extension of language into community at an intermediate level. **(Dual credit option)**

AP SPANISH IV-3164 **AHS, CHS, PDHS, THS**
GRADE: 9-12 **CREDIT: 1**
PR: Spanish III (3160)
In Spanish IV-AP, students will further develop their skills in Spanish through communication, culture, connection, and comparison to other languages at an intermediate level with further emphasis on literature and expanded use of technology.

AP-SPANISH V---3167 **AHS, CHS, PDHS, THS**
GRADE: 11-12 **CREDIT: 1**
PR: Spanish IV (3164)
In Spanish V-AP, students will further develop and apply their skills through communication, culture, connection, and comparison to other languages with further emphasis on literature and expanded use of technology.

Physical Education/Athletics Course Descriptions

PE IA—FOUNDATIONS OF PERSONAL FITNESS—3621 **AHS, CHS, PDHS, THS**
GRADE: 9-12 **CREDIT: 1**
PR: None
The purpose of this course is to motivate students to strive for lifetime personal fitness, with an emphasis on their overall health.

PE EQUIVALENT I—3694 **AHS, CHS, PDHS, THS**
GRADE: 9-12 **CREDIT: 1**
PR: Application with counselor.

INDIVIDUAL AND TEAM SPORTS—3624 **AHS, CHS, PDHS, THS**
GRADE: 9-12 **CREDIT: 1**
PR: None
Students will be introduced to a variety of individual sports which can be pursued as lifetime activities. Students will be introduced to a variety of team sports, their rules, and an appreciation for teamwork and fair play.

ATHLETIC TRAINER I—3692 **AHS, CHS, PDHS, THS**
Grade: 9-11 **CREDIT: 1**
PR: None
Introduction to sports medicine. This course will prepare the student to use basic first aid, taping, and bandaging techniques in the care and prevention of athletic injuries.

ATHLETIC TRAINER II—3693 **AHS, CHS, PDHS, THS 3693**
GRADE: 10-12 **CREDIT: 1**
PR: (3692)
An advanced instruction of the techniques of athletic training with concentration on the study of trauma care and rehabilitation of the athlete.

SPORTS MEDICINE I—3698 **AHS, CHS, PDHS, THS**
GRADE: 11-12 **CREDIT: 1**
PR: Athletic Trainer II
This course provides an opportunity for the study and application of the components of sports medicine including sports medicine, concepts of sports injury, athletic healthcare team, sports injury law, sports injury prevention, sports psychology, nutrition, recognition of injuries, emergency action plan and initial injury evaluation, first aid/CPR/AED, the injury process, immediate care of athletic injuries of specific body areas, skin conditions in sports, blood borne pathogens, thermal injuries, and special medical concerns of the adolescent athlete.

SPORTS MEDICINE II—3699 **AHS, CHS, PDHS, THS**
GRADE: 11-12 **CREDIT: 1**
PR: Sports Med. I (3698)
This course provides a more in-depth study and application of the components of sports medicine including: CPR and AED certification, rehabilitative techniques; therapeutic modalities; prevention, recognition, and care of injuries to the head and face, spine, upper extremity, lower extremity; taping and bandaging; injuries to the young athlete; substance abuse in sports; and general health concerns in sports medicine. Individualized and independent assignments will be included in this course. This course will involve outside-of-class time homework and time required working with athletes and athletic teams.

BASEBALL--3665 — **AHS, CHS, PDHS, THS**
GRADE: 9-12 — **CREDIT: .5, 1**
PR: Tryout process

BASKETBALL—9TH — **AHS, CHS, PDHS, THS**
GRADE: 9 — **CREDIT: 1**
BOYS 3702
GIRLS 3715
PR: Tryout process

BASKETBALL — **AHS, CHS, PDHS, THS**
GRADE: 10-12 — **CREDIT: 1**
BOYS 3667
GIRLS 3675
PR: Tryout process

COMPETITIVE SWIMMING--3681 — **AHS, CHS, PDHS, THS**
GRADE: 9-12 — **CREDIT: 1**
PR: Tryout process

CROSS COUNTRY — **AHS, CHS, PDHS, THS**
GRADE: 9-12 — **CREDIT: .5, 1**
BOYS 3671
GIRLS 3678
PR: Tryout process

DRILL TEAM--3723 — **CHS**
GRADE: 11 — **CREDIT: .5, 1**
PR: Tryout process

FOOTBALL—3701 — **AHS, CHS, PDHS, THS**
GRADE: 9 — **CREDIT: 1**
PR: Tryout process

FOOTBALL--3664 — **AHS, CHS, PDHS, THS**
GRADE: 10-12 — **CREDIT: 1**
PR: Tryout process

GOLF TEAM — **AHS, CHS, PDHS, THS**
GRADE: 9-12 — **CREDIT: 1**
BOYS 3669
GIRLS 3679
PR: Tryout process

SOCCER TEAM — **AHS, CHS, PDHS, THS**
GRADE: 9-12 — **CREDIT: 1**
BOYS 3670

GIRLS 3680
PR: Tryout process

SOFTBALL-GIRLS—3688 **AHS, CHS, PDHS, THS**
GRADE: 9-12 **CREDIT: 1**
PR: Tryout process

TENNIS TEAM A—VARSITY--3683 **AHS, CHS, PDHS, THS**
GRADE: 9-12 **CREDIT: 1**
PR: Tryout process

TENNIS TEAM B--3684 **AHS, CHS, PDHS, THS**
GRADE: 9-11 **CREDIT: 1**
PR: Tryout process introduction to competitive tennis.

TENNIS TEAM—JV--3686 **AHS, CHS, PDHS, THS**
GRADE: 9-11 **CREDIT: 1**
PR: Tryout process

TRACK **AHS, CHS, PDHS, THS**
GRADE: 9-12 **CREDIT: .5, 1**
BOYS 3668
GIRLS3677
PR: Tryout process

VOLLEYBALL--GIRLS--3714 **AHS, CHS, PDHS, THS**
GRADE: 9 **CREDIT: 1**
PR: Tryout process

VOLLEYBALL—GIRLS--3676 **AHS, CHS, PDHS, THS**
GRADE: 10-12 **CREDIT: .5, 1**
PR: Tryout process

WRESTLING **AHS, CHS, PDHS, THS**
GRADE: 9-12 **CREDIT: 1**
BOYS 3666
GIRLS 3659
PR: Tryout process

Fine Arts

ART I—2235 **AHS, CHS, PDHS, THS**
ART APPRECIATION-ART I ONLINE (fee required) **CREDIT: 1**
AVA (Amarillo Virtual Academy) 2235ae
GRADE: 9-12
PR: None
The elements and principles of art will be studied through a variety of techniques and media. This class is the prerequisite to all other art classes. (may also be taken online through Amarillo Online School)

ART II – DRAWING—2256 **AHS, CHS, PDHS, THS**
GRADE: 10-12 **CREDIT 1**
PR: Art I (2235)
Skills in drawing will be explored through a variety of techniques and media.

ART III – DRAWING—2259 **AHS, CHS, PDHS, THS**
GRADE: 11-12 **CREDIT: 1**
PR: Art II-Drawing (2256)
Skills continue with a more extensive study of media, techniques, art history, and application of drawing skills in other art areas.

ART IV – DRAWING—2318 **AHS, CHS, PDHS, THS**
GRADE: 12 **CREDIT: 1**
PR: Art III-Drawing (2259)
Senior portfolio—students will contract with the teacher to plan and develop a portfolio and participate in a program designed for the art major.

ART II – PAINTING—2264 **AHS, PDHS, THS**
GRADE: 10-12 **CREDIT: 1**
PR: Art I (2235)
Skills in painting will be explored through a variety of techniques and media.

ART III – PAINTING—2267 **AHS, PDHS, THS**
GRADE: 11-12 **CREDIT: 1**
PR: Art II-Painting (2264)
Skills continue with a more extensive study of media, techniques, art history, and application of painting skills in other art areas.

ART IV – PAINTING—2319 **AHS, PDHS, THS**
GRADE: 12 **CREDIT: 1**
PR: Art III-Painting (2267)
Senior portfolio—student will contract with the teacher to plan and develop a portfolio and participate in a program designed for the art major.

ART II – CERAMICS—2272 **AHS, CHS, PDHS**
GRADE: 10-12 **CREDIT: 1**
PR: Art I (2235)

This course includes an introduction to ceramics through a study of its history, design, vocabulary, and construction techniques.

ART III – CERAMICS—2275 **AHS, CHS, PDHS**
GRADE: 11-12 **CREDIT: 1**
PR: Art II-Ceramics (2272)
Skills taught in Art II Ceramics will be continued with a more intensive study of ceramic techniques and history.

ART IV – CERAMICS—2320 **AHS, CHS, PDHS**
GRADE: 12 **CREDIT: 1**
PR: Art III-Ceramics (2275)
Senior portfolio—student will contract with the teacher to plan and develop a portfolio and participate in a program designed for the art major.

ART II – JEWELRY—2290 **AHS, PDHS, THS**
GRADE: 10-12 **CREDIT: 1**
PR: Art I (2235)
A variety of jewelry-making techniques and materials will be explored.

ART III – JEWELRY—2293 **AHS, PDHS, THS**
GRADE: 11-12 **CREDIT: 1**
PR: Art II-Jewelry (2290)
The study of jewelry will continue in the second-year course with a more intensive study of fabricated jewelry.

ART II – ELECTRONIC MEDIA—2300 **THS**
GRADE: 10-12 **CREDIT: 1**
PR: Art I (2235)
Students will computers and other digital devices to create original works of art.

AP ART– Studio Art-2D—2310 **AHS, THS**
GRADE: 12 **CREDIT: 1**
PR: Art III (2303)
Course guidelines are based on College Board Advanced Placement Portfolio requirements. Students must complete a significant body of work, demonstrating a range of technique, a concentrated area of interest, and a depth of understanding in visual art. Students should anticipate AP test fee and material expenses. Summer assignments are also required.

ART IV – DRAWING—2318 **AHS, CHS, PDHS**
GRADE: 12 **CREDIT: 1**
PR: Art III-Drawing (2259)
Senior portfolio – students will contract with the teacher to plan and develop a portfolio and participate in a program designed for the art major.

ART IV – PAINTING—2319 **AHS, CHS, PDHS, THS**
GRADE: 12 **CREDIT: 1**
PR: Art III-Painting (2267)
Students will contract with the teacher to plan and develop a portfolio and participate in a program designed for the prospective art major.

ART IV – CERAMICS—2320 **AHS, PDHS**
GRADE: 12 **CREDIT: 1**
PR: Art III-Ceramics (2275)
Students will contract with the teacher to plan and develop a portfolio and participate in a program designed for the prospective art major.

ART IV – JEWELRY—2321 **AHS, PDHS**
GRADE: 12 **CREDIT: 1**
PR: Art III-Jewelry (2293)
Students will contract with the teacher to plan and develop a portfolio and participate in a program designed for the prospective art major.

ART II-PHOTOGRAPHY **THS**
GRADE 10-12 **CREDIT 1**
PR: ART I

DIGITAL ART & ANIMATION—0227/0227c **AMTECH, AHS, CHS, PDHS, THS**
GRADE: 9-12 **CREDIT: 1**
RECOMMENDED PR: Art I (2235)
Digital Art and Animation consists of computer images and animations created with digital imaging software. Digital Art and Animation has applications in many careers, including graphic design, advertising, web design, animation, corporate communications, illustration, character development, script writing, storyboarding, directing, producing, inking, project management, editing, and the magazine, television, film, and game industries. Students in this course will produce various real-world projects and animations. The six strands include creativity and innovation; communication and collaboration; research and information fluency; critical thinking; problem solving, and decision making; digital citizenship; and technology operations and concepts.

PERFORMING ARTS

CHOIR I—2381 **AHS, CHS, PDHS, THS**
GRADE: 9-12 **CREDIT: 1**
PR: None
Each student who signs up for choir will be placed in an ensemble by the choir director. Specific groups will vary from campus to campus and may include Entry level Choir, Pre-Advanced Choir, Advanced Choir, Women's Choir, and Men's Choir. Entry-level choir is primarily for freshman and first-year choir students. Advancement into other choirs will be up to the director, based on a skills assessment examination of each student.

CHOIR II—2382 **AHS, CHS, PDHS, THS**
GRADE: 10-12 **CREDIT: 1**
PR: Choir I
The choral music course is designed to develop and refine music reading skills and to encourage artistic expression through choral singing. Rehearsals focus on choral techniques through proper vocal production. Theory and sight-reading techniques are also emphasized with continued development of the knowledge and skills in musicianship and performance. In order for students to gain an appreciation for different vocal styles, composers, forms, periods and cultures, students will sing literature that ranges from the Renaissance to popular. Placement into the choirs is based on ability and is determined by various performance criteria that is developed by the choral staff. This may include an audition. A student with no prior choir experience may enroll in the program and will be placed in the appropriate group by the director. Students must participate in all rehearsals, performances, and contests.

CHOIR III—2383 **AHS, CHS, PDHS, THS**
GRADE: 11-12 **CREDIT: 1**
PR: Choir III
The choral music course is designed to develop and refine music reading skills and to encourage artistic expression through choral singing. Rehearsals focus on choral techniques through proper vocal production. Theory and sight-reading techniques are also emphasized with continued development of the knowledge and skills in musicianship and performance. In order for students to gain an appreciation for different vocal styles, composers, forms, periods and cultures, students will sing literature that ranges from the Renaissance to popular. Placement into the choirs is based on ability and is determined by various performance criteria that is developed by the choral staff. This may include an audition. A student with no prior choir experience may enroll in the program and will be placed in the appropriate group by the director. Students must participate in all rehearsals, performances, and contests.

CHOIR IV—2384 **AHS, CHS, PDHS, THS**
GRADE: 12 **CREDIT: 1**
PR: Choir III
The choral music course is designed to develop and refine music reading skills and to encourage artistic expression through choral singing. Rehearsals focus on choral techniques through proper vocal production. Theory and sight-reading techniques are also emphasized with continued development of the knowledge and skills in musicianship and performance. In order for students to gain an appreciation for different vocal styles, composers, forms, periods and cultures, students will sing literature that ranges from the Renaissance to popular. Placement into the choirs is based on ability and is determined by various performance criteria that is developed by the choral staff. This may include an audition. A student with no prior choir experience may enroll in the program and will be placed in the appropriate group by the director. Students must participate in all rehearsals, performances, and contests.

SHOW CHOIR I—2466 **AHS, CHS, PDHS, THS**
GRADE: 9-12 **CREDIT: 1**
PR: Current enrollment in choir
The small vocal ensemble is intended for students interested in various periods of music including madrigal and pop music. Public performance is a major goal and students should be prepared to spend additional time in such activities.

SHOW CHOIR II—2469 **AHS, CHS, PDHS, THS**
GRADE: 10-12 **CREDIT: 1**
PR: current enrollment in choir

BAND I—2561 **AHS, CHS, PDHS, THS**
GRADE: 9-12 **CREDIT: 1**
PR: None
Class time is devoted to development of technique on the instrument. Marching techniques, half-time shows, and outdoor performances are the emphasis in the fall. One-half credit may count toward the student's physical education requirement. In the spring, the concert band becomes the emphasis. Concert groups may be determined by audition. Students should be prepared to spend additional time outside of the regular classroom period on practice and performance. Band is a year-long course.

BAND II—2562 **AHS, CHS, PDHS, THS**
GRADE: 10-12 **CREDIT: 1**
PR: Band I (2561)

BAND III—2563 **AHS, CHS, PDHS, THS**
GRADE: 11-12 **CREDIT: 1**
PR: Band II (2562)

BAND IV—2564 **AHS, CHS, PDHS, THS**
GRADE: 12 **CREDIT: 1**
PR: Band III (2563)

JAZZ ENSEMBLE I—2638 **AHS**
GRADE: 9-12 **CREDIT: 1**
PR: Current enrollment in band or orchestra
Jazz Ensemble is offered primarily as an added opportunity for those students who desire an additional course in music that deals mainly with the performance of the many varied styles of jazz and the development of improvisational skills. Public performance is a major emphasis of this class, as is familiarization with jazz styles and literature.

JAZZ ENSEMBLE II—2641 **AHS**
GRADE: 10-12 **CREDIT: 1**
PR: Current enrollment in band or orchestra.

JAZZ ENSEMBLE III—2644 **AHS**
GRADE: 11-12 **CREDIT: 1**
PR: Current enrollment in band or orchestra.

JAZZ ENSEMBLE IV—2647 **AHS**
GRADE: 12 **CREDIT: 1**
PR: Current enrollment in band or orchestra.

ORCHESTRA I—2835 **AHS, CHS, PDHS, THS**
GRADE: 9-12 **CREDIT: 1**
PR: None
Major emphasis is on the continued development of technical skills and musical knowledge through the preparation of music for performance on string instruments. Every effort is made to maintain a well-balanced instrumentation. Students should be prepared to spend additional time outside of the regular classroom period on practice and performance. Concert groups may be determined by audition.
Orchestra is a year-long course.

ORCHESTRA II –2838 **AHS, CHS, PDHS, THS**
GRADE: 10-12 **CREDIT: 1**
PR: Orchestra I (2835)

ORCHESTRA II –2841 **AHS, CHS, PDHS, THS**
GRADE: 11-12 **CREDIT: 1**
PR: Orchestra I (2838)

ORCHESTRA II –2844 **AHS, CHS, PDHS, THS**
GRADE: 12 **CREDIT: 1**
PR: Orchestra I (2841)

DANCE I—2225 **AHS, CHS, PDHS, THS**
GRADE: 9-12 **CREDIT: 1**
PR: None
Students will acquire a comprehensive knowledge of dance as an art form as well as develop an awareness of body movement, anatomy, and fitness while participating in a variety of dance styles.

DANCE II—2326 **AHS, CHS, PDHS, THS**
GRADE: 10-12 **CREDIT: 1**
PR: 2325
Students will further their study and skill acquisition in Dance II. Choreography and performance will be emphasized.

DANCE III—2327 **AHS, CHS, PDHS, THS**
GRADE: 11-12 **CREDIT: 1**
PR: 2326
Students will further their study and skill acquisition in Dance III. Choreography and performance will be emphasized.

DANCE IV—2328 **AHS, CHS, PDHS, THS**
GRADE: 12 **CREDIT: 1**
PR: 2327
Students will further their study and skill acquisition in Dance III. Choreography and performance will be emphasized.

DANCE 1- Performance Ensemble-3726 **AHS, CHS, PDHS, THS**
GRADE: 9-12 **CREDIT: 1**
PR: None
Dance Performance/Ensemble is the campus dance performing company and members are required to participate in shows and competitions, both locally and out of district. Students must commit to additional rehearsals beyond scheduled class time, display the utmost commitment to their dance education, as well as respect for fellow members of the ensemble and campus students and staff. Auditions may be required.

DANCE 2-Performance Ensemble-3727 **AHS, CHS, PDHS, THS**
GRADE: 10-12 **CREDIT: 1**
PR: 3726
Students will further their study and skill acquisition in Dance 1 Performance Ensemble. All requirements noted in Dance 1 Performance Ensemble description will be in effect.

DANCE 3-Performance Ensemble-3728 **AHS, CHS, PDHS, THS**
GRADE: 11-12 **CREDIT: 1**
PR: 3727
Students will further their study and skill acquisition in Dance 2 Performance Ensemble. All requirements noted in Dance 1 Performance Ensemble description will be in effect**.**

DANCE 4-Performance Ensemble-3729 AHS, CHS, PDHS, THS
GRADE: 12 **CREDIT: 1**
PR: 3727
Students will further their study and skill acquisition in Dance 3 Performance Ensemble. All requirements noted in Dance 1 Performance Ensemble description will be in effect.

DANCE 1-PE SUB-3815 **AHS, CHS, PDHS, THS**
GRADE: 9-12 **CREDIT: 1**
PR: None
Students will acquire a comprehensive knowledge of dance as an art form as well as develop an awareness of body movement, anatomy, and fitness while participating in a variety of dance styles and physical education exercises.

THEATRE ARTS I—3021 AHS, CHS, PDHS, THS
GRADE: 9-12 **CREDIT: 1**
PR: None
A survey course introducing the actor to the interpretation of dramatic literature. Basic principles of acting and theatre production are studied and applied in the classroom.

THEATRE ARTS II—3026 **AHS, CHS, PDHS, THS**
GRADE: 10-12 **CREDIT: 1**
PR: Theatre Arts I (3021), audition required
Develops the characteristics of theatre production and acting. Emphasis is placed on theatre production both technical and acting.

THEATRE ARTS III—3034 **AHS, CHS, PDHS, THS**
GRADE: 11-12 **CREDIT: 1**
PR: Theatre Arts II (3026), audition required

Advances acting techniques, theatre history, and directing. Theatre production and musical theatre are emphasized.

THEATRE ARTS IV—3042 **AHS, CHS, PDHS, THS**
GRADE: 12 **CREDIT: 1**
PR: Theatre Arts III (3034), audition required
Advances further the study of theatre history, classic theatre, and acting and directing techniques.

THEATRE PRODUCTION I—3047 **AHS, CHS, PDHS, THS**
GRADE: 9-12 **CREDIT: 1**
PR: Theatre Arts I (3021) audition required
Theatre Production gives the student the opportunity to participate in a major theatre production, a contest play, and become a member of the touring company.

THEATRE PRODUCTION II—3052 **AHS, CHS, PDHS, THS**
GRADE: 10-12 **CREDIT: 1**
PR: Theatre Production I , audition required

THEATRE PRODUCTION III—3057 **AHS, CHS, PDHS, THS**
GRADE: 11-12 **CREDIT: 1**
PR: Theatre Production II, audition required

THEATRE PRODUCTION IV—3062 **AHS, CHS, PDHS, THS**
GRADE: 12 **CREDIT: 1**
PR: Theatre Production III, audition required

TECHNICAL THEATRE I—3067 **AHS, CHS, PDHS, THS**
GRADE: 9-12 **CREDIT: 1**
PR: Theatre Arts I (3021), audition required
Technical Theatre I, II, III, and IV teach advanced concepts of design and construction of stage sets in addition to the techniques of production such as lighting and sound.

TECHNICAL THEATRE II—3072 **AHS, CHS, PDHS, THS**
GRADE: 10-12 **CREDIT: 1**
PR: Technical Theatre I, audition required

TECHNICAL THEATRE III—3073 **AHS, PDHS, THS**
GRADE: 11-12 **CREDIT: 1**
PR: Technical Theatre II, audition required

TECHNICAL THEATRE IV—3074 **AHS, PDHS**
GRADE: 12 **CREDIT: 1**
PR: Technical Theatre III, audition required

JOURNALISM

JOURNALISM I—1921 **AHS, CHS, PDHS, THS**
GRADE: 9-12 **CREDIT: 1**
PR: None
Journalism I is a survey course which is centered on the study of newspaper and yearbook production. Emphasis is based on writing. The students learn to write news stories, sports stories, feature stories and editorials, along with the basic techniques of newspaper design and headline writing. They also study history of journalism, journalism ethics, editing, yearbook copy and yearbook design, word processing and desktop publishing in preparation for staff work.

ADVANCED JOURNALISM–YEARBOOK I—1924 **AHS, CHS, PDHS, THS**
GRADE: 10-12 **CREDIT: 1**
PR: Journalism I (1921) This yearbook production course includes the study of copy writing, captions, headline writing, yearbook layout design, computer use, photography, indexing, using and designing graphics, editing, interviewing, advertising and yearbook sales campaigns. Students will work as a team using organization and research skills to meet deadlines while producing a yearbook.

ADVANCED JOURNALISM–YEARBOOK II—1930 **AHS, CHS, PDHS, THS**
GRADE: 11-12 **CREDIT: 1**
PR: Advanced Journalism I (1924)
An advanced course in yearbook production reserved for editors and second-year staff members.

ADVANCED JOURNALISM YEARBOOK III—1936 **AHS, CHS, PDHS, THS**
GRADE: 12 **CREDIT: 1**
PR: Advanced Journalism II (1930)
An advanced course in yearbook production reserved for editors and third-year staff members.

ADVANCED JOURNALISM NEWSPAPER I—1927 **AHS, CHS, PDHS, THS**
GRADE: 10-12 **CREDIT: 1**
PR: Journalism I (1921)
Elements and processes used in producing a school newspaper will be the emphasis of this course. Practical experience will include in-depth reporting, advertising campaign, layout design, computer use, photography, captions and headline writing, using and designing graphics, interviewing, editing and proofreading copy of pages and entire issues. Students will work as a team using organizational and research skills to meet deadlines while producing a newspaper.

ADVANCED JOURNALISM NEWSPAPER II—1933 **AHS, CHS, PDHS, THS**
GRADE: 11-12 **CREDIT: 1**
PR: Advanced Journalism I (1927)
An advanced course in newspaper production reserved for editors and second-year staff members.

ADVANCED JOURNALISM NEWSPAPER III—1939 **AHS, CHS, THS**
GRADE: 12 **CREDIT: 1**
PR: Advanced Journalism II (1933)
An advanced course in newspaper production reserved for editors and third-year staff members.

INDEPENDENT STUDY IN JOURNALISM—1942 **AHS, CHS, THS**
GRADE: 11-12 **CREDIT: 1**
PR: **None**
Students will explore written and spoken communication in a variety of forms. Students will explore issues surrounding the publication of newspapers and yearbooks, including libel, sensationalism, constitutional freedoms of expression, including, but not limited to written, spoken and photographic media, and the obligation to respond responsibly to journalistic challenges facing student journalists.

SPEECH

PROFESSIONAL COMMUNICATIONS—0221 **AHS, CHS, PDHS, THS**
GRADE: 9-12 **CREDIT: .5**
PR: None
This course focuses on developing students' abilities in communication process, verbal and nonverbal messages, interpersonal and group communication, listening, critical thinking, problem solving and improving communication skills in professional and social settings. (This course meets the speech requirement for graduation).

DEBATE I—2040 **AHS, CHS, THS**
GRADE: 9-12 **CREDIT: 1**
PR: None
Debate I, II, and III provide students the opportunity to learn the specific formats and forum for debate, processes of logical and critical thinking, research, and written briefings for affirmative and negative arguments in outline form. The student will also learn resolution interpretation, affirmation and negative case construction, listening skills for questioning techniques, listening accuracy, witness obligations, and carry through in argumentation. The student will demonstrate the accrued abilities of reading, writing, listening, speaking, and analyzing through competitive tournament debating. Tournament competition is required. (This course meets the speech requirement for graduation).

DEBATE II—2043 **AHS, CHS THS**
GRADE: 10-12 **CREDIT: 1**
PR: Debate I (2040) See description under Debate I.

DEBATE III—2046 **AHS, THS**
GRADE: 11-12 **CREDIT: 1**
PR: Debate II (2043) See description under Debate I.

ORAL INTERPRETATION I—2051 **THS**
GRADE: 9-12 **CREDIT: 1**
PR: None
Oral Interpretation I, II, and III involve the study and application of principles of interpretation. Students will be involved in the process of interpreting literary intent, and performance techniques. Tournament competition is required at all levels.

ORAL INTERPRETATION II—2054 **THS**
GRADE: 10-12 **CREDIT: 1**
PR: Oral Interpretation I (2051) See description under Oral Interpretation I.

ORAL INTERPRETATION III—2057 **THS**
GRADE: 11-12 **CREDIT: .5, 1**
PR: Oral Interpretation II (2054) See description under Oral Interpretation I.

JUNIOR RESERVE OFFICER'S TRAINING CORPS

AFJROTC, AEROSPACE SCIENCE I, EXPLORING SPACE-THE HIGHER FRONTIER—3921 **PDHS**
GRADE: 9-12 **CREDIT: .5, 1**
PR: None
This course provides students with the latest information on exploring space and an introduction to cybersecurity and technology. It begins with early astronomy and the basic interest in the universe from the Greeks through the Renaissance and Enlightenment ages. Students will be provided an in-depth view of the solar system, including Earth, the Sun, the Moon, and planets. The course also discusses the history of space travel and more modern space probes and robotics. Students will examine the effects of space on the human body. The course also investigates the history of rockets, launch vehicles, and the coordinated systems required for a successful launch into space. Finally, the course will offer a cybersecurity chapter that outlines the importance of cybersecurity in space and in daily life.

AFJROTC, AEROSPACE SCIENCE II, THE SCIENCE OF FLIGHT—3926 **PDHS**
GRADE: 10-12 **CREDIT: .5, 1**
PR: 3921
Science of Flight teaches atmospheric science and aviation weather, flight physiology, simulators and principles of flight, basic aerodynamics, aircraft engines, instrumentation, flight controls/performance, and aerospace vehicle categories. Leadership Education II focuses on written and verbal communication skills, individual and group behavior, human motivation, personal responsibility and leadership concepts.

AFJROTC, AEROSPACE SCIENCE III, THE EXPLORATION OF SPACE—3931 **PDHS**
GRADE: 11-12 **Credit: .5 , 1**
PR: 3926
Students will study the relationship of the Sun and its planetary system, surviving and living in space, and the physiological results of manned space flight. Leadership Education III introduces cadets to basic management skills.

AFJROTC AEROSPACE SCIENCE IV, AEROSPACE SCIENCE OPTIONS—3936 **PDHS**
GRADE: 12 **CREDIT: .5, 1**
PR: 3931
Management of Cadet Corps is the primary option which gives the experienced cadet the opportunity to put the theories of previous leadership courses into practice. Another semester option is Survival program. Leadership Education IV objectives stress life after high school.

MCJROTC, LEADERSHIP EDUCATION I—3921 **CHS**
GRADE: 9-12 **CREDIT: 1**
PR: None
Leadership Education I introduces the cadet to effective study skills, Marine Corps history, military customs courtesies, traditions, proper uniform wear, basic leadership and team building skills. Cadets are in marksmanship and weapons safety, first aid, fellowship, drill, color guard and physical fitness teams.

MCJROTC, LEADERSHIP EDUCATION II—3926 **CHS**
GRADE: 10-12 **CREDIT: .5 , 1**
PR: 3921
Leadership Education II focuses on written and verbal communication skills, emphasizing intermediate public speaking, individual and group behavior, human motivation and relations, personal responsibility, group

dynamics, physical fitness and leadership concepts. This course includes field trips to related facilities: Marine Reserve Center, air bases, or civilian facilities.

MCJROTC, LEADERSHIP EDUCATION III—3931 **CHS**
GRADE: 11-12 **CREDIT: .5, 1**
PR: 3926
Leadership Education III introduces the cadet to basic management skills and techniques of military instruction. The cadet will demonstrate/apply leadership qualities and fundamentals to successful dealing with conflicts and differences in a group. The cadet will learn counseling skills in dealing with subordinates.

MCJROTC, LEADERSHIP EDUCATION IV—3936 **CHS**
GRADE: 12 **CREDIT: .5 ,1**
PR: 3931
Management of the Cadet Battalion is the primary challenge which gives the experienced cadet the opportunity to put the theories and concepts of previous leadership courses into practical application: planning, organizing, coordinating, directing and controlling. Communication, managerial, and organizational skills are put to the test in a fun, yet responsible environment.

NJROTC, NAVAL SCIENCE I—3921 **THS**
GRADE: 9-12 **CREDIT: .5 , 1**
PR: None
Cadets are introduced to the military uniform and military drill, team building concepts, proper flag etiquette, and military and civilian customs and courtesies; a basic understanding of the mission, goals, and opportunities available to members of the NJROTC program; the basic principals of leadership combined with practical experience; an understanding of our nation, our values, traditions, heritage, and respect for our laws as informed, responsible citizens; and the ships and aircraft of the U.S. Navy.

NJROTC, NAVAL SCIENCE II—3926 **THS**
GRADE: 10-12 **CREDIT: .5, 1**
PR: 3921
Cadets are introduced to new leadership concepts that consider behavioral influences. They are given information on both officer and enlisted programs along with career planning options. Maritime
History and Nautical Sciences include Maritime Geography, Oceanography, Meteorology, Astronomy, and basic Maritime Physical Science.

NJROTC, NAVAL SCIENCE III-3931 **THS**
GRADE:11-12 **CREDIT: .5, 1**
PR: 3926
Cadets learn the military justice system, international and maritime law, sea power, national security, naval operations, communications, and intelligence. Cadets lead classroom seminars on naval history and future challenges to our country.

NJROTC, NAVAL SCIENCE IV—3936 **THS**
GRADE: 12 **CREDIT: .5 , 1**
PR: 3931
Cadets lead the NJROTC Unit as officers and work with Naval Science instructors to plan and execute inspections, competitions, and civic events. Cadets participate in comprehensive discussions regarding Leadership and learn how to maximize their abilities.

OTHER ELECTIVES

PEER ASSISTANCE & LEADERSHIP I (PALS I)—6030 **AHS**
GRADE: 11-12 **CREDIT: 1**
PR: Application process PALs are trained in listening and communication skills, basic principles of human behavior, peer tutoring, decision making, problem solving, and in understanding of community resources. Once trained, PALs are assigned to elementary and middle schools to provide assistance to students during the class meeting time.

PEER ASSISTANCE & LEADERSHIP II (PALS II)—6031 **AHS**
GRADE: 12 **CREDIT: 1**
PR: Application process PALs are trained in listening and communication skills, basic principles of human behavior, peer tutoring, decision making, problem solving, and in understanding of community resources. Once trained, PALs are assigned to elementary and middle schools to provide assistance to students during the class meeting time.

Welcome to CTE

Career and Technical Education offers many different pathways for students to explore throughout their high school experience. CTE programs provide rigorous instruction through hands-on learning, links to business and industry in the region through work-based learning experiences, and prepares students for highly skilled, high wage, in-demand careers. Through a sequence of courses within an occupational pathway, called Programs of Study, students gain knowledge and skills that prepare them for future college and career success. Students have the opportunity to earn industry-based certifications and/or college credit that provides a firm foundation with which to build upon after graduation. This guide was designed to help you learn about the CTE opportunities available in AISD that will better prepare you for future success beyond high school.

AmTech CAREER ACADEMY

Opening its doors in August, 2021, AmTech Career Academy is a state-of-the-art facility that serves students in AISD in grades 9-12. With nine schools that offer 28 CTE pathway options (programs of study), students will learn from faculty experts, have opportunities to work alongside peers from high schools across the district who are diverse yet share similar interests and goals, which encourages collaboration, teamwork and problem-solving.

Many of the AmTech pathways have introductory courses that are offered at the home campuses and then culminate at the 10th- 12th grade levels where students build upon the knowledge and skills gained each year. At the senior level, students within a program of study have the opportunity to participate in work-based learning experiences such as internships and clinical rotations through Practicum courses where students work directly with business and industry partners both at AmTech and in local businesses in the Amarillo area while earning industry certifications and college credit.

Programs offered at AmTech are included in the program of study sheets on the following pages. AmTech course offerings are noted in **blue** throughout the guide. Students may visit with their school counselor to request more information or contact AmTech staff at 806-326-1950.

CTE Courses at Capacity

Course availability may be limited in some CTE courses due to safety, available staff, and/or space. In some cases where there are more student requests than can be accommodated at the time of pre-registration, a Student Course Interest Packet may be provided by campus staff. A date will be set for the deadline of the Student Course Interest Packet and communicated to all interested parties.

College Credit Opportunities

There are two ways to earn college credit through CTE programs, Articulated Credit and Dual Credit.

Articulated Credit

- Articulated Credit is credit earned in a high school CTE course that aligns with an equivalent college course. Each year, Amarillo ISD and Amarillo College faculty review and revise Articulated course offerings.

Dual Credit

- Dual Credit is a measure of the College, Career, and Military Readiness (CCMR) component of the state A-F Accountability System by which CTE may contribute to the campus and district ratings. Amarillo College's Dual Credit program offers qualified high school students an opportunity to earn college credit while completing high school requirements. Dual Credit offerings within CTE programs of study are evaluated on an annual basis.

CTE Courses for Academic Credit

Career and Technical (CTE) Courses for Academic Credit			
Effective 2/3/2021			
Course	Credit Satisfied	TAC Chapter 130 & 127 Career Clusters	Program(s) of study in which course appears
Business English	English	§130.135, Business Management and Administration	N/A
Applied Mathematics for Technical Professionals	Mathematics	§127.13, Career Development	N/A
Financial Mathematics	Mathematics	§130.180, Finance	Accounting & Financial Services
Mathematics for Medical Professionals	Mathematics	§130.229, Health Science	Health Informatics
Robotics II	Mathematics	§130.409, STEM	Manufacturing
AP Computer Science A	Mathematics	§130.409, STEM	Programming and Software Development, Cybersecurity
Advanced Animal Science	Science	§130.10, Agriculture, Food, and Natural Resources	Animal Science
Anatomy and Physiology	Science	§130.224, Health Science	Exercise Science and Wellness, Healthcare Diagnostics, Healthcare
Engineering Science	Science	§130.414, STEM	Engineering
Forensic Science	Science	§130.339, Law, Public Safety, Corrections, and Security	Law Enforcement
Principles of Technology	Science	§130.404, STEM	N/A

CTE Indicators

CTE Concentrators - A student completing and passing two or more 19 TAC Chapter 126 (C), 127 (B), or 130 CTE courses for at least two credits within the same program of study and not a Completer in the same program of study.

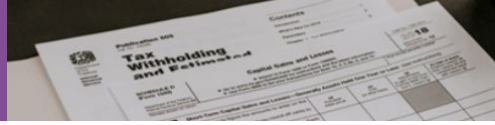
CTE Completers – A students completing and passing three or more 19 TAC Chapter 126 (C), 127 (B), or 130 CTE courses for four or more credits, including one level 3 or level 4 course, within the same program of study.

Program of Study	Graduation Endorsement	Campus	Industry Based Certifications and/or Dual/Articulated College Credit Opportunities
Accounting & Financial Services	Business and Industry	AMTECH, AHS, PDHS,THS	Quickbooks Certified User / Articulated Credit
Advanced Manufacturing and Machinery Mechanics (Robotics)	Business and Industry	AMTECH	
Animal Science (Vet Tech)	Business and Industry	AMTECH	Certified Veterinary Assistant / Feedyard Technician Certifications
Applied Agricultural Engineering	Business and Industry	CHS, THS	American Welding Society-D9.1 / Feedyard Technician Certifications / Articulated Credit
Architectural Design	Business and Industry	AMTECH, AHS, CHS, THS	Autodesk Certified User-Revits / AutoCAD / Fusion 360 Certifications / Articulated Credit
Automotive Technology (Auto Tech and Collision)	Business and Industry	AMTECH	ASE Student Certifications / Articulated Credit / Dual Credit / Amarillo College Level 1 Certificate
Business Management	Business and Industry	AHS, CHS, PDHS, THS	Microsoft Office Specialist: Word/Excel Certifications / Articulated Credit
Carpentry	Business and Industry	AMTECH	NCCER Certification
Construction Management	Business and Industry	PDHS	
Cosmetology	Public Services	Clarendon College - Amarillo Campus	TDLR Cosmetologist / Dual Credit
Culinary Arts	Business and Industry	AMTECH, AHS, CHS,PDHS, THS	ServSafe Food Manager Certification / Articulated Credit
Cybersecurity	STEM	AMTECH	CompTIA A+ / CompTIA Network + / CompTIA Security + Certifications
Digital Communications (Audio/Video Production)	Business and Industry	AMTECH, CHS, PDHS, THS	Adobe Certified Professional - Photoshop / Premier Pro Certifications
Electrical Technology	Business and Industry	AMTECH	NCCER Certification / Articulated Credit
Engineering - Project Lead the Way	STEM	AMTECH	Autodesk Certified User-Inventor / Revits / Fusion 360 Certifications / Articulated Credit
Entrepreneurship	Business and Industry	AMTECH	Entrepreneurship and Small Business Certification / Articulated Credit
Graphic Design & Multimedia Arts (Animation/Commercial Photography/Graphic Design)	Business and Industry	AMTECH, AHS, CHS, PDHS, THS	Adobe Certified Professional - Photoshop / Illustrator Certifications / Articulated Credit
Healthcare Therapeutic (CMA, PCT, EKG, EMT, Dental, Pharmacy)	Public Services	AMTECH	Certified Medical Assistant / Certified Patient Care Technician / Certified EKG Technician / Certified EMT Technician / Registered Dental Assistant / Pharmacy Technician Certifications / Articulated Credit
Health Science - General	Public Services	AMTECH, CHS, PDHS	Articulated Credit
HVAC Technology	Business and Industry	AMTECH	Refrigerant Handling (EPA 608)
Information Technology	Business and Industry	AMTECH	CompTIA IT Fundamentals / CompTIA A+ Certifications

Program of Study	Graduation Endorsement	Campus	Industry Based Certifications and/or Dual/Articulated College Credit Opportunities
Law Enforcement	Public Services	AMTECH, AHS, CHS, PDHS, THS	Non-Commissioned Security Officer Level II / IAED Emergency Telecommunicator Certifications
Legal Studies	Public Services	AMTECH	
Manufacturing Technology (Machining)	Business and Industry	AMTECH	National Institute for Metalworking Skills Certifications / Articulated Credit / Dual Credit / Amarillo College Level 1 Certificate
Marketing & Sales	Business and Industry	AMTECH	Stukent Social Media Marketing Certification / Articulated Credit
Plant Science	Business and Industry	CHS, PDHS, THS	Principles of Floral Design / TSFA Level I/II Floral Certifications
Plumbing Technology	Business and Industry	AMTECH	NCCER Certification
Teaching and Training	Public Services	AHS, CHS, PDHS, THS	Educational Aide Certification / Articulated Credit
Welding Technology	Business and Industry	AMTECH	American Welding Society D1.1 Structural Steel / D9.1 Sheet Metal Welding Certifications / Articulated Credit / Amarillo College Level 1 Certificate

Accounting and Financial Services

Statewide Program of Study



The Accounting and Financial Services program of study teaches CTE learners how to examine, analyze, and interpret financial records. Through this program of study, students will learn the skills necessary to perform financial services, prepare financial statements, interpret accounting records, give advice, understand transactions in the security industry, study the stock market or audit and evaluate statements prepared by others. This program of study will also introduce students to mathematical modeling tools.

Secondary Courses for High School Credit

Freshman
- Principles of Business, Marketing, and Finance and/or
- Business Information Management I

Sophomore
- Accounting I

Junior
- Securities and Investments

Senior
- Practicum in Business Management

Complimentary course outside of this program of study
- Business English
- Entrepreneurship *(home campus or AmTech)*

Postsecondary Opportunities

Associates Degrees
- Real Estate
- Financial Planning and Services
- Certified Income Specialist

Bachelor's Degrees
- Accounting
- Financial, General
- Financial Planning and Services
- Certified Income Specialist

Master's, Doctoral, and Professional Degrees
- Financial Accounting
- Business Administration
- Financial Planning

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities	Work-Based Learning Activities
• Participate in VITA, Education Credit Union or DECA	• Intern with Educational Credit Union • Intern with a local accounting or financial firm

Industry-Based Certifications

- Accounting - Basic
- Accounting Foundations
- Intuit QuickBooks Certified User
- VITA - Volunteer Income Tax Assistance/Tax Counseling Certification: Basic

- Microsoft Office Specialist-Excel*

*IBC sunsetting 8/31/24

Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Accountants and Auditors	$71,469	14,436	22%
Loan Officers	$68,598	2,419	19%
Personal Financial Advisors	$86,965	1,861	52%
Administrative service Managers	$96,138	2,277	21%
Insurance Underwriters	$66,206	594	14%

Successful completion of the Accounting and Financial Services program of study will fulfill requirements of the Business and Industry endorsement. Revised – August 2022

TEA Texas Education Agency

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.

Accounting and Financial Services
Course Information

Level 1

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Principles of Business, Marketing, and Finance	13011200 (1 credit)	None	9-11
Business Information Management I	13011400 (1 credit)	None	9-12

Level 2

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Accounting I	13016600 (1 credit)	Recommended Prerequisite: Principles of Business, Marketing, and Finance and/or Business Information Management I	10-12

Level 4

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Securities and Investments	13016400 (1 credit)	Recommended Prerequisites: Principles of Business, Marketing, and Finance and/or Business Information Management I and Accounting I	10-12
Practicum in Business Management	13012200 (2 credits)	Recommended Prerequisites: Touch Systems and Business Management or Business Information Management II	11-12

FOR ADDITIONAL INFORMATION ON THE ACCOUNTING AND FINANCIAL SERVICES PROGRAM OF STUDY,
PLEASE CONTACT YOUR LOCAL COUNSELOR OR VISIT
HTTPS://AMTECH.AMAISD.ORG

Principles of Business, Marketing, and Finance **Course #0262**
Grade Placement: 9-11, Credit: 1 **AHS, CHS, PDHS, THS**
Prerequisite: None.
In Principles of Business, Marketing, and Finance, students gain knowledge and skills in economies and private enterprise systems, the impact of global business, the marketing of goods and services, advertising, and product pricing. Students analyze the sales process and financial management principles. This course allows students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings in business, marketing, and finance.

Business Information Management I (BIM I) **Course #0252**
Grade Placement: 9–12, Credit: 1 **AHS, CHS, PDHS, THS**
Prerequisite: None.
In Business Information Management I, students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and make a successful transition to the workforce and postsecondary education. Students apply technical skills to address business applications of emerging technologies, create word- processing documents, develop a spreadsheet, formulate a database, and make an electronic presentation using appropriate software.

Accounting I **Course #0354**
Grade Placement: 10–12, Credit: 1
Recommended Prerequisite: Principles of Business, Marketing, and Finance and/or Business Information Management I.
In Accounting I, students will 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 will reflect on this knowledge as they engage in the process of recording, classifying, summarizing, analyzing, and communicating accounting information. Students will formulate and interpret financial information for use in management decision making. Accounting includes such activities as bookkeeping, systems design, analysis, and interpretation of accounting information. *NOTE: This course can lead to articulated college credit.*

Securities and Investments **Course #0352c**
Grade Placement: 10-12, Credit: 1 **AMTECH**
Recommended Prerequisite: Principles of Business, Marketing, and Finance and/or Business Information Management I and Accounting I
In Securities and Investments, students will understand the laws and regulations to manage business operations and transactions in the securities industry. Students will focus on planning, services for financial and investment planning, banking, insurance, and business financial management.

Practicum in Business Management **Course #0260c**
Grade Placement: 11-12, Credits: 2 **AMTECH**
Recommended Prerequisites: Touch Systems and Business Management or Business Information Management II.
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 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.

Advanced Manufacturing & Machinery Mechanics (Robotics)

Statewide Program of Study

The Advanced Manufacturing and Machinery Mechanics program of study focuses on the assembly, operation, maintenance, and repair of electromechanical equipment or devices. CTE learners may work in a variety of mechanical fields, gaining knowledge and experience in robotics, refinery and pipeline systems, deep ocean exploration, or hazardous waste removal. CTE concentrators may work in a variety of fields of engineering.

Secondary Courses for High School Credit

Freshman
- Robotics I

Sophomore
- Programmable Logic Controller I

Junior
- Robotics II *(math credit)*

Senior
- Practicum in Manufacturing

Complimentary course outside of this program of study
- Business English

Postsecondary Opportunities

Associates Degrees
- Electromechanical Engineering/Technology
- Certified Quality Technician
- Industrial Mechanics and Maintenance Technology

Bachelor's Degrees
- Electrical Engineering
- Industrial Engineering
- Mechanical Engineering

Master's, Doctoral, and Professional Degrees
- Electrical Engineering
- Industrial Engineering
- Mechanical Engineering

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities	Work-Based Learning Activities
• Participate in SkillsUSA and local STEM events	• Work at a local business or industry apprenticeship • Join the American Welding Society

Industry-Based Certifications

Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Electro-Mechanical Assemblers	$30,160	951	9%
Electro-Mechanical Technicians	$56,555	127	9%
Industrial Machinery Mechanics	$49,816	3,788	27%

Successful completion of the Advanced Manufacturing and Machinery Mechanics program of study will fulfill requirements of the Business and Industry or STEM endorsement if the math and science requirements are met. Revised – August 2022

TEA Texas Education Agency

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 manufacturing/process engineering.

Advanced Manufacturing and Machinery Mechanics Course Information

Level 2

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Robotics I	13037000 (1 credit)	None	9-10
Programmable Logic Controller I	N1303689 (1 credit)	Recommended Prerequisite: Robotics I	10-12

Level 3

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Robotics II *(math credit)*	13037050 (1 credit)	Robotics I	10-12

Level 4

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Practicum in Manufacturing	13033000 (2 credits)	Recommended Prerequisite: Completion of two CTE courses within this program of study	12

FOR ADDITIONAL INFORMATION ON THE ADVANCED MANUFACTURING AND MACHINERY MECHANICS PROGRAM OF STUDY, PLEASE CONTACT YOUR LOCAL COUNSELOR OR VISIT
https://www.amaisd.org/488361_3

Robotics I **Course #0808c**
Grade Placement: 9-10, Credit: 1 **AMTECH**
Recommended Prerequisite: None.
In Robotics I, students will transfer academic skills to component designs in a project- based environment through implementation of the design process. Students will build prototypes or use simulation software to test their designs. Additionally, students will explore career opportunities, employer expectations, and educational needs in the robotic and automation industry.

Programmable Logic Controller I **Course #0830c**
Grade Placement: 10-12, Credit: 1 **AMTECH**
Recommended Prerequisite: Robotics I.
This course is designed to introduce students to the function and operation of Programmable Logic Controllers (PLC) through academic and applied instruction. Students will be introduced to relevant terminology, the components that make up a PLC, how PLC communicates with external components and other concepts relating to the use of PLC's in the manufacturing industry. Students will participate in structured, applied learning exercises taken from existing PLC applications. Students will also learn how to read ladder logic diagrams and ultimately write their first program. The central focus of this course is for students to gain an understanding of how programmable logic controllers work and how they are used in automated industries.

Robotics II **Course #0824c**
Grade Placement: 10–12, Credit: 1 **AMTECH**
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.
NOTE: This course satisfies a math credit for graduation.

Practicum in Manufacturing **Course #0708c**
Grade Placement: 12, Credits: 2 **AMTECH**
Recommended Prerequisite: Completion of two CTE courses within this program of study.
The Practicum in Manufacturing course 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. The Extended Practicum in Manufacturing course 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.

Animal Science

Statewide Program of Study

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

Secondary Courses for High School Credit

Freshman
- Principles of Agriculture, Food, and Natural Resources

Sophomore
- Small Animal Management
- Equine Science

Junior
- Advanced Animal Science *(science credit)*
- Veterinary Medical Applications

Senior
- Practicum in Agriculture, Food, and Natural Resources

Complimentary course outside of this program of study
- Business English
- Food Technology and Safety

Postsecondary Opportunities

Associates Degrees
- Food Science and Technology
- Veterinary Studies
- Biotechnology Laboratory Technician
- Biology Technician

Bachelor's Degrees
- Animal Sciences
- Agriculture
- Biology
- Zoology/ Animal Biology

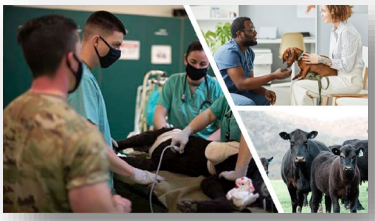
Master's, Doctoral, and Professional Degrees
- Genetics
- Veterinary Medicine
- Biological and Biomedical Sciences

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities	Work-Based Learning Activities
• Participate in Texas FFA	• Compete in an Agri-Science Fair 4H • Volunteer at a local farm or with a veterinarian • Participate in an FFA supervised agriculture experience

Industry-Based Certifications

- Certified Veterinary Assistant, Level 1
- Feedyard Technician in Cattle Care and Handling



Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Animal Breeders	$39,139	28	9%
Animal Scientists	$57,533	22	12%
Medical Scientists	$63,898	435	27%
Veterinarians	$93,496	294	24%
Zoologists and Wildlife Biologists	$67,309	45	32%

Successful completion of the Animal Science program of study will fulfill requirements of a Business and Industry endorsement or STEM endorsement if the math and science requirements are met. Revised – August 2022

TEA Texas Education Agency

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 a diverse spectrum of occupations, ranging from farmer, rancher, and veterinarian to geologist, land conservationist, and florist. It also includes non-traditional agricultural occupations like wind energy, solar energy, and oil and gas production.

Animal Science
Course Information

Level 1

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Principles of Agriculture, Food, and Natural Resources	13000200 (1 credit)	None	9-12

Level 2

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Small Animal Management	13000400 (0.5 credit)	Recommended Prerequisite: Principles of Agriculture, Food, and Natural Resources	10-12
Equine Science	13000500 (0.5 credit)	Recommended Prerequisite: Principles of Agriculture, Food, and Natural Resources	10-12

Level 4

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Advanced Animal Science *(science credit)*	13000700 (1 credit)	Biology and Chemistry or IPC; Algebra I and Geometry; and either Small Animal Management, Equine Science, or Livestock Production	11-12
Veterinary Medical Applications	13000600 (1 credit)	Equine Science, Small Animal Management, or Livestock Production	11-12
Practicum in Agriculture, Food, and Natural Resources	13002500 (2 credits)	Recommended Prerequisite: Completion of two courses with this program of study	11-12

FOR ADDITIONAL INFORMATION ON THE ANIMAL SCIENCE PROGRAM OF STUDY,
PLEASE CONTACT YOUR LOCAL COUNSELOR OR VISIT
HTTPS://AMTECH.AMAISD.ORG

Animal Science
Course Information

Principles of Agriculture, Food, and Natural Resources **Course #0100c**
Grade Placement: 9–12, Credit: 1 **AMTECH**
Prerequisite: None.
Principles of Agriculture is a foundation level course engaging students in hands-on laboratories and activities with a focus on animal science careers.

Small Animal Management **Course #0102c**
Grade Placement: 10–12, Credit: .5 **AMTECH**
Prerequisite: None.
Recommended Prerequisite: Principles of Agriculture, Food, and Natural Resources.
In Small Animal Management, students will acquire knowledge and skills related to small animals and the small animal management industry. Small Animal Management may address topics related to small mammals such as dogs and cats, amphibians, reptiles, and birds.

Equine Science **Course #0103c**
Grade Placement: 10–12, Credit: .5 **AMTECH**
Prerequisite: None.
Recommended Prerequisite: Principles of Agriculture, Food, and Natural Resources.
In Equine Science, students will acquire knowledge and skills related to equine animal systems and the equine industry. Equine Science may address topics related to horses, donkeys, and mules.

Advanced Animal Science **Course #0105c**
Grade Placement: 11–12, Credit: 1 **AMTECH**
Prerequisites: Biology and Chemistry or IPC; Algebra I and Geometry; Small Animal Management, Equine Science, or Livestock Production.
Advanced Animal Science examines the interrelatedness of human, scientific, and technological dimensions of livestock production. Instruction is designed to allow for the application of scientific and technological aspects of animal science through field and laboratory experiences. *Note: This course satisfies a science credit requirement for graduation.*

Veterinary Medical Applications **Course #0104c**
Grade Placement: 11–12, Credit: 1 **AMTECH**
Prerequisites: Equine Science, Small Animal Management or Livestock Production.
Veterinary Medical Applications covers topics relating to veterinary practices, including practices for large and small animal species.

Practicum in Agriculture, Food, and Natural Resources **Course #0123c**
Grade Placement: 11-12, Credits: 2 **AMTECH**
Recommended Prerequisites: Completion of two courses within this program of study.
Practicum in Agriculture, Food, and Natural Resources 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. The practicum course is a paid or unpaid capstone experience for students participating in a coherent sequence of career and technical education courses in the Agriculture, Food, and Natural Resources Career Cluster. ***In order to sit for certification, students must be with a Certified Veterinarian during Practicum.***

Applied Agricultural Engineering

Statewide Program of Study

The Applied Agricultural Engineering program of study explores the occupations and educational opportunities associated with applying knowledge of engineering technology and biological science to agricultural problems concerned with power and machinery, electrification, structures, soil and water conservation, and processing agricultural products. This program of study may also include exploration into diagnosing, repairing, or overhauling farm machinery and vehicles, such as tractors, harvesters, dairy equipment, and irrigation systems.

Secondary Courses for High School Credit

Freshman
- Principles of Agriculture, Food, and Natural Resources

Sophomore
- Agricultural Mechanics and Metal Technologies

Junior
- Agricultural Equipment Design and Fabrication

Senior
- Practicum in Agriculture, Food, and Natural Resources

Postsecondary Opportunities

Associates Degrees
- Heavy Equipment Maintenance Technology/ Technician
- Agricultural Mechanization, General
- Small Engine Mechanics and Repair Technology/ Technician
- Welding Technology/ Welder

Bachelor's Degrees
- Agricultural Engineering
- Agricultural Mechanization, General

Master's, Doctoral, and Professional Degrees
- Agricultural Engineering
- Agricultural Mechanization, Genera

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities	Work-Based Learning Activities
• Tour a farm products or machinery plant • Participate in Texas FFA	• Earn a welding certification • Intern at a farm products or machinery plant • Participate in an FFA supervised agriculture experience

Industry-Based Certifications

- AWS D9.1 Sheet Metal Welding
- Feedyard Technician in Machinery Operation, Repair and Maintenance

Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Outdoor Power Equipment and Other Small Engine Mechanics	$32,406	366	16%
Welders	$41,350	6171	9%
Farm Equipment Mechanics and Service Technicians	$39,915	304	17%
Mobile Heavy Equipment Mechanics	$47,299	1627	16%
Agricultural Engineers	$64,792	9	13%

Successful completion of the Applied Agricultural Engineering program of study will fulfill requirements of a Business and Industry endorsement or STEM endorsement if the math and science requirements are met.
Revised – August 2022

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 a diverse spectrum of occupations, ranging from farmer, rancher, and veterinarian to geologist, land conservationist, and florist. It also includes non-traditional agricultural occupations like wind energy, solar energy, and oil and gas production.

Applied Agricultural Engineering
Course Information

Level 1

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Principles of Agriculture, Food, and Natural Resources	13000200 (1 credit)	None	9-12

Level 2

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Agricultural Mechanics and Metal Technologies	13002200 (1 credit)	None	10-12

Level 4

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Agricultural Equipment Design and Fabrication	13002350 (1 credit)	Recommended Prerequisite: Agricultural Mechanics and Metal Technologies	11-12
Practicum in Agriculture, Food, and Natural Resources	13002500 (2 credits)	Recommended Prerequisite: Completion of two courses within this program of study	11-12

FOR ADDITIONAL INFORMATION ON THE APPLIED AGRICUTURAL ENGINEERING PROGRAM OF STUDY,
PLEASE CONTACT YOUR LOCAL COUNSELOR OR VISIT
https://www.amaisd.org/488361_3

Applied Agricultural Engineering
Course Information

Principles of Agriculture, Food, and Natural Resources **Course #0100**
Grade Placement: 9–12, Credit: 1 **CHS, THS**
Prerequisite: None.
Principles of Agriculture, Food, and Natural Resources will allow students to develop knowledge and skills regarding career and educational opportunities, personal development, globalization, industry standards, details, practices, and expectations.

Agricultural Mechanics and Metal Technologies **Course #0120**
Grade Placement: 10–12, Credit: 1 **CHS, THS**
Prerequisite: None.
Agricultural Mechanics and Metal Technologies is designed to develop an understanding of agricultural mechanics as it relates to safety and skills in tool operation, electrical wiring, plumbing, carpentry, fencing, concrete, and metal working techniques. To prepare for careers in agricultural power, structural, and technical systems, students must attain academic skills and knowledge; acquire technical knowledge and skills related to power, structural, and technical agricultural systems and the industry; and develop knowledge and skills regarding career opportunities, entry requirements, industry certifications, and industry expectations.

Agricultural Equipment Design and Fabrication **Course #0127**
Grade Placement: 11–12, Credit: 1 **CHS, THS**
Recommended Prerequisites: Agricultural Mechanics and Metal Technologies.
In Agricultural Equipment Design and Fabrication, students will acquire knowledge and skills related to the design and fabrication of agricultural equipment.

Practicum in Agriculture, Food, and Natural Resources **Course #0123**
Grade Placement: 11-12, Credits: 2 **CHS, THS**
Recommended Prerequisites: Completion of two courses within this program of study.
Practicum in Agriculture, Food, and Natural Resources 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. The practicum course is a paid or unpaid capstone experience for students participating in a coherent sequence of career and technical education courses in the Agriculture, Food, and Natural Resources Career Cluster.

Architectural Design

Statewide Program of Study

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

Secondary Courses for High School Credit

Freshman
- Principles of Architecture

Sophomore
- Architectural Design I *(home campus or AmTech)*

Junior
- Architectural Design II

Senior
- Practicum in Architectural Design

Complimentary course outside of this program of study
- Business English

Postsecondary Opportunities

Associates Degrees
- Architecture
- Interior Design
- Civil Engineering, General
- Geographic Information Science and Cartography

Bachelor's Degrees
- Architecture
- Interior Design
- Civil Engineering, General

Master's, Doctoral, and Professional Degrees
- Architecture
- Interior Architecture
- Civil Engineering, General

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities	Work-Based Learning Activities
• Invite a guest speaker or participate in an industry tour • Participate in SkillsUSA	• Intern at an architectural firm

Industry-Based Certifications

- Autodesk Associate (Certified User) AutoCAD
- Autodesk Associate (Certified User) Fusion 360
- Autodesk Associate (Certified User) Revit Architecture

Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Architects	$77,043	808	16%
Geographic Information Analysts and Surveyors	$58,926	162	27%
Architectural/ Civil Drafters	$50,170	1,068	9%
Construction Managers	$87,402	2,401	14%

Successful completion of the Architectural Design program of study will fulfill requirements of the Business and Industry endorsement or STEM endorsement if the math and science requirements are met. Revised – August 2022

TEA Texas Education Agency

Architecture and Construction Career Cluster

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

Architectural Design
Course Information

Level 1

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Principles of Architecture	13004210 (1 credit)	None	9-12

Level 2

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Architectural Design I	13004600 (1 credit)	Algebra I and English I Recommended Prerequisite: Principles of Architecture	10-12

Level 3

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Architectural Design II	13004700 (2 credits)	Architectural Design I or CAD and Geometry	11-12

Level 4

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Practicum in Architectural Design	13004800 (2 credits)	Architectural Design II	12

FOR ADDITIONAL INFORMATION ON THE ARCHITECTURAL DESIGN PROGRAM OF STUDY,
PLEASE CONTACT YOUR LOCAL COUNSELOR OR VISIT
https://amtech.amaisd.org/

Architectural Design
Course Information

Principles of Architecture **Course #0153**
Grade Placement: 9–12, Credit: 1 **AHS, CHS, THS**
Prerequisite: None.
Principles of Architecture provides an overview to the various fields of architecture, interior design, and construction management. Achieving proficiency in decision making and problem solving is an essential skill for career planning and lifelong learning. Students use self-knowledge, education, and career information to set and achieve realistic career and educational goals. Job-specific training can be provided through training modules that identify career goals in trade and industry areas. Classroom studies include topics such as safety, work ethics, communication, information technology applications, systems, health, environment, leadership, teamwork, ethical and legal responsibility, employability, and career development and include skills such as problem solving, critical thinking, and reading technical drawings.

Architectural Design I **Course #0155/0155c**
Grade Placement: 10–12, Credit: 1 **AMTECH, AHS, CHS, THS**
Prerequisites: Algebra I and English I.
Recommended Prerequisite: Principles of Architecture.
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 include 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. *NOTE: This course can lead to articulated college credit.*

Architectural Design II **Course #0156c**
Grade Placement: 11–12, Credits: 2 **AMTECH**
Prerequisites: Architectural Design I or CAD and Geometry.
In Architectural Design II, students will gain advanced 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 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. *NOTE: This course can lead to articulated college credit.*

Practicum in Architectural Design **Course #0157c**
Grade Placement: 12, Credits: 2 **AMTECH**
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.

Automotive

Statewide Program of Study

The Automotive program of study teaches CTE learners how to repair and refinish automobiles and service various types of vehicles. CTE learners may learn to collect payment for services or supplies and perform typical vehicle maintenance procedures such as lubrication, oil changes, installation of antifreeze, or replacement of accessories like wiper blades or tires.

Secondary Courses for High School Credit

Freshman
- No course offered

Sophomore
- Automotive Basics
- Collision Repair

Junior
- Automotive Technology I
- Paint and Refinishing

Senior
- Automotive Technology II
- Practicum in Transportation Systems

Complimentary course outside of this program of study
- Business English
- Principles of Construction
- Principles of Architecture

Postsecondary Opportunities

Associates Degrees
- Autobody/ Collision and Repair Technology/ Technician
- Medium/Heavy Vehicle and Truck Technology/ Technician
- Mechanical Engineering/ Mechanical Technology/ Technician

Bachelor's Degrees
- Mechanical Engineering/ Mechanical Technology/ Technician

Master's, Doctoral, and Professional Degrees
- Mechanical Engineering

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities	Work-Based Learning Activities
• Join SkillsUSA or the Automotive Service Association	• Work at a local automotive repair or body shop

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

Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Automotive Body and Related Repairers	$40,144	1,456	25%
Automotive Service Technician and Mechanics	$38,459	5,557	18%

Successful completion of the Automotive program of study will fulfill requirements of the Business and Industry endorsement. Revised – August 2022

Texas Education Agency

Transportation, Distribution, and Logistics Career Cluster

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

Automotive
Course Information

Level 2

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Automotive Basics	13039550 (1 credit)	None	9-12
Collision Repair	13039800 (2 credits)	None	10-12

Level 3

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Automotive Technology I: Maintenance and Light Repair	13039600 (2 credits)	Recommended Prerequisite: Automotive Basics	9-12
Paint and Refinishing	13039900 (2 credits)	Recommended Prerequisite: Collision Repair	10-12

Level 4

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Automotive Technology II	13039700 (2 credits)	Automotive Technology I: Maintenance and Light Repair	11-12
Practicum in Transportation Systems	13040450 (2 credits)	Recommended Prerequisite: Completion of two CTE courses within this program of study	11-12

FOR ADDITIONAL INFORMATION ON THE AUTOMOTIVE PROGRAM OF STUDY,
PLEASE CONTACT YOUR LOCAL COUNSELOR OR VISIT
https://amtech.amaisd.org/

Automotive
Course Information

Automotive Basics **Course #0852c**
Grade Placement: 9–12 Credit: 1 **AMTECH**
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.

Collision Repair **Course #0856c**
Grade Placement: 10–12, Credits: 2 **AMTECH**
Prerequisites: None.
Collision Repair includes knowledge of the processes, technologies, and materials used in the reconstruction of vehicles. This course is designed to teach the concepts and theory of systems related to automotive collision repair and refinishing. *NOTE: This course can lead to articulated college credit.*

Automotive Technology I: Maintenance and Light Repair **Course #0854c**
Grade Placement: 9–12, Credits: 2 **AMTECH**
Recommended Prerequisites: 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. *NOTE: This course can lead to articulated college credit.*

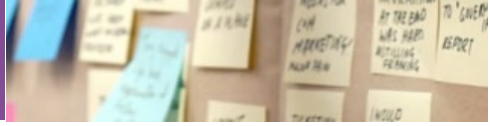
Paint and Refinishing **Course #0857c**
Grade Placement: 10–12, Credits: 2 **AMTECH**
Recommended Prerequisite: Collision Repair.
Paint and Refinishing includes knowledge of the processes, technologies, and materials used in the reconstruction of vehicles. This course is designed to teach the concepts and theory of systems related to automotive paint and refinishing. *NOTE: This course can lead to articulated college credit.*

Automotive Technology II: Automotive Service **Course #0855c**
Grade Placement: 11-12, Credits: 2 **AMTECH**
Prerequisites: Automotive Technology I.
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. *NOTE: This course can lead to articulated or dual credit college credit.*

Practicum in Transportation Systems **Course #0862c**
Grade Placement: 11-12, Credits: 2 **AMTECH**
Recommended Prerequisite: Completion of two CTE courses within this program of study.
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.

Business Management

Statewide Program of Study



The Business Management program of study teaches CTE learners how to plan, direct, and coordinate the administrative services and operations of an organization. Through this program of study, students will learn the skills necessary to formulate policies, manage daily operations, and allocate the use of materials and human resources. This program of study will also introduce students to mathematical modeling tools and organizational evaluation methods.

Secondary Courses for High School Credit

Freshman
- Principles of Business, Marketing, and Finance

Sophomore
- Business Information Management I

Junior
- Business Information Management II

Senior
- Business Management
- Career Preparation I

Complimentary course outside of this program of study
- Entrepreneurship *(home campus or AmTech)*

Postsecondary Opportunities

Associates Degrees
- Business Administration
- Business/Commerce
- Public Administration
- Business Management

Bachelor's Degrees
- Business Administration
- Business/Commerce
- Public Administration
- Management Science

Master's, Doctoral, and Professional Degrees
- Business Administration
- Business Management
- Public Administration
- Management Science

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities	Work-Based Learning Activities
• Participate in Business Professional of America, Future Business Leaders of America, or DECA	• Intern with a local business or chamber of commerce

Industry-Based Certifications

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

- Microsoft Office Specialist-Excel*
- Microsoft Office Specialist-Word*

*IBC sunsetting 8/31/24

Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Administrative Service Managers	$96,138	2,277	21%
Management Analysts	$87,651	4,706	32%
General and Operations Managers	$107,640	18,679	20%
Supervisors of Administrative Support Works	$57,616	14,982	20%

Successful completion of the Business Management program of study will fulfill requirements of the Business and Industry endorsement. Revised – August 2022

Texas Education Agency

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.

Business Management
Course Information

Level 1

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Principles of Business, Marketing, and Finance	13011200 (1 credit)	None	9-11
Business Information Management I	13011400 (1 credit)	None	9-12

Level 2

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Business Information Management II	13011500 (1 credit)	Business Information Management I	10-12

Level 3

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Business Management	13012100 (1 credit)	Recommended Prerequisite: Business Information Management II recommended or at least two Business, Marketing, and Finance courses	10-12

Level 4

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Career Preparation I	12701300 (2 credits)	Recommended Prerequisite: Completion of two CTE courses within this program of study	11-12

FOR ADDITIONAL INFORMATION ON THE BUSINESS MANAGEMENT PROGRAM OF STUDY,
PLEASE CONTACT YOUR LOCAL COUNSELOR OR VISIT
https://www.amaisd.org/488361_3

Principles of Business, Marketing, and Finance **Course #0262**
Grade Placement: 9-11, Credit: 1 **AHS, CHS, PDHS, THS**
Prerequisite: None.
In Principles of Business, Marketing, and Finance, students gain knowledge and skills in economies and private enterprise systems, the impact of global business, the marketing of goods and services, advertising, and product pricing. Students analyze the sales process and financial management principles. This course allows students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings in business, marketing, and finance.

Business Information Management l (BIM I) **Course #0252**
Grade Placement: 9–12, Credit: 1 **AHS, CHS, PDHS, THS**
Prerequisite: None.
In Business Information Management I, students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and make a successful transition to the workforce and postsecondary education. Students apply technical skills to address business applications of emerging technologies, create word- processing documents, develop a spreadsheet, formulate a database, and make an electronic presentation using appropriate software.

Business Information Management ll (BIM II) **Course #0253**
Grade Placement: 10-12, Credit: 1 **AHS, CHS, PDHS, THS**
Prerequisite: Business Information Management l.
In Business Information Management II, students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and make a successful transition to the workforce or postsecondary education. Students apply technical skills to address business applications of emerging technologies, create complex word-processing documents, develop sophisticated spreadsheets using charts and graphs, and make an electronic presentation using appropriate multimedia software.

Business Management **Course #0259**
Grade Placement: 10–12, Credit: 1 **AHS, CHS, PDHS, THS**
Recommended Prerequisite: Business Information Management II or at least two Business, Marketing, and Finance courses.
Business Management is designed to familiarize students with the concepts related to business management as well as the functions of management, including planning, organizing, staffing, leading, and controlling. Students will also demonstrate interpersonal and project-management skills.

Career Preparation l **Course #0960**
Grade Placement: 11-12, Credits: 2 **AHS, CHS, PDHS, THS**
Prerequisite: Completion of two CTE courses within this program of study. Must have valid license & provide own transportation.
Career Preparation I provides opportunities for students to participate in a work-based learning experience that combines classroom instruction with business and industry employment experiences. The goal is to prepare students with a variety of skills for a changing workplace. Career preparation is relevant and rigorous, supports student attainment of academic standards, and effectively prepares students for college and career success. *(May count as final course as part of a CTE pathway towards an endorsement* **if** *the work-based experience is related to student's program of study)*

Carpentry

Statewide Program of Study

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

Secondary Courses for High School Credit

Freshman
- Principles of Construction
- Principles of Architecture

Sophomore
- Construction Technology I

Junior
- Construction Technology II

Senior
- Practicum in Construction Technology

Complimentary course outside of this program of study
- Business English

Postsecondary Opportunities

Associates Degrees
- Carpentry/Carpenter
- Industrial Mechanics and Maintenance Technology

Bachelor's Degrees
- Construction Science

Master's, Doctoral, and Professional Degrees
- Construction Management

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities	Work-Based Learning Activities
• Shadow a carpenter or millwright • Participate in SkillsUSA	• Obtain an NCCER certification in Millwright Level 1 or Carpentry Level 1

Industry-Based Certifications

- NCCER

Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Carpenters	$35,922	5,031	26%
Cost Estimators	$63,939	2,239	21%

Successful completion of the Carpentry program of study will fulfill requirements of the Business and Industry endorsement. Revised – August 2022

Texas Education Agency

Architecture and Construction Career Cluster

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

Carpentry
Course Information

Level 1

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Principles of Construction	13004220 (1 credit)	None	9-12
Principles of Architecture	13004210 (1 credit)	None	9-12

Level 2

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Construction Technology I	13005100 (2 credits)	Recommended Prerequisite: Principles of Trade & Industrial Technology	10-12

Level 3

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Construction Technology II	13005200 (2 credits)	Construction Technology I	11-12

Level 4

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Practicum in Construction Technology	13005250 (2 credits)	Construction Technology ll, Building Maintenance Technology II, Electrical Technology II, HVAC II, or Plumbing Technology I	12

FOR ADDITIONAL INFORMATION ON CARPENTRY PROGRAM OF STUDY,
PLEASE CONTACT YOUR LOCAL COUNSELOR OR VISIT
https://amtech.amaisd.org/

Carpentry
Course Information

Principles of Construction **Course #0154**
Grade Placement: 9–12, Credit: 1 **AHS, CHS, PDHS, THS**
Prerequisite: None.
Principles of Trades and Industrial Technology is intended for students in 9-10 grade to provide a foundation in construction technology, manufacturing, machining, welding, electrical, plumbing, HVAC, automotive technology, and collision repair and refinishing. Students will focus on shop safety, environmental maintenance and hands-on experience in the classroom.

Principles of Architecture **Course #0153**
Grade Placement: 9–12, Credit: 1 **AHS, CHS, THS**
Prerequisite: None.
Principles of Architecture provides an overview to the various fields of architecture, interior design, and construction management. Achieving proficiency in decision making and problem solving is an essential skill for career planning and lifelong learning. Students use self-knowledge, education, and career information to set and achieve realistic career and educational goals. Job-specific training can be provided through training modules that identify career goals in trade and industry areas. Classroom studies include topics such as safety, work ethics, communication, information technology applications, systems, health, environment, leadership, teamwork, ethical and legal responsibility, employability, and career development and include skills such as problem solving, critical thinking, and reading technical drawings.

Construction Technology l **Course #0161c**
Grade Placement: 10–12, Credits: 2 **AMTECH**
Prerequisite: None.
Recommended Prerequisite: Principles of Construction or Principles or Architecture.
In Construction Technology I, students will gain knowledge and skills needed to enter the workforce as carpenters or building maintenance supervisors or to prepare for a postsecondary degree in construction management, architecture, or engineering. Students will acquire knowledge and skills in safety, tool usage, building materials, codes, and framing.

Construction Technology ll **Course #0162c**
Grade Placement: 11–12, Credits: 2 **AMTECH**
Prerequisite: Construction Technology l.
In Construction Technology II, students will gain advanced knowledge and skills needed to enter the workforce as carpenters, building maintenance technicians, or supervisors or to prepare for a postsecondary degree in construction management, architecture, or engineering. Students will build on the knowledge base from Construction Technology I and are introduced to exterior and interior finish out skills.

Practicum in Construction Technology **Course #0175c**
Grade Placement: 12, Credits: 2 **AMTECH**
Prerequisites: Construction Technology ll; Building Maintenance Technology II; Electrical Technology II; HVAC Technology II; or Plumbing Technology I.
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.

Construction Management and Inspection

Statewide Program of Study (PDHS ONLY)

The Construction Management and Inspection program of study explores the occupations and educational opportunities associated with cost estimates for construction projects or services to aid management in bidding on or determining the price of products or services. This program of study may also include exploration into inspecting structures using engineering skills to determine structural soundness and compliance with specifications, building codes, and other regulations.

Secondary Courses for High School Credit

Freshman
- Principles Construction

Sophomore
- Building Maintenance Technology I

Junior
- Building Maintenance Technology II

Senior
- No course offering

Postsecondary Opportunities

Associates Degrees
- Construction Engineering Technology/Technician
- Business Administration and Management, General
- Mechanical Engineering
- Business/ Commerce, General

Bachelor's Degrees
- Construction Engineering Technology/Technician
- Business Administration and Management, General
- Mechanical Engineering
- Business/ Commerce, General

Master's, Doctoral, and Professional Degrees
- Materials Engineering
- Business Administration and Management, General
- Mechanical Engineering

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities	Work-Based Learning Activities
• Shadow a building inspector or cost estimator • Participate in SkillsUSA	• Intern with a construction company • Shadow a project manager or inspector

Industry-Based Certifications

Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Construction and Building Inspectors	$53,914	983	17%
Cost Estimators	$63,939	2,239	21%
Construction Managers	$87,402	2,401	14%

Successful completion of the Construction Management and Inspection program of study will fulfill requirements of the Business and Industry endorsement. Revised – August 2022

TEA Texas Education Agency

Architecture and Construction Career Cluster

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

Construction Management and Inspection
Course Information

Level 1

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Principles of Construction	13004220 (1 credit)	None	9-12

Level 2

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Building Maintenance Technology I	13005400 (2 credits)	Recommended Prerequisite: Principles of Trade & Industrial Technology	10-12

Level 3

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Building Maintenance Technology II	13005500 (2 credits)	Building Maintenance Technology	11-12

FOR ADDITIONAL INFORMATION ON THE CONSTRUCTION MANAGEMENT AND INSPECTION PROGRAM OF STUDY, PLEASE CONTACT YOUR LOCAL COUNSELOR OR VISIT
https://www.amaisd.org/488361_3

Construction Management and Inspection
Course Information

Principles of Construction **Course #0154**
Grade Placement: 9–12, Credit: 1 **AHS, CHS, PDHS, THS**
Prerequisite: None.
Principles of Trades and Industrial Technology is intended for students in 9-10 grade to provide a foundation in construction technology, manufacturing, machining, welding, electrical, plumbing, HVAC, automotive technology, and collision repair and refinishing. Students will focus on shop safety, environmental maintenance and hands-on experience in the classroom.

Building Maintenance Technology l **Course #0164**
Grade Placement: 10–12, Credits: 2 **PDHS**
Prerequisite: None.
Recommended Prerequisite: Principles of Construction.
In Building Maintenance Technology I, students will gain knowledge and skills needed to enter the field of building maintenance as a building maintenance technician or supervisor or secure a foundation for a postsecondary degree in construction management, architecture, or engineering. Students will acquire knowledge and skills in plumbing; electrical; and heating, ventilation, and air conditioning (HVAC) systems. Additionally, students will learn methods for repair and installation of drywall, roof, and insulation systems.

Building Maintenance Technology ll **Course #0165**
Grade Placement: 11–12, Credits: 2 **PDHS**
Prerequisite: Building Maintenance Technology l.
In Building Maintenance Technology II, students will continue to gain advanced knowledge and skills needed to enter the workforce as a building maintenance technician or supervisor and construction project manager or secure a foundation for a postsecondary degree in construction management, architecture, or engineering. Students will acquire knowledge and skills in safety, Occupational Safety and Health Administration (OSHA) standards, and safety devices in electrical circuits; maintenance of electrical and heating, ventilation, and air conditioning (HVAC) systems; and concepts of historic preservation.

Culinary Arts
Statewide Program of Study

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

Secondary Courses for High School Credit

Freshman
- Introduction to Culinary Arts

Sophomore
- Culinary Arts *(home campus and AmTech))*

Junior
- Advanced Culinary Arts

Senior
- Practicum in Culinary Arts

Complimentary course outside of this program of study
- Business English

Postsecondary Opportunities

Associates Degrees
- Hotel and Restaurant Management
- Restaurant Culinary and Catering Management
- Hospitality Administration/ Management, General
- Culinary Arts/ Chef Training

Bachelor's Degrees
- Hotel and Restaurant Management
- Food Service Systems Administration/ Management
- Hospitality Administration/ Management, General
- Culinary Science and Food Service Management

Master's, Doctoral, and Professional Degrees
- Hotel and Restaurant Management
- Food Service Systems Administration/ Management
- Hospitality Administration/ Management, General
- Business Administration Management, General

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities	Work-Based Learning Activities
• Participate in Family, Career, and Community Leaders of America, SkillsUSA, American Culinary Federation, or the Texas Restaurant Association	• Plan a catering event or work for a catering company • Participate in a cooking course • Work in a restaurant

Industry-Based Certifications

- ServSafe Manager

Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Food and Beverage Managers	$55,619	1,561	28%
Chef and Head Cooks	$43,285	1,366	25%
Food Science Technicians	$34,382	236	11%

Successful completion of the Culinary Arts program of study will fulfill requirements of the Business and Industry endorsement. Revised – August 2022

TEA Texas Education Agency

Hospitality and Tourism Career Cluster

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

Culinary Arts
Course Information

Level 1

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Introduction to Culinary Arts	13022550 (1 credit)	None	9-10

Level 2

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Culinary Arts	13022600 (2 credits)	Recommended Prerequisite: Introduction to Culinary Arts	10-12

Level 3

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Advanced Culinary Arts	13022650 (2 credits)	Culinary Arts	10-12

Level 4

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Practicum in Culinary Arts	13022700 (2 credits)	Culinary Arts	11-12

FOR ADDITIONAL INFORMATION ON THE CULINARY ARTS PROGRAM OF STUDY,
PLEASE CONTACT YOUR LOCAL COUNSELOR OR VISIT
https://amtech.amaisd.org/

Culinary Arts
Course Information

Introduction to Culinary Arts **Course #0511**
Grade Placement: 9–10, Credit: 1 **AHS, CHS, PDHS, THS**
Prerequisite: None.
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.

Culinary Arts **Course #0504/0504c**
Grade Placement: 10–12, Credits: 2 **AMTECH, AHS, CHS, PDHS, THS**
Recommended Prerequisite: Introduction to Culinary Arts.
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.
Note: Students who intend to pursue and complete the Culinary Arts Program of Study have the option to choose Culinary Arts at AmTech.

Advanced Culinary Arts **Course #0512c**
Grade Placement: 10–12, Credits: 2 **AMTECH**
Prerequisite: Culinary Arts.
Advanced Culinary Arts will extend content and enhance skills introduced in Culinary Arts by in-depth instruction of industry-driven standards to prepare students for success in higher education, certifications, and/or immediate employment. *NOTE: This course can lead to articulated college credit.*

Practicum in Culinary Arts **Course #0505c**
Grade Placement: 11-12, Credits: 2 **AMTECH**
Prerequisite: Advanced Culinary Arts.
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 culinary art based workplace. *NOTE: This course can lead to articulated college credit.*

Cybersecurity

Statewide Program of Study

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

Secondary Courses for High School Credit

Freshman
- Principles of Information Technology or
- AP Computer Science Principles

Sophomore
- Computer Maintenance and
- Internetworking Technologies I

Junior
- AP Computer Science A *(math/LOTE credit)*
- Foundations of Cybersecurity

Senior
- Practicum in Information Technology

Complimentary course outside of this program of study
- Business English

Postsecondary Opportunities

Associates Degrees
- System Networking, and LAN/WAN Management
- Information Technology
- Computer and Information Sciences, General
- Computer Science

Bachelor's Degrees
- Computer Systems Networking and Telecommunications
- Computer Systems Networking and Telecommunications
- Computer and Information Sciences, General
- Computer Science

Master's, Doctoral, and Professional Degrees
- Computer Systems Analysis/Analyst
- Information Technology
- Computer Information Sciences, General
- Computer Science

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities	Work-Based Learning Activities
• Join TSA • Job shadow a computer system analyst or information security analyst	• Obtain a cybersecurity IBC

Industry-Based Certifications

- CompTIA A+ Certification
- CompTIA Network+
- CompTIA Security+

Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Information Security Analysts	$91,915	814	29%
Network and Computer System Administrators	$82,597	2,814	19%
Computer System Analysts	$87,568	5,937	29%

Successful completion of the Cybersecurity program of study will fulfill requirements of the Business and Industry or STEM endorsement if the math and science requirements are met. Revised – August 2022

Texas Education Agency

Science, Technology, Engineering, and Mathematics Career Cluster

The Science, Technology, Engineering, and Mathematics (STEM) Career Cluster focuses on planning, managing, and providing, scientific research and professional and technical services, including laboratory and testing services, and research and development services.

Cybersecurity
Course Information

Level 1

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Fundamentals of Computer Science	03580140 (1 credit)	None	Offered 8th grade
Principles of Information Technology	1302700 (1 credit)	None	9-10
Foundations of Cybersecurity	03580850 (1 credit)	Recommended to be taken as a Junior	9-12

Level 2

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
AP Computer Science Principles *(math/LOTE credit)*	A3580300 (1 credit)	None	9-12
Computer Maintenance	13027300 (1 credit)	Recommended Prerequisite: Principles of Information Technology	10-12
Internetworking Technologies I	N1302803 (1 credit)	Recommended Prerequisite: Computer Maintenance/Lab	10-12

Level 3

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
AP Computer Science A	A3580110 (2 credits)	Recommended Prerequisite: AP Computer Science Principles	10-12

Level 4

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Practicum in Information Technology	13028000 (2 credits)	Two high school Information Technology courses	12

FOR ADDITIONAL INFORMATION ON THE CYBERSECURITY PROGRAM OF STUDY,
PLEASE CONTACT YOUR LOCAL COUNSELOR OR VISIT
https://amtech.amaisd.org/

Fundamentals of Computer Science **Course #1052**
Grade Placement: 9-12, Credit: 1 **Offered at some middle school campuses**
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. Knowledge and skills 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.

Principles of Information Technology **Course #0600c**
Grade Placement: 9–10, Credit: 1 **AMTECH**
Prerequisites: None.
In Principles of Information Technology, students will develop computer literacy skills to adapt to emerging technologies used in the global marketplace. Students will implement personal and interpersonal skills to prepare for a rapidly evolving workplace environment. Students will enhance reading, writing, computing, communication, and reasoning skills and apply them to the information technology environment.

AP Computer Science Principles **Course #4170c**
Grade Placement: 9-12, Credit: 1 **AMTECH**
Prerequisites: None.
AP Computer Science Principles introduces students to the central ideas of computer science, instilling the ideas and practices of computational thinking and inviting students to understand how computing changes the world. The rigorous course promotes deep learning of computational content, develops computational thinking skills, and engages students in the creative aspects of the field. The course is unique in its focus on fostering students' creativity. Students are encouraged to apply creative processes when developing computational artifacts and to think creatively while using simulations to explore questions that interest them. Rather than teaching a particular programming language or tool, the course focuses on using technology and programming as a means to solve computational problems and create exciting and personally relevant artifacts. Students design and implement innovative solutions using an iterative process similar to what artists, writers, computer scientists, and engineers use to bring ideas to life. *NOTE: Student may sit for AP exam in May to earn college credit.*

Foundations of Cybersecurity **Course #0829c**
Grade Placement: 9-12, Credit: 1 **AMTECH**
Recommended Prerequisites: Recommended as a junior level course.
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. Foundation of Cybersecurity may serve as an introductory course in this field of study.

Computer Maintenance **Course #0601c**
Grade Placement: 10-12, Credit: 1 **AMTECH**
Recommended Prerequisites: Principles of Information Technology.
In Computer Maintenance, students will acquire knowledge of computer maintenance and creating appropriate documentation. Students will analyze the social responsibility of business and industry regarding the significant issues relating to the environment, ethics, health, safety, and diversity in society and in the workplace as related to computer maintenance. Students will apply technical skills to address the IT industry and emerging technologies.

Internetworking Technologies I **Course #0612c**
Grade Placement: 10–12, Credit: 1 **AMTECH**
Recommended Prerequisite: Computer Maintenance.
This course introduces the concept of networking, using various analogies to help the student understand the movement of packets throughout the Internet, and the protocol standards used. The course moves the student into the theory of "moving packets." The concepts of routing and switching "packets" to the correct destination is covered, and how a network administrator can direct and/or streamline this process through device configuration and deployment.

AP Computer Science A **Course #4171c**
Grade Placement:10–12, Credits: 2 *(one class period)* **AMTECH**
Recommended Prerequisites: AP Computer Science Principles.
This college-level course reinforces and increases the depth of understanding of the basic concepts and covers advanced programming concepts which are useful in preparation for the Computer Science Advanced Placement tests. The AP Computer Science II emphasizes object-oriented programming methodology with a concentration on problem solving and algorithm development and is meant to be the equivalent of a first-semester college-level course in Computer Science. The Java programming language is currently taught in this course. Students will learn to become responsible digital citizens by researching current laws and regulations and by practicing integrity and respect throughout the AP Computer Science II course. *(AP courses address learning objectives at greater depth and faster pace along with higher expectations for student performance.) *Upon successful completion of the course, students will earn one credit of math and one credit of LOTE. NOTE: Student may sit for AP exam in May to earn college credit.*

Practicum in Information Technology **Course #0608c**
Grade Placement: 12, Credits: 2 **AMTECH**
Prerequisite: A minimum of two high school information technology (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.

Digital Communications (Audio/Video)

Statewide Program of Study

The Digital Communications program of study explores the occupations 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. This program of study may also include exploration into operating machines and equipment to record sound and images, such as microphones, sound speakers, video screens, projectors, video monitors, sound and mixing boards, and related electronic equipment.

Secondary Courses for High School Credit

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

Sophomore
- Audio/Video Production I *(home campus or AmTech)*

Junior
- Audio/Video Production II/Lab

Senior
- Practicum in Audio/Video Production

Complimentary course outside of this program of study
- Business English

Postsecondary Opportunities

Associates Degrees
- Recording Arts Technology/Technician
- Cinematography and Film/Video Production
- Radio and Television Broadcasting Technology/Technician
- Music Technology

Bachelor's Degrees
- Recording Arts Technology/Technician
- Cinematography and Film/Video Production
- Radio and Television
- Agricultural Communication/Journalism

Master's, Doctoral, and Professional Degrees
- Communications Technology/Technician
- Cinematography and Film/Video Production
- Radio and Television
- Agricultural Communication/Journalism

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities	Work-Based Learning Activities
• Shadow a production team • Participate in SkillsUSA or TSA	• Intern at a local television station or video production company • Work with a local company on a project

Industry-Based Certifications

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

Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Sound Engineering Technicians	$39,562	79	27%
Camera Operators, Television, Video, and Motion Picture	$50,024	129	9%
Audio and Video Equipment Technicians	$40,581	757	29%
Film and Video Editors	$47,382	118	23%

Successful completion of the Digital Communications program of study will fulfill requirements of the Business and Industry endorsement. Revised – August 2022

Texas Education Agency

Arts, Audio/Video Technology, and Communications Career Cluster

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

Digital Communications
Course Information

Level 1

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Principles of Arts, A/V Technology, and Communications	13008200 (1 credit)	None	9
Professional Communications	13009900 (.5 credit)	None	9-12

Level 2

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Audio/Video Production I	13008500 (1 credit)	Recommended Prerequisite: Principles of Arts, A/V Technology, and Communications	9-12

Level 3

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Audio/Video Production II/Lab	13008610 (2 credits)	Audio/Video Production I	10-12

Level 4

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Practicum in Audio/Video Production	13008700 (2 credits)	Audio/Video Production II/Lab	11-12

FOR ADDITIONAL INFORMATION ON THE DIGITAL COMMUNICATIONS PROGRAM OF STUDY,
PLEASE CONTACT YOUR LOCAL COUNSELOR OR VISIT
https://amtech.amaisd.org/

Principles of Arts, Audio/Video Technology, and Communications **Course #0200**
Grade Placement: 9, Credit: 1 **AHS, CHS, PDHS, THS**
Prerequisite: None.
The goal of this course is for the student to understand arts, audio/video technology, and communications systems. Within this context, students will be expected to develop an understanding of the various and multifaceted career opportunities in this cluster and the knowledge, skills, and educational requirements for those opportunities.

Professional Communications **Course #0221**
Grade Placement: 9–12 Credit: .5 **AHS, CHS, PDHS, THS**
Prerequisite: None. **Offered at some middle schools**
Professional Communications blends written, oral, and graphic communication in a career- based environment. Careers in the global economy require individuals to be creative and have a strong background in computer and technology applications, a strong and solid academic foundation, and a proficiency in professional oral and written communication. Within this context, students will be expected to develop and expand the ability to write, read, edit, speak, listen, apply software applications, manipulate computer graphics, and conduct Internet research.

Audio/Video Production I **Course #0203/0203c**
Grade Placement: 9–12 Credit: 1 **AMTECH, CHS, THS**
Recommended Prerequisite: Principles of Arts, A/V Technology, and Communications.
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.

Audio/Video Production II/Audio/Video Production II Lab **Course #0222c**
Grade Placement: 10–12, Credits: 2 **AMTECH**
Prerequisite: Audio/Video Production I.
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. Through diverse forms of storytelling and production, students will exercise and develop creativity, intellectual curiosity, and critical-thinking, problem-solving, and collaborative skills. This course may be implemented in an audio format or a format with both audio and video. Requiring a lab requisite for the course affords necessary time devoted specifically to the production and post-production process.

Practicum in Audio/Video Production **Course #0205c**
Grade Placement: 11-12 Credits: 2 **AMTECH**
Prerequisites: Audio/Video Production II and Audio/Video Production II Lab.
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.

Electrical

Statewide Program of Study

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

Secondary Courses for High School Credit

Freshman
- Principles of Construction

Sophomore
- Electrical Technology I

Junior
- Electrical Technology II

Senior
- Practicum in Construction Technology

Complimentary course outside of this program of study
- Business English

Postsecondary Opportunities

Associates Degrees
- Electrician
- Communications Systems Installation and Repair Technology

Bachelor's Degrees
- Construction Science

Master's, Doctoral, and Professional Degrees
- Construction Management

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities	Work-Based Learning Activities
• Shadow an electrician or fiber optics line installer • Participate in SkillsUSA	• Intern or shadow an electrician

Industry-Based Certifications

- NCCER

Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Electrical Linemen	$54,184	1,314	28%
Electricians	$44,013	8,460	21%
Electrical and Electronics Installers	$37,544	245	19%
Security and Fire Alarm Installers	$43,638	1,112	22%
Telecommunication Line Installers and Repairers	$49,150	1,228	10%

Successful completion of the Electrical program of study will fulfill requirements of the Business and Industry endorsement and STEM endorsement if the math and science requirements are met. Revised – August 2022

TEA Texas Education Agency

Architecture and Construction Career Cluster

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

Electrical
Course Information

Level 1

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Principles of Construction	13004220 (1 credit)	None	9-12

Level 2

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Electrical Technology I	13005600 (1 credit)	Recommended Prerequisite: Principles of Construction	10-12

Level 3

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Electrical Technology II	13005700 (2 credits)	Electrical Technology I	11-12

Level 4

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Practicum in Construction Technology	13005250 (2 credits)	Construction Technology ll; Building Maintenance Technology II; Electrical Technology II; HVAC II; or Plumbing Technology I	12

FOR ADDITIONAL INFORMATION ON THE ELECTRICAL PROGRAM OF STUDY,
PLEASE CONTACT YOUR LOCAL COUNSELOR OR VISIT
https://amtech.amaisd.org/

Principles of Construction **Course #0154**
Grade Placement: 9–12, Credit: 1 **AHS, CHS, PDHS, THS**
Prerequisite: None.
Principles of Trades and Industrial Technology is intended for students in 9-10 grade to provide a foundation in construction technology, manufacturing, machining, welding, electrical, plumbing, HVAC, automotive technology, and collision repair and refinishing. Students will focus on shop safety, environmental maintenance and hands-on experience in the classroom.

Electrical Technology l **Course #0166c**
Grade Placement: 10–12, Credit: 1 **AMTECH**
Prerequisite: None.
Recommended Prerequisite: Principles of Construction.
In Electrical Technology I, students will gain knowledge and skills needed to enter the workforce as an electrician or building maintenance supervisor, prepare for a postsecondary degree in a specified field of construction or construction management, or pursue an approved apprenticeship program. Students will acquire knowledge and skills in safety, electrical theory, tools, codes, installation of electrical equipment, and the reading of electrical drawings, schematics, and specifications.

Electrical Technology ll **Course #0167c**
Grade Placement: 11–12, Credits: 2 **AMTECH**
Prerequisite: Electrical Technology l.
In Electrical Technology II, students will gain advanced knowledge and skills needed to enter the workforce as an electrician, a building maintenance technician, or a supervisor; prepare for a postsecondary degree in a specified field of construction or construction management; or pursue an approved apprenticeship program. Students will acquire knowledge and skills in safety, electrical theory, tools, codes, installation of electrical equipment, alternating current and direct current motors, conductor installation, installation of electrical services, and electric lighting installation.

Practicum in Construction Technology **Course #0175c**
Grade Placement: 12, Credits: 2 **AMTECH**
Prerequisites: Construction Technology ll; Building Maintenance Technology II; Electrical Technology II; HVAC Technology II; or Plumbing Technology I.
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.

Engineering
Statewide Program of Study

The Engineering program of study focuses on the design, development, and use of engines, machines, and structures. CTE learners will learn how to apply science, mathematical methods, and empirical evidence to the innovation, design, construction, operation, and maintenance of different manufacturing systems.

Secondary Courses for High School Credit

Freshman
- Engineering Essentials (PLTW)

Sophomore
- Engineering Science (POE) *(science credit)*

Junior
- Aerospace Engineering (PLTW)

Senior
- Engineering and Design and Development (PLTW)
- Practicum in STEM

Complimentary course outside of this program of study
- Business English

Postsecondary Opportunities

Associates Degrees
- Electrical and Electronics Engineering
- Drafting and Design Technology/ Technician, General
- Engineering Technology

Bachelor's Degrees
- Electrical and Electronics Engineering
- CAD/CADD Drafting and/or Design Technology/ Technician
- Bioengineering and Biomedical Engineering
- Construction Engineering Technology/ Technician

Master's, Doctoral, and Professional Degrees
- Electrical and Electronics Engineering
- Mechanical Engineering
- Bioengineering and Biomedical Engineering

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities	Work-Based Learning Activities
• Participate in Skills USA competitions	• Intern at an engineering firm • Shadow a machinist

Industry-Based Certifications

- Autodesk Associate (Certified User) Fusion 360
- Autodesk Associate (Certified User) Inventor for Mechanical Design
- Autodesk Associate (Certified User) Revit Architecture

- Certified SOLIDWORKS Associate*

*IBC sunsetting 8/31/24

Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Aerospace Engineers	$110,843	481	9%
Industrial Engineers	$97,074	1,263	10%
Mechanical Engineers	$91,107	1,535	11%
Chemical Engineers	$112,819	474	9%
Electrical Engineers	$98,405	1,137	105

Successful completion of the Engineering program of study will fulfill requirements of the Business and Industry or STEM endorsement if the math and science requirements are met. Revised – August 2022

TEA Texas Education Agency

Science, Technology, Engineering, and Mathematics Career Cluster

The Science, Technology, Engineering, and Mathematics (STEM) Career Cluster focuses on planning, managing, and providing, scientific research and professional and technical services, including laboratory and testing services, and research and development services.

Engineering
Course Information

Level 1

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Engineering Essentials (PLTW)	N1303760 (1 credit)	None	9-10

Level 3

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Engineering Science *(science credit)*	13037500 (1 credit)	Algebra I and Biology and at least one credit in a course from the STEM career cluster.	10-11
Aerospace Engineering (PLTW)	N1303745 (1 credit)	Recommended Prerequisite: Engineering Essentials or Engineering Science	11-12
Engineering Design and Development (PLTW)	N1303749 (1 credit)	Recommended Prerequisite: Aerospace Engineering	11-12

Level 4

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Practicum in STEM	13037400 (2 credits)	Algebra I and Geometry	12

FOR ADDITIONAL INFORMATION ON THE ENGINEERING PROGRAM OF STUDY,
PLEASE CONTACT YOUR LOCAL COUNSELOR OR VISIT
https://amtech.amaisd.org/

Project Lead the Way - Engineering Essentials **Course #0828c**
Grade Placement: 9-10, Credit: 1 **AMTECH**
Prerequisite: None.
Students will explore global engineering challenges and stainability goals, the impact of engineering, as well as personal, societal, environmental, and economic impacts of engineering solutions. Career paths in engineering will be explored as well.

Engineering Science **Course #0817c**
Grade Placement: 10-11, Credit: 1 **AMTECH**
Recommended Prerequisite: Geometry, IPC and Chemistry, or one credit in Physics.
Prerequisite: Algebra I and Biology and at least one credit in a course from the STEM career cluster.
Engineering Science is an engineering course designed to expose students to some of the major concepts and technologies that they will encounter in a postsecondary program of study in any engineering domain. Students will have an opportunity to investigate engineering and high-tech careers. In Engineering Science, students will employ science, technology, engineering, and mathematical concepts in the solution of real-world challenge situations. Students will develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges. Students will also learn how to document their work and communicate their solutions to their peers and members of the professional community. *Note: This course satisfies a science credit requirement for students on the Foundation High School Program.*

Project Lead the Way – Aerospace Engineering **Course #0819c**
Grade Placement: 11–12, Credit: 1 **AMTECH**
Recommended Prerequisite: Engineering Essentials or Engineering Science.
This course propels students' learning in the fundamentals of atmospheric and space flight. As they explore the physics of flight, students bring the concepts to life by designing an airfoil, propulsion system, and rockets. They learn basic orbital mechanics using industry-standard software. They also explore robot systems through projects such as remotely operated vehicles.

Project Lead the Way – Engineering Design & Development **Course #0823c**
Grade Placement: 11-12, Credit: 1 **AMTECH**
Recommended Prerequisite: Aerospace Engineering.
The knowledge and skills students acquire throughout PLTW Engineering come together in EDD as they identify an issue and then research, design, and test a solution, ultimately presenting their solution to a panel of engineers. Students apply the professional skills they have developed to document a design process to standards, completing EDD ready to take on any post-secondary program or career.

Practicum in STEM **Course #0813c**
Grade Placement: 12, Credits: 2 **AMTECH**
Recommended Prerequisites: Completion of two CTE courses within this program of study.
Prerequisites: Algebra I and Geometry.
Practicum in STEM 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 worked based.

Entrepreneurship

Statewide Program of Study

The Entrepreneurship program of study teaches CTE learners how to plan, direct, and coordinate the management and operations of public or private sector organizations. Through this program of study, students will learn the skills necessary to formulate policies, manage daily operations, analyze management structures, and plan for the use of materials and human resources.

Secondary Courses for High School Credit

Freshman
- Principles of Business, Marketing, and Finance
- Business Information Management I

Sophomore
- Entrepreneurship *(home campus or AmTech)*

Junior
- Entrepreneurship II

Senior
- Practicum in Business Management

Postsecondary Opportunities

Associates Degrees
- Business Administration and Management
- Business/Commerce
- Public Administration
- Business Management

Bachelor's Degrees
- Business Administration and Management
- Business/Commerce
- Public Administration
- Management Science

Master's, Doctoral, and Professional Degrees
- Business Administration and Management
- Business/Commerce
- Public Administration
- Management Science

Work-Based Learning and Expanded-Learning Opportunities

Exploration Activities	Work-Based Learning Activities
• Participate in Business Professionals of America, Future Leaders of America, or DECA	• Intern with a local management consulting firm

Industry-Based Certifications

- Entrepreneurship and Small Business

Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
General and Operations Managers	$107,640	18,679	20%
Management Analysts	$87,651	4,706	32%
Managers, All Others	$113,110	1,794	26%

Successful completion of the Entrepreneurship program of study will fulfill requirements of the Business and Industry endorsement. Revised – August 2022

TEA Texas Education Agency

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.

Entrepreneurship
Course Information

Level 1

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Principles of Business, Marketing, and Finance	13011200 (1 credit)	None	9-11
Business Information Management I	13011400 (1 credit)	None	9-12

Level 2

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Entrepreneurship I	13034400 (1 credit)	Recommended Prerequisite: Principles of Business, Marketing, and Finance	10-12

Level 3

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Entrepreneurship II	N1303423 (1 credit)	Entrepreneurship I	11-12

Level 4

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Practicum in Business Management	13012200 (2 credits)	Recommended Prerequisites: Touch Systems and Business Management or Business Information Management II	11-12

FOR ADDITIONAL INFORMATION ON THE ENTREPRENEURRSHIP PROGRAM OF STUDY,
PLEASE CONTACT YOUR LOCAL COUNSELOR OR VISIT
https://amtech.amaisd.org/

Principles of Business, Marketing, and Finance **Course #0262**
Grade Placement: 9-11, Credit: 1 **AHS, CHS, PDHS, THS**
Prerequisite: None.
In Principles of Business, Marketing, and Finance, students gain knowledge and skills in economies and private enterprise systems, the impact of global business, the marketing of goods and services, advertising, and product pricing. Students analyze the sales process and financial management principles. This course allows students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings in business, marketing, and finance.

Business Information Management I (BIM I) **Course #0252**
Grade Placement: 9–12, Credit: 1 **AHS, CHS, PDHS, THS**
Prerequisite: None.
In Business Information Management I, students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and make a successful transition to the workforce and postsecondary education. Students apply technical skills to address business applications of emerging technologies, create word- processing documents, develop a spreadsheet, formulate a database, and make an electronic presentation using appropriate software.

Entrepreneurship I **Course #0752/0752c**
Grade Placement: 10–12, Credit: 1 **AMTECH, AHS, CHS, PDHS, THS**
Prerequisite: None.
Recommended Prerequisite: Principles of Business, Marketing, and Finance.
Students will learn the principles necessary to begin and operate a business. The primary focus of the course is to help students understand the process of analyzing a business opportunity, preparing a business plan, determining feasibility of an idea using research, and developing a plan to organize and promote the business and its products and services.

Entrepreneurship II **Course #0760c**
Grade Placement: 11-12, Credit: 1 **AMTECH**
Prerequisite: Entrepreneurship I.
Students will work in close cooperation with local industry leaders, community members, and educators to develop ideas and objectives, complete a business model canvas, pitch to potential investors, register with governmental agencies, and develop brand identity. The goal and outcome of the course is to have a business launched by the end of the course or have the tools necessary to launch and operate a business.

Practicum in Business Management **Course #0260c**
Grade Placement: 11-12, Credits: 2 **AMTECH**
Recommended Prerequisites: Touch Systems and Business Management or Business Information Management II.
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 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.

Graphic Design & Multimedia Arts

Statewide Program of Study

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

Secondary Courses for High School Credit

Freshman
- Principles of Arts, A/V Technology, and Communications
- Digital Arts and Animation *(fine arts credit)* *(home campus or AmTech)*

Sophomore
- Graphic Design and Illustration I *(home campus or AmTech)*
- Animation I
- Commercial Photography I

Junior
- Graphic Design and Illustration II/Lab
- Animation II/Lab
- Commercial Photography II

Senior
- Practicum in Graphic Design and Illustration
- Practicum in Animation

Complimentary course outside of this program of study
- Business English

Postsecondary Opportunities

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

Bachelor's Degrees
- Animation, Interactive Technology, Video Graphics and Special Effects
- Graphic Design
- Game and Interactive Media Design

Master's, Doctoral, and Professional Degrees
- Animation, Interactive Technology, Video Graphics and Special Effects
- Graphic Design
- Intermedia/Multimedia

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities	Work-Based Learning Activities
• Obtain guest speakers or industry tours • Participate in SkillsUSA or TSA	• Intern with a multimedia, animation studio, or professional photographer • Obtain a certificate or certification in graphic design

Industry-Based Certifications

- 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
- Audio-Visual Communications - Job Ready
- Autodesk Associate (Certified User) 3ds MAX
- Certified Professional Photographer
- Graphic Production Technology - Job Ready

- Adobe Certified Professional Animate*

*IBC Sunsetting 8/31/24

Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Graphic Designers	$44,824	1,433	15%
Multimedia Artists and Animators	$67,392	186	21%

Successful completion of the Graphic Design & Multimedia Arts program of study will fulfill requirements of the Business and Industry endorsement. Revised – August 2022

TEA Texas Education Agency

Arts, Audio/Video Technology, and Communications Career Cluster

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

Graphic Design & Multimedia Arts
Course Information

Level 1

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Principles of Arts, A/V Technology, & Communications	13008200 (1 credit)	None	9

Level 2

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Graphic Design and Illustration I	13008800 (1 credit)	Recommended Prerequisite: Principles of Arts, A/V Technology, & Communications	10-12
Animation I	13008300 (1 credit)	Recommended Prerequisite: Principles of Arts, A/V Technology, & Communications	10-12
Commercial Photography I	13009100 (1 credit)	Recommended Prerequisite: Principles of Arts, A/V Technology, & Communications	9-12

Level 3

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Graphic Design and Illustration II/Lab	13008910 (2 credits)	Graphic Design and Illustration I	10-12
Animation II/Lab	13008410 (2 credits)	Animation I	11-12
Commercial Photography II	13009200 (1 credit)	Recommended Prerequisite: Commercial Photography I	10-12
Digital Arts and Animation *(fine arts credit)*	03580500 (1 credit)	Recommended Prerequisite: Art, Level I	9-12

Level 4

COURSE NAME	SERVICE ID	PREREQUISITES (PREQ)	GRADE
Practicum in Graphic Design and Illustration	13009000 (2 credits)	Graphic Design and Illustration II and Graphic Design and Illustration II Lab	10-12
Practicum in Animation	13008450 (2 credits)	Animation II and Animation II Lab	11-12

FOR ADDITIONAL INFORMATION ON THE GRAPHIC DESIGN & MULTIMEDIA ARTS PROGRAM OF STUDY, PLEASE CONTACT YOUR LOCAL COUNSELOR OR VISIT
https://amtech.amaisd.org/

Principles of Arts, Audio/Video Technology, and Communications **Course #0200**
Grade Placement: 9, Credit: 1 **AHS, CHS, PDHS, THS**
Prerequisite: None.
The goal of this course is for the student to understand arts, audio/video technology, and communications systems. Within this context, students will be expected to develop an understanding of the various and multifaceted career opportunities in this cluster and the knowledge, skills, and educational requirements for those opportunities.

Digital Art and Animation **Course #0227/0227c**
Grade Placement: 9–12 Credit: 1
Recommended Prerequisite: Art, Level I.
Digital Art and Animation consists of computer images and animations created with digital imaging software. Digital Art and Animation has applications in many careers, including graphic design, advertising, web design, animation, corporate communications, illustration, character development, script writing, storyboarding, directing, producing, inking, project management, editing, and the magazine, television, film, and game industries. Students in this course will produce various real-world projects and animations. The six strands include creativity and innovation; communication and collaboration; research and information fluency; critical thinking; problem solving, and decision making; digital citizenship; and technology operations and concepts.

Graphic Design and Illustration I **Course #0207/0207c**
Grade Placement: 10–12, Credit: 1 **AHS, CHS, PDHS, AMTECH**
Recommended Prerequisite: Principles of Arts, A/V Technology, and Communications.
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 industry with a focus on fundamental elements and principles of visual art and design.

Animation I **Course #0201c**
Grade Placement: 10–12, Credit: 1 **AMTECH**
Recommended Prerequisite: Principles of Arts, A/V Technology, and Communications.
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.

Commercial Photography I **Course #0211**
Grade Placement: 9–12 Credit: 1 **AHS, CHS, PDHS, THS**
Recommended Prerequisite: Principles of Arts, A/V Technology, and Communications or Graphic Design and Illustration I.
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.

Graphic Design and Illustration II/Graphic Design and Illustration II Lab **Course #0224c**
Grade Placement: 10–12, Credits: 2 **AMTECH**
Prerequisite: Graphic Design and Illustration I.
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 understanding of the industry with a focus on mastery of content knowledge and skills. Districts are encouraged to offer this lab in a consecutive block with Graphic Design and Illustration II to allow students sufficient time to master the content of both courses. *NOTE: This course can lead to articulated college credit.*

Animation II/Animation II Lab **Course #0225c**
Grade Placement: 11–12, Credits: 2 **AMTECH**
Prerequisite: Animation I.
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. Districts are encouraged to offer this lab in a consecutive block with Animation II to allow students sufficient time to master the content of both courses.

Commercial Photography II **Course #0212**
Grade Placement: 10–12 Credit: 1 **AHS, CHS, PDHS, THS**
Recommended Prerequisite: Commercial Photography I.
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.

Practicum in Graphic Design and Illustration **Course #0209c**
Grade Placement: 10-12 Credits: 2 **AMTECH**
Prerequisites: Graphic Design and Illustration II and Graphic Design and Illustration II Lab.
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 a technical understanding of the industry with a focus on skill proficiency. Instruction may be delivered through lab-based classroom experiences or career preparation opportunities.

Practicum in Animation **Course #0226c**
Grade Placement: 11-12 Credits: 2 **AMTECH**
Prerequisites: Animation II and Animation II Lab.
Building upon the concepts taught in Animation II and its corequisite Animation 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 animation products in a professional environment. Instruction may be delivered through lab-based classroom experiences or career preparation opportunities.

Healthcare Therapeutic

Statewide Program of Study

The Healthcare Therapeutic program of study introduces students to occupations and educational opportunities related to diagnosing and treating acute, episodic, or chronic illness independently or as part of a healthcare team. This program of study also includes an introduction to the opportunities associated with providing treatment and counsel to patients as well as rehabilitative programs that help build or restore daily living skills to persons with disabilities or developmental delays.

Secondary Courses for High School Credit

Freshman
- Principles of Health Science

Sophomore
- Medical Terminology
- Introduction to Pharmacy Science
- Introduction to Dental Science

Junior
- Dental Anatomy and Physiology
- Pharmacy I
- Anatomy and Physiology *(science credit)*
- Health Science Theory

Senior
- Practicum in Health Science *(CMA, PCT, EKG, Dental, & Pharmacy)*

Complimentary courses not in this program of study
- Mathematics for Medical Professionals (Medical Math)
- Business English

Postsecondary Opportunities

Associates Degrees
- Dental Hygienist
- Medical/Clinical Assistant

Bachelor's Degrees
- Dental Hygienist

Master's, Doctoral, and Professional Degrees
- Dentist
- Physician Assistant
- Family and General Practitioners
- Pharmacist

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities	Work-Based Learning Activities
• Participate in SkillsUSA or Health Occupation Students of America	• Volunteer at a community wellness center, hospital, assisted living, or nursing home

Industry-Based Certifications

- Certified Clinical Medical Assistant
- Certified Dental Assistant
- Certified EKG Technician
- Certified Nurse Aide (CNA)
- Certified Patient Care Technician (CPCT)
- Nationally Registered Certified EKG Technician
- Patient Care Technician
- Pharmacy Technician
- Registered Dental Assistant X-Ray Certification

- Certified Ophthalmic Technician*
- Certified Surgical Technologist*
- Licensed Dental Hygienist*
- Orthopedic Technologist*

*IBC sunsetting 8/31/24

Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Medical Assistants	$29,598	8,862	30%
Surgical Technologists	$45,032	1,150	20%
Dental Hygienists	$73,507	1,353	38%
Physicians and Surgeons	$213,071	1,151	30%

Successful completion of the Healthcare Therapeutic program of study will fulfill requirements of a Public Service endorsement or STEM endorsement if the math and science requirements are met. Revised – August 2022

TEA Texas Education Agency

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. To pursue a career in the health science industry, students should learn to reason, think critically, make decisions, solve problems, communicate effectively, and work well with others.

Healthcare Therapeutic Course Information

Level 1

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Principles of Health Science	13020200 (1 credit)	None	9-10
Introduction to Pharmacy Science	N1302103 (1 credit)	Recommended Prerequisite: Principles of Health Science	9-10
Introduction to Dental Science	N1302101 (1 credit)	Recommended Prerequisite: Principles of Health Science	9-11

Level 2

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Medical Terminology	13020300 (1 credit)	Recommended Prerequisite: Principles of Health Science	9-12
Dental Anatomy and Physiology	N1302122 (1 credit)	Recommended Prerequisite: Introduction to Dental Science	10-12
Pharmacy I	N1302127 (1 credit)	Recommended Prerequisite: Introduction to Pharmacy Science	10-11

Level 3

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Anatomy and Physiology *(science credit)*	13020600 (1 credit)	One credit in Biology and one credit in Chemistry, Integrated Physics and Chemistry, or Physics.	10-12
Health Science Theory	13020400 (1 credit)	Biology Recommended Prerequisite: At least one credit in a course from the health science career cluster.	10-12

Level 4

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Practicum in Health Science	13020500 (2 credits)	Health Science Theory and Biology	11-12

FOR ADDITIONAL INFORMATION ON THE HEALTHCARE THERAPEUTIC PROGRAM OF STUDY,
PLEASE CONTACT YOUR LOCAL COUNSELOR OR VISIT
https://amtech.amaisd.org/

Principles of Health Science **Course #0450/0450c**
Grade Placement: 9-10, Credit: 1 **AMTECH/CHS/PDHS**
Prerequisite: None.
The Principles of Health Science course is designed to provide an overview of the therapeutic, diagnostic, health informatics, support services, and biotechnology research and development systems of the health care industry.

Medical Terminology **Course #0451/0451c**
Grade Placement: 9-12, Credit: 1 **AMTECH/CHS/PDHS**
Prerequisite: None.
Recommended Prerequisite: 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. *NOTE: This course can lead to articulated college credit.*

Introduction to Dental Science **Course #0467c**
Grade Placement: 9-11, Credit: 1 **AMTECH**
Prerequisite: None.
Recommended Prerequisite: Principles of Health Science.
Introduction to Dental Science is an introductory health science course designed to initiate secondary students to the field of dentistry and related topics. At the end of the course, students will be able to discuss the history of dentistry; identify dental related career pathways; explain dental legal and ethical responsibilities; recognize professional healthcare behavior and demeanor; and perform basic routine dental office procedures. The purpose of this course is to establish a foundation for future coursework in dental science and prepare secondary students for a future career in dentistry.

Introduction to Pharmacy Science **Course #0468c**
Grade Placement: 9-10, Credit: 1 **AMTECH**
Prerequisite: None.
Recommended Prerequisite: Principles of Health Science.
The Introduction to Pharmacy Sciences course is designed to provide an overview of the history of the pharmacy profession, legal and ethical aspects of pharmacy, skills necessary to work in the field of pharmacy (including professionalism, certifications/registration, communication and medical terminology, and rules and regulations pertaining to the field), medical math, anatomy and physiology/pathophysiology, pharmacology, and wellness as they pertain to pharmacy sciences.

Dental Anatomy and Physiology **Course #0471c**
Grade Placement: 10-12, Credit: 1 **AMTECH**
Recommended Prerequisite: Introduction to Dental Science and Biology.
Dental Anatomy and Physiology is a health science course designed for exploration of the physiology of the head, neck, oral, and dental anatomy. Students will identify and describe functions of anatomical structures, including the bones, muscles, nerves, and blood vessels of the head and neck as well as their relationship to the corresponding body systems. Students will also identify and describe oral, head and neck pathologies, conditions, diagnostic tools, treatments, and professions. While this course is identified as dental, it is well suited for all students interested in pursuing any of the professions involved with the head and neck such as dentistry, otolaryngology, optometry, radiology, audiology, neurology, reconstructive/plastic surgery.

Pharmacy I **Course #0472c**
Grade Placement: 10-11, Credit: 1 **AMTECH**
Recommended Prerequisite: Introduction to Pharmacy Science or Principles in Health Science and one credit of Biology.
The Pharmacy I course is designed to build upon the knowledge and skills taught in the Introduction to Pharmacy Science course. Students build on their existing foundation of knowledge and skills needed to pursue a career in the pharmaceutical field such as a pharmacy technician or pharmacist). Instruction includes pharmacokinetics, pharmacy law, medication safety, the dispensing process, and inventory. This course is aligned with the standards of the national certification exams that students might take, such as Pharmacy Technician Certification Examination (PTCE) and/or Exam for the Certification of Pharmacy Technicians (ExCPT). Recommended participants are students who wish to become certified pharmacy technicians.

Anatomy and Physiology **Course #0455/0455c**
Grade Placement: 10-12, Credit: 1 **AMTECH, AHS, CHS, PDHS, THS**
Prerequisite: Biology and at least one credit in Chemistry, IPC, or Physics.
The Anatomy and Physiology course is designed for students to 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 will study a variety of topics, including the structure and function of the human body and the interaction of body systems for maintaining homeostasis.
Note: This course satisfies a science credit requirement for graduation.

Health Science Theory **Course #0452c**
Grade Placement: 10-12, Credit: 1 **AMTECH**
Prerequisites: Biology.
Recommended Prerequisite: At least one credit in a course from the health science career cluster.
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.

Practicum in Health Science **Course #0453c**
Grade Placement: 11-12, Credits: 2 **AMTECH**
Prerequisites: Health Science Theory and Biology.
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 that may include internships and/or clinical experiences.
Course #0463c CMA Practicum experiences while working toward CMA certification
Course #0464c EKG Practicum experience while working toward EKG certification
Course #0465c EMT Practicum experience while working toward Dual Credit
Course #0466c PCT Practicum experience while working toward PCT certification
Course #0469c Dental Practicum experience while working toward Dental Assisting certification
Course #0470c Pharmacy Practicum experience while working toward Pharmacy Technician certification

HVAC and Sheet Metal

Statewide Program of Study

The HVAC and Sheet Metal program of study explores the occupations and educational opportunities associated with installing, serving, or repairing heating and air conditioning systems and also the fabrication, assembly, installation, and repair of sheet metal products and equipment, such as ducts, control boxes, drainpipes, and furnace casings. This program of study may also include exploration into preparing cost estimates for certain construction projects involving heating and air conditioning and sheet metal.

Secondary Courses for High School Credit

Freshman
- Principles of Construction

Sophomore
- Heating, Ventilation Air Conditioning (HVAC) and Refrigeration Technology I

Junior
- Heating, Ventilation Air Conditioning (HVAC) and Refrigeration Technology II

Senior
- Practicum in Construction Technology

Complimentary course outside of this program of study
- Business English

Postsecondary Opportunities

Associates Degrees
- Business Administration and Management, General
- Mechanical Engineering
- Heating, Ventilation, Air Conditioning and Refrigeration Engineering Technology/ Technician
- Business/ Commerce, General

Bachelor's Degrees
- Business Administration and Management
- Mechanical Engineering
- Construction Engineering Technology/ Technician
- Business/ Commerce, General

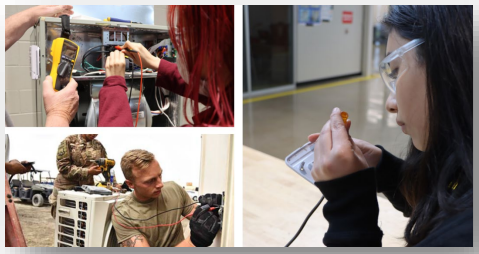
Master's, Doctoral, and Professional Degrees
- Business Administration and Management
- Mechanical Engineering
- Construction Engineering
- Business/Commerce, General

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities	Work-Based Learning Activities
• Shadow an HVAC worker or cost estimator • Participate in SkillsUSA	• Intern with an HVAC and/or sheet metal company

Industry-Based Certifications

- Refrigerant Handling (EPA 608)



Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Heating, Air Conditioning, and Refrigeration Mechanics	$41,808	3,356	26%
Sheet Metal Workers	$37,419	1,479	17%
Cost Estimators	$63,939	2,239	21%

Successful completion of the HVAC and Sheet Metal program of study will fulfill requirements of the Business and Industry endorsement. Revised – August 2022

TEA Texas Education Agency

Architecture and Construction Career Cluster

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

HVAC and Sheet Metal
Course Information

Level 1

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Principles of Construction	13004220 (1 credit)	None	9-12

Level 2

COURSE NAME	SERVICE ID	PREREQUISITES	GREADE
Heating, Ventilation, and Air Conditioning (HVAC) and Refrigeration Technology I	13005800 (1 credit)	Recommended Prerequisite: Principles of Construction	10-12

Level 3

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Heating, Ventilation, and Air Conditioning (HVAC) and Refrigeration Technology II	13005900 (2 credits)	Heating, Ventilation, and Air Conditioning (HVAC) and Refrigeration Technology I	11-12

Level 4

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Practicum in Construction Technology	13005250 (2 credits)	Construction Technology II; Building Maintenance Technology II; Electrical Technology II; HVAC II; or Plumbing Technology I	12

FOR ADDITIONAL INFORMATION ON THE HVAC AND SHEET METAL PROGRAM OF STUDY,
PLEASE CONTACT YOUR LOCAL COUNSELOR OR VISIT
https://amtech.amaisd.org/

Principles of Construction **Course #0154**
Grade Placement: 9–12, Credit: 1 **AHS, CHS, PDHS, THS**
Prerequisite: None.
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. This course also provides communication and occupation skills to assist the student in obtaining and maintaining employment.

Heating, Ventilation, and Air Conditioning (HVAC) and Refrigeration Technology I **Course #0168c**
Grade Placement: 10–12, Credit: 1 **AMTECH**
Prerequisite: None.
Recommended Prerequisite: Principles of Construction.
In Heating, Ventilation, and Air Conditioning and Refrigeration Technology I, students will gain knowledge and skills needed to enter the industry as technicians in the HVAC and refrigeration industry or building maintenance industry, prepare for a postsecondary degree in a specified field of construction management, or pursue an approved apprenticeship program. Students will acquire knowledge and skills in safety, principles of HVAC theory, use of tools, codes, and installation of HVAC and refrigeration equipment.

Heating, Ventilation, and Air Conditioning (HVAC) and Refrigeration Technology II **Course #0169c**
Grade Placement: 11–12, Credits: 2 **AMTECH**
Prerequisite: HVAC Technology I.
In Heating, Ventilation, and Air Conditioning (HVAC) and Refrigeration Technology II, students will gain advanced knowledge and skills needed to enter the industry as HVAC and refrigeration technicians or building maintenance technicians or supervisors, prepare for a postsecondary degree in a specified field of construction or construction management, or pursue an approved apprenticeship program. Students will acquire knowledge and skills in safety, electrical theory, use of tools, codes, installation of commercial HVAC equipment, heat pumps, troubleshooting techniques, various duct systems, and maintenance practices.

Practicum in Construction Technology **Course #0175c**
Grade Placement: 12, Credits: 2 **AMTECH**
Prerequisites: Construction Technology II; Building Maintenance Technology II; Electrical Technology II; HVAC Technology II; or Plumbing Technology I.
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.

Information Technology Support and Services

Statewide Program of Study

The Information Technology Support and Services program of study explores the occupations and educational opportunities associated with administering, testing, and implementing computer databases and applying knowledge of database management systems. This program of study may also include analyzing user requirements and problems to automate or improve existing systems and review computer system capabilities. This program of study may also include exploration into the research, design, or testing of computer or computer-related equipment for commercial, industrial, military, or scientific use.

Secondary Courses for High School Credit

Freshman
- Principles of Information Technology

Sophomore
- Computer Maintenance

Junior
- Computer Technician Practicum

Senior
- Practicum of Information Technology

Complimentary course outside of this program of study
- Business English
- Internetworking Technologies I

Postsecondary Opportunities

Associates Degrees
- Computer and Information Sciences, General
- Computer and Information Systems Security/ Information Assurance
- Information Technology
- Computer Systems Networking and Telecommunications

Bachelor's Degrees
- Computer and Information Sciences, General
- Computer and Information Systems Security /Information Assurance
- Computer Engineering, General
- Computer Systems Networking and Telecommunications

Master's, Doctoral, and Professional Degrees
- Computer and Information Sciences, General
- Computer Systems Analysis/ Analyst
- Computer Engineering, General
- Information Technology

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities	Work-Based Learning Activities
• Join TSA • Job shadow a database administrator or computer hardware engineer	• Earn an IT certification

Industry-Based Certifications

- CompTIA A+ Certification
- CompTIA IT Fundamentals+

Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Database Administrator	$83,075	1,063	19%
Computer Hardware Engineer	$111,738	343	24%
Computer System Analyst and Support	$87,568	5,937	29%

Successful completion of the Information Technology Support and Services program of study will fulfill requirements of the Business and Industry endorsement or STEM endorsement if the math and science requirements are met. Revised – August 2022

TEA Texas Education Agency

Information Technology Career Cluster

The Information Technology (IT) Career Cluster focuses on building linkages in IT occupations for entry level, technical, and professional careers related to the design, development, support, and management of hardware, software, multimedia, and systems integration services.

Information Technology Support and Services Course Information

Level 1

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Principles of Information Technology	13027200 (1 credit)	None	9-10

Level 2

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Computer Maintenance	13027300 (1 credit)	Recommended Prerequisite: Principles of Information Technology	10-12

Level 3

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Computer Technician Practicum	13027500 (2 credits)	Recommended Prerequisite: Principles of Information Technology or Computer Maintenance	10-12

Level 4

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Practicum in Information Technology	13028000 (2 credits)	A minimum of two high school Information Technology (IT) courses	12

FOR ADDITIONAL INFORMATION ON THE INFORMATION TECHNOLOGY SUPPORT AND SERVICES PROGRAM OF STUDY, PLEASE CONTACT YOUR LOCAL COUNSELOR OR VISIT
https://amtech.amaisd.org/

Principles of Information Technology **Course #0600c**
Grade Placement: 9–10, Credit: 1 **AMTECH**
Prerequisites: None.
In Principles of Information Technology, students will develop computer literacy skills to adapt to emerging technologies used in the global marketplace. Students will implement personal and interpersonal skills to prepare for a rapidly evolving workplace environment. Students will enhance reading, writing, computing, communication, and reasoning skills and apply them to the information technology environment.

Computer Maintenance **Course #0601c**
Grade Placement: 10-12, Credit: 1 **AMTECH**
Recommended Prerequisites: Principles of Information Technology.
In Computer Maintenance, students will acquire knowledge of computer maintenance and creating appropriate documentation. Students will analyze the social responsibility of business and industry regarding the significant issues relating to the environment, ethics, health, safety, and diversity in society and in the workplace as related to computer maintenance. Students will apply technical skills to address the IT industry and emerging technologies.

Computer Technician Practicum I **Course #0603c**
Grade Placement: 10-12, Credits: 2 **AMTECH**
Recommended Prerequisites: Principles of Information Technology or Computer Maintenance/Lab.
In the Computer Technician Practicum, students will gain knowledge and skills in the area of computer technologies, including advanced knowledge of electrical and electronic theory, computer principles, and components related to the installation, diagnosis, service, and repair of computer-based technology systems. Students will reinforce, apply, and transfer their knowledge and skills to a variety of settings and problems. 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 instructor, with an industry mentor, or both.

Practicum in Information Technology **Course #0608c**
Grade Placement: 12, Credits: 2 **AMTECH**
Prerequisite: A minimum of two high school information technology (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.

Law Enforcement

Statewide Program of Study

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

Secondary Courses for High School Credit

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

Sophomore
- Criminal Investigation

Junior
- Law Enforcement II
- Correctional Services
- Forensic Science *(science credit)*

Senior
- Practicum in Law, Public Safety Corrections, and Security

Complimentary course outside of this program of study
- Business English

Postsecondary Opportunities

Associates Degrees
- Criminal Justice/Safety Studies/Law
- Enforcement Administration
- Criminal Justice/Police Science
- Corrections
- Criminalistics and Criminal Science

Bachelor's Degrees
- Criminal Justice/Safety Studies/Law
- Enforcement Administration
- Criminal Justice/Police Science
- Juvenile Corrections
- Cyber/Computer Forensics and Counterterrorism

Master's, Doctoral, and Professional Degrees
- Criminal Justice/Safety Studies/Law
- Law Enforcement and Protective Services

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities	Work-Based Learning Activities
• Join the Texas Public Service Association or local criminal justice clubs	• Attend court hearings and other legal procedures

Industry-Based Certifications

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

Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Police and Sheriff's Patrol Officers	$60,112	5,241	13%
Probation Officers and Correctional Treatment Officers	$44,054	793	9%
Correctional Officers and Jailers	$40,186	4,683	9%
Immigration and Customs Inspectors	$78,104	1,236	9%
First-Line Supervisors of Police and Detectives	$91,312	253	25%

Successful completion of the Law and Public Service program of study will fulfill requirements of the Public Service endorsement. Revised – August 2022

TEA Texas Education Agency

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. Students will examine the roles and responsibilities of police, courts, corrections, private security, and fire and emergency services.

Law Enforcement
Course Information

Level 1

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Principles of Law, Public Safety, Corrections, and Security	13029200 (1 credit)	None	9-12

Level 2

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Criminal Investigation	13029550 (1 credit)	Recommended Prerequisite: Principles of Law, Public Safety, Corrections, and Security	10-12

Level 3

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Law Enforcement II	13029400 (1 credit)	Recommended Prerequisite: Law Enforcement I or Principles of Law, Public Safety, Corrections, and Security	10-12
Correctional Services	13029700 (1 credit)	Recommended Prerequisite: Principles of Law, Public Safety, Corrections, and Security	10-12

Level 4

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Forensic Science *(science credit)*	13029500 (1 credit)	Biology and Chemistry	11-12
Practicum in Law, Public Safety, Corrections, and Security	13030100 (2 credits)	Recommended Prerequisite: Completion of two CTE courses within this program of study	11-12

FOR ADDITIONAL INFORMATION ON LAW ENFORCEMENT PROGRAM OF STUDY,
PLEASE CONTACT YOUR LOCAL COUNSELOR OR VISIT
https://amtech.amaisd.org/

Principles of Law, Public Safety, Corrections, and Security **Course #0650**
Grade Placement: 9–12, Credit: 1 **AHS, CHS, PDHS, THS**
Prerequisite: None.
Principles of Law, Public Safety, Corrections, and Security introduces students to professions in law enforcement, protective services, corrections, firefighting, 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, protective services, and corrections.

Criminal Investigation **Course #0663**
Grade Placement: 10-12, Credit: 1 **AHS, CHS, PDHS, THS**
Recommended 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 courtroom presentation. 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.

Law Enforcement ll **Course #0652c**
Grade Placement: 11–12, Credit: 1 **AMTECH**
Recommended Prerequisite: Law Enforcement l.
Law Enforcement II provides the knowledge and skills necessary to prepare for a career in law enforcement. Students will understand ethical and legal responsibilities, patrol procedures, first responder roles, telecommunications, emergency equipment operations, and courtroom testimony.

Correctional Services **Course #0655c**
Grade Placement: 10–12, Credit: 1 **AMTECH**
Recommended Prerequisite: Principles of Law, Public Safety, Corrections, and Security.
In Correctional Services, students prepare for certification required for employment as a municipal, county, state, or federal correctional officer. Students will learn the role and responsibilities of a county or municipal correctional officer; discuss relevant rules, regulations, and laws of municipal, county, state, or federal facilities; and discuss defensive tactics, restraint techniques, and first aid procedures as used in the municipal, county, state, or federal correctional setting. Students will analyze rehabilitation and alternatives to institutionalization for inmates.

Forensic Science **Course #4404/4404c**
Grade Placement: 11–12, Credit: 1 **AMTECH, AHS, CHS, PDHS, THS**
Prerequisites: Biology and Chemistry.
Forensic Science is a course that introduces students to the application of science to connect a violation of law to a specific criminal, criminal act, or behavior and victim. Students will learn terminology and procedures related to the search and examination of physical evidence in criminal cases as they are performed in a typical crime laboratory. Using scientific methods, students will collect and analyze evidence such as fingerprints, bodily fluids, hairs, fibers, paint, glass, and cartridge cases. Students will also learn the history and the legal aspects as they relate to each discipline of forensic science. Scientific methods of investigation can be experimental, descriptive, or comparative. The method chosen should be appropriate to the question being asked. *Note: This course satisfies a science credit requirement for students on the Foundation High School Program.*

Practicum in Law, Public Safety, Corrections, and Security **Course #0659c**
Grade Placement: 11-12, Credits: 2 **AMTECH**
Recommended Prerequisite: Completion of two CTE courses within this program of study.
The practicum course is designed to give students supervised practical application of previously studied knowledge and skills in law, public safety, corrections, and security. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience. Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.

Legal Studies

Statewide Program of Study

The Legal Studies program of study introduces CTE learners to the occupations and educational opportunities related to representing clients in criminal and civil litigation and other legal proceedings, as well as assisting lawyers and preparing legal documents. This program of study explores possible specializations in a single area of law.

Secondary Courses for High School Credit

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

Sophomore
- Court Systems and Practices

Junior
- Advanced Legal Skills and Professions

Senior
- Practicum in Law, Public Safety, Corrections, and Security

Complimentary course outside of this program of study
- Business English

Postsecondary Opportunities

Associates Degrees
- Legal Assistant/Paralegal

Bachelor's Degrees
- Legal Assistant/Paralegal

Master's, Doctoral, and Professional Degrees
- Law
- Intellectual Property Law
- Advanced Legal Research/Studies General
- International Law and Legal Studies

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities	Work-Based Learning Activities
• Attend court hearings and other legal procedures • Join the Texas Public Service Association	• Intern with a local attorney • Script and conduct a mock trial

Industry-Based Certifications

- No certification offered

Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Lawyers	$126,131	2,801	19%
Paralegal and Legal Assistants	$50,544	2,837	19%

Successful completion of the Legal Studies program of study will fulfill requirements of the Public Service endorsement. Revised – August 2022

Texas Education Agency

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. Students will examine the roles and responsibilities of police, courts, corrections, private security, and fire and emergency services.

Legal Studies
Course Information

Level 1

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Principles of Law, Public Safety, Corrections, and Security	13029200 (1 credit)	None	9-12

Level 2

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Court Systems and Practices	13029600 (1 credit)	Recommended Prerequisite: Principles of Law, Public Safety, Corrections, and Security	10-12

Level 3

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Advanced Legal Skills and Professions	N1303016 (1 credit)	Recommended Prerequisite: Principles of Law, Public Safety, Corrections, and Security and Court Systems and Practices	11-12

Level 4

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Practicum in Law, Public Safety, Corrections, and Security	13030100 (2 credits)	Recommended Prerequisite: Completion of two CTE courses within this program of study	11-12

FOR ADDITIONAL INFORMATION ON LEGAL STUDIES PROGRAM OF STUDY,
PLEASE CONTACT YOUR LOCAL COUNSELOR OR VISIT
https://amtech.amaisd.org/

Principles of Law, Public Safety, Corrections, and Security **Course #0650**
Grade Placement: 9–12, Credit: 1 **AHS, CHS, PDHS, THS**
Prerequisite: None.
Principles of Law, Public Safety, Corrections, and Security introduces students to professions in law enforcement, protective services, corrections, firefighting, 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, protective services, and corrections.

Court Systems and Practices **Course #0654c**
Grade Placement: 10–12, Credit: 1 **AMTECH**
Recommended 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 procedures such as search and seizure, stop and frisk, and interrogation.

Advanced Legal Skills and Professions **Course #0664c**
Grade Placement: 11-12, Credit: 1 **AMTECH**
Prerequisite: Principles of Law, Public Safety, Corrections, and Security and Court Systems and Practices.
Students will be provided with a foundation to understand the basic mechanics of the U.S. legal system. Building on prior instruction in constitutional issues and the basics of American court systems, this course provides insight into the practical application of the law, as well as civil and criminal procedure, giving students a hands-on opportunity to experience a variety of legal professions.

Practicum in Law, Public Safety, Corrections, and Security **Course #0659c**
Grade Placement: 11-12, Credits: 2 **AMTECH**
Recommended Prerequisite: Completion of two CTE courses within this program of study.
The practicum course is designed to give students supervised practical application of previously studied knowledge and skills in law, public safety, corrections, and security. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience. Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.

Manufacturing Technology (Machining)

Statewide Program of Study

The Manufacturing Technology 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 set up and operate a variety of machine tools to produce precision parts and instruments. Students will also 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

Freshman
- No course offered

Sophomore
- Precision Metal Manufacturing I

Junior
- Precision in Metal Manufacturing II

Senior
- Practicum in Manufacturing

Complimentary course outside of this program of study
- Principles of Construction
- Business English

Postsecondary Opportunities

Associates Degrees
- Welding Technology/Welder
- Machine Shop Technology/Assistant
- Operations Management and Supervision
- Occupational Safety and Health Technology/Technician

Bachelor's Degrees
- Welding Engineering Technology/Technician
- Biomedical Technology/ Technician
- Operations Management and Supervision
- Environmental Health

Master's, Doctoral, and Professional Degrees
- Welding Engineering Technology/Technician
- Occupational Health and Industrial Hygiene
- Operations Management and Supervision
- Environmental Health

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities	Work-Based Learning Activities
• Participate and compete in SkillsUSA • Job shadow a machinist	• Work in a local business or industry apprenticeship • Join the American Welding Society

Industry-Based Certifications

- CNC Lathe Operations
- CNC Lathe Set Up and Operations
- Machining CNC Mill Operations Level I
- Machining CNC Mill Programming Setup and Operations Level I
- Machining CNC Milling Skills Level II
- Machining CNC Turning Level II
- Machining Drill Press Level I
- Machining Grinding Level I
- Machining Measurement, Material, and Safety Level I
- Machining Milling Level I

- Mastercam Associate Certification Mill Design and Toolpaths*
- Mastercam Certified Professional Mill Level 1*
- Mastercam Professional Level Certification*
- OSHA 30 Hour General*

*IBC sunsetting 8/31/24

Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Mechanical Engineering Technicians	$57,117	453	9%
CNC Machine Operators	$39,250	1,319	12%
Aerospace Engineering and Operations Technicians	$60,757	114	9%
Electrical and Electronics Engineering Technicians	$60,382	1,439	9%
Industrial Engineering Technicians	$61,672	326	9%

Successful completion of the Manufacturing Technology program of study will fulfill requirements of the Business and Industry and STEM endorsement if math and science requirements are met. Revised – August 2022

TEA Texas Education Agency

Manufacturing Career Cluster

The Manufacturing Career Cluster focuses on planning, managing, and performing the processing of materials into intermediate or f final products and related professional and technical support activities such as production planning and control, maintenance, and manufacturing/process engineering.

Manufacturing Technology
Course Information

Level 3

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Precision Metal Manufacturing I	13032500 (2 credits)	None	10-12

Level 4

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Precision Metal Manufacturing II	13032600 (2 credits)	Recommended Prerequisite: Precision Metal Manufacturing I	11-12
Practicum in Manufacturing	13033000 (2 credits)	Recommended Prerequisite: Completion of two CTE courses within this program of study.	12

FOR ADDITIONAL INFORMATION ON THE MANUFACTURING TECHNOLOGY PROGRAM OF STUDY,
PLEASE CONTACT YOUR LOCAL COUNSELOR OR VISIT
https://amtech.amaisd.org/

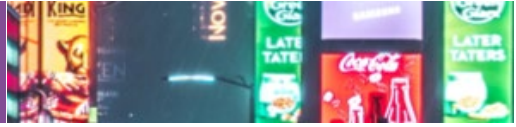
Precision Metal Manufacturing I **Course #0703c**
Grade Placement: 10–12, Credits: 2 **AMTECH**
Prerequisites: None.
Precision Metal Manufacturing I will provide the knowledge, skills, and technologies required for employment in precision machining. While the course is designed to provide necessary skills in machining, it also provides a real-world foundation for any engineering discipline. This course may address a variety of materials such as plastics, ceramics, and wood in addition to metal. Students will develop knowledge of the concepts and skills related to precision metal manufacturing to apply them to personal and career development. This course supports integration of academic and technical knowledge and skills. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for success. *NOTE: This course can lead to articulated college credit.*

Precision Metal Manufacturing II **Course #0704c**
Grade Placement: 11–12, Credits: 2 **AMTECH**
Recommended Prerequisite: Precision Metal Manufacturing I.
Precision Metal Manufacturing II Lab provides the knowledge, skills, and technologies required for employment in precision machining. While Precision Metal Manufacturing II Lab is designed to provide necessary skills in machining, it also provides a real-world foundation for any engineering discipline. This course may address a variety of materials such as plastics, ceramics, and wood in addition to metal. Students will develop knowledge of the concepts and skills related to these systems to apply them to personal and career development. This course supports integration of academic and technical knowledge and skills. Students will have opportunities to 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 prepare students for success. This course is designed to provide entry-level employment for the student or articulated credit and/or dual credit with Amarillo College with the completion of the advanced course. *NOTE: This course can lead to articulated or dual credit college credit and a Level I certification.*

Practicum in Manufacturing **Course #0708c**
Grade Placement: 12, Credits: 2 **AMTECH**
Recommended Prerequisite: Completion of two CTE courses within this program of study.
The Practicum in Manufacturing course 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. The Extended Practicum in Manufacturing course 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.

Marketing & Sales

Statewide Program of Study



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

Secondary Courses for High School Credit

Freshman
- Principles of Business, Marketing, and Finance

Sophomore
- Sports and Entertainment Marketing I (FALL)
- Sports and Entertainment Marketing II (SPRING)
- Fashion Marketing (FALL)
- Social Media Marketing (FALL)
- Advertising (SPRING)

Junior
- Advanced Marketing

Senior
- Practicum in Marketing

Complimentary course outside of this program of study
- Business English
- Entrepreneurship *(home campus or AmTech)*

Postsecondary Opportunities

Associates Degrees
- Marketing/ Marketing Management, General
- Consumer Merchandising/ Retailing Management
- International Marketing
- Business

Bachelor's Degrees
- Marketing/ Marketing Management, General
- Business Administration
- Applied Economics
- Marketing Research

Master's, Doctoral, and Professional Degrees
- Marketing
- Business Administration
- Applied Economics
- Advertising

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities	Work-Based Learning Activities
• Participate in DECA	• Intern with a local marketing firm • Operate a school store on campus

Industry-Based Certifications

- Stukent Social Media Marketing Certification

Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Marketing Research Analysts and Marketing Specialists	$70,346	4,664	40%
Insurance Sales Agent	$43,181	5,886	30%
First-Line Supervisors of Retail Sales Workers	$72,550	2,826	15%
Wholesale and Retail Buyers	$51,106	1,229	19%

Successful completion of the Marketing and Sales program of study will fulfill requirements of the Business and Industry endorsement. Revised – August 2022

TEA Texas Education Agency

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.

Marketing & Sales
Course Information

Level 1

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Principles of Business, Marketing, and Finance	13011200 (1 credit)	None	9-11

Level 2

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Sports and Entertainment Marketing I	13034600 (.5 credit)	Recommended Prerequisite: Principles of Business, Marketing, and Finance	9-12
Fashion Marketing	13034300 (.5 credit)	Recommended Prerequisite: Principles of Business, Marketing, and Finance	9-12

Level 3

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Sports and Entertainment Marketing II	N1303422 (.5 credit)	Sports and Entertainment Marketing	10-12
Social Media Marketing	13034650 (.5 credit)	Recommended Prerequisite: Principles of Business, Marketing, and Finance	9-12
Advertising	13034200 (.5 credit)	Recommended Prerequisite: Principles of Business, Marketing, and Finance	9-12

Level 4

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Advanced Marketing	13034700 (2 credits)	One credit from the courses in the Marketing Career Cluster	11-12
Practicum in Marketing	13034800 (2 credits)	Recommended Prerequisite: Principles of Business, Marketing, and Finance.	11-12

FOR ADDITIONAL INFORMATION ON MARKETING & SALES PROGRAM OF STUDY,
PLEASE CONTACT YOUR LOCAL COUNSELOR OR VISIT
https://amtech.amaisd.org/

Principles of Business, Marketing, and Finance **Course #0262**
Grade Placement: 9-11, Credit: 1 **AHS, CHS, PDHS, THS**
Prerequisite: None.
In Principles of Business, Marketing, and Finance, students gain knowledge and skills in economies and private enterprise systems, the impact of global business, the marketing of goods and services, advertising, and product pricing. Students analyze the sales process and financial management principles. This course allows students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings in business, marketing, and finance.

Sports and Entertainment Marketing I (FALL) **Course #0754c**
Grade Placement: 9-12, Credit: .5 **AMTECH**
Recommended Prerequisite: Principles of Business, Marketing, and Finance.
Sports and Entertainment Marketing will provide students with a thorough understanding of the marketing concepts and theories that apply to sports and entertainment. The areas this course will cover include basic marketing concepts, publicity, sponsorship, endorsements, licensing, branding, event marketing, promotions, and sports and entertainment marketing strategies.

Sports and Entertainment Marketing II (SPRING) **Course #0763c**
Grade Placement: 10-12, Credit: .5 **AMTECH**
Prerequisite: Sports and Entertainment Marketing.
Sports and Entertainment Marketing II is an advanced course designed to build upon students' prior knowledge of sports and entertainment marketing. Students will develop a thorough understanding of advanced marketing concepts and theories as they relate to the sports and entertainment industries.

Social Media Marketing (FALL) **Course #0758c**
Grade Placement: 9-12, Credit: .5 **AMTECH**
Recommended 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.

Fashion Marketing (FALL) **Course #0751c**
Grade Placement: 9-12, Credit: .5 **AMTECH**
Recommended Prerequisite: Principles of Business, Marketing, and Finance.
Fashion Marketing is designed to provide students with knowledge of the various business functions in the fashion industry. Students in Fashion Marketing will gain a working knowledge of promotion, textiles, merchandising, mathematics, selling, visual merchandising, and career opportunities.

Advertising (SPRING) **Course #0750c**
Grade Placement: 9-12, Credit: .5 **AMTECH**
Recommended Prerequisite: Principles of Business, Marketing, and Finance.
Advertising is designed as a comprehensive introduction to the principles and practices of advertising. Students will gain knowledge of techniques used in current advertising, including print, broadcast, and digital media. The course explores the social, cultural, ethical, and legal issues of advertising, historical influences, strategies, media decision processes as well as integrated marketing communications, and careers in advertising and sales promotion. The course provides an overview of how communication tools can be used to reach target audiences and increase consumer knowledge.

Advanced Marketing **Course #0761c**
Grade Placement: 11-12, Credits: 2 **AMTECH**
Prerequisite: One credit from the courses in the Marketing Career Cluster.
In Advanced Marketing, students will gain knowledge and skills that help them become proficient in one or more of the marketing functional areas. Students will illustrate appropriate management and research skills to solve problems related to marketing. This course covers technology, communication, and customer-service skills.

Practicum in Marketing **Course #0756c**
Grade Placement: 11-12, Credits: 2 **AMTECH**
Recommended Prerequisites: Principles in Business, Marketing, and Finance.
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.

Plant Science

Statewide Program of Study

The Plant Science program of study focuses on the science, research, and business of plants and other living organisms. It teaches students how to apply 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

Freshman
- Principles of Agriculture, Food, and Natural Resources

Sophomore
- Floral Design *(fine arts credit)*

Junior
- Advanced Floral Design

Senior
- Practicum in Agriculture, Food, and Natural Resources

Postsecondary Opportunities

Associates Degrees
- Applied Horticulture/ Horticulture Operations, General
- Ornamental Horticulture
- Agricultural Business and Management, General
- Turf and Turfgrass Management

Bachelor's Degrees
- Applied Horticulture/ Horticulture Operations, General
- Agronomy and Crop Science
- Agricultural Business and Management, General
- Turf and Turfgrass Management

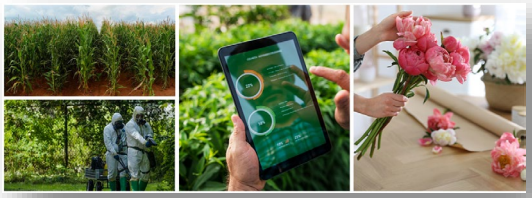
Master's, Doctoral, and Professional Degrees
- Applied Horticulture/ Horticulture Operations, General
- Agronomy and Crop Science
- Agricultural Business and Management, General
- Farm/Farm and Ranch Management

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities	Work-Based Learning Activities
• Participate in Texas FFA	• Work at a florist or landscaper business • Participate in an FFA supervised agriculture experience

Industry-Based Certifications

- Principles of Floral Design Certification
- Texas State Florist's Association Knowledge Based Floral Certification
- Texas State Florist's Association Level I Floral Certification
- Texas State Florist's Association Level II Floral Certification



Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Soil and Plant Scientists	$54,662	116	21%
Tree Trimmers and Pruners	$32,240	589	14%
Pesticide Handlers, Sprayers, and Applicators	$36.733	196	22%
Landscaping Supervisors	$44,408	807	19%
Biological Technicians	$42,931	452	17%

Successful completion of the Plant Science program of study will fulfill requirements of a Business and Industry endorsement or STEM endorsement if the math and science requirements are met. Revised – August 2022

Texas Education Agency

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 a diverse spectrum of occupations, ranging from farmer, rancher, and veterinarian to geologist, land conservationist, and florist. It also includes non-traditional agricultural occupations like wind energy, solar

Plant Science
Course information

Level 1

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Principles of Agriculture, Food, and Natural Resources	13000200 (1 credit)	None	9-12

Level 3

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Floral Design *(fine arts credit)*	13001800 (1 credit)	None	9-12

Level 4

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Advanced Floral Design	N1300270 (1 credit)	Floral Design	11-12
Practicum in Agriculture, Food, and Natural Resources	13002500 (2 credits)	Recommended Prerequisite: Completion of two CTE courses within this program of study	11-12

FOR ADDITIONAL INFORMATION ON PLANT SCIENCE PROGRAM OF STUDY,
PLEASE CONTACT YOUR LOCAL COUNSELOR OR VISIT
https://www.amaisd.org/488361_3

Principles of Agriculture, Food, and Natural Resources **Course #0100**
Grade Placement: 9–12, Credit: 1 **CHS, THS**
Prerequisite: None.
Principles of Agriculture, Food, and Natural Resources will allow students to develop knowledge and skills regarding career and educational opportunities, personal development, globalization, industry standards, details, practices, and expectations.

Floral Design **Course #0116**
Grade Placement: 9–12, Credit: 1 **CHS, PDHS, THS**
Prerequisite: None.
Floral design is designed to develop students' ability to identify and demonstrate the principles and techniques related to floral design as well as develop an understanding of the management of floral enterprises. Through the analysis of artistic floral styles and historical periods, students will develop respect for the traditions and contributions of diverse cultures. Students will respond to and analyze floral designs, thus contributing to the development of lifelong skills of making informed judgements and evaluations**. *Note: This course satisfies a fine arts credit requirement.***

Advanced Floral **Course #0128**
Grade Placement: 11–12, Credit: 1 **CHS, PDHS, THS**
Prerequisites: Floral Design.
In Advanced Floral, 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 provides 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.

Practicum in Agriculture, Food, and Natural Resources **Course #0123**
Grade Placement: 11-12, Credits: 2 **CHS, PDHS, THS**
Recommended Prerequisites: Completion of two CTE courses within this program of study.
Practicum in Agriculture, Food, and Natural Resources 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. The practicum course is a paid or unpaid capstone experience for students participating in a coherent sequence of career and technical education courses in the Agriculture, Food, and Natural Resources Career Cluster.

Plumbing and Pipefitting

Statewide Program of Study

The Plumbing and Pipefitting program of study explores the occupations and educational opportunities related to assembling, installing, or repairing pipes, fittings, or fixtures of heating, water, or drainage systems. This program of study may also include exploration into maintaining pipe supports or related hydraulic or pneumatic equipment for steam, hot water, heating, cooling, lubricating, sprinkling, or industrial production or processing systems.

Secondary Courses for High School Credit

Freshman
- Principles of Construction

Sophomore
- Plumbing Technology I

Junior
- Plumbing Technology II

Senior
- Practicum in Construction Technology

Complimentary course outside of this program of study
- Business English

Postsecondary Opportunities

Associates Degrees
- Plumbing Technology/ Plumber
- Electrical and Power Transmission Installation/ Installer, General
- Pipefitting/ Pipefitter and Sprinkler Fitter
- High Performance and Custom Engine Technician/ Mechanic

Bachelor's Degrees
- Construction Science
- Operations Management and Supervision

Master's, Doctoral, and Professional Degrees
- Construction Management
- Operations Management and Supervision

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities	Work-Based Learning Activities
• Job shadow a plumber, pipefitter, or steamfitter • Participate in SkillsUSA	• Obtain a Core Curriculum NCCER certification in Pipefitting Level I or Plumbing Level I

Industry-Based Certifications

- NCCER

Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Mechanics, Installers, and Repairers	$63,710	4,243	17%
Plumbers, Pipefitters and Steamfitters	$44,928	5,765	23%
Helpers-Pipelayers, Plumbers, Pipefitters, and Steamfitters	$30,098	1,567	18%
Pipe Installers	$31,616	802	21%

Successful completion of the Plumbing and Pipefitting program of study will fulfill requirements of the Business and Industry endorsement. Revised – August 2022

Texas Education Agency

Architecture and Construction Career Cluster

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

Plumbing and Pipefitting
Course Information

Level 1

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Principles of Construction	13004220 (1 credit)	None	9-12

Level 2

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Plumbing Technology I	13006000 (1 credit)	Recommended Prerequisite : Principles of Construction	10-12

Level 3

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Plumbing Technology II	13006100 (2 credits)	Plumbing Technology I	11-12

Level 4

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Practicum in Construction Technology	13005250 (2 credits)	Construction Technology ll; Building Maintenance Technology II; Electrical Technology II; HVAC II; or Plumbing Technology	12

FOR ADDITIONAL INFORMATION ON THE PLUMBING AND PIPEFITTING PROGRAM OF STUDY,
PLEASE CONTACT YOUR LOCAL COUNSELOR OR VISIT
https://amtech.amaisd.org/

Principles of Construction **Course #0154**
Grade Placement: 9–12, Credit: 1 **AHS, CHS, PDHS, THS**
Prerequisite: None.
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. This course also provides communication and occupation skills to assist the student in obtaining and maintaining employment.

Plumbing Technology I **Course #0170c**
Grade Placement: 10–12, Credit: 1 **AMTECH**
Prerequisite: None.
Recommended Prerequisite: Principles of Construction.
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.

Plumbing Technology II **Course #0171c**
Grade Placement: 11–12, Credits: 2 **AMTECH**
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.

Practicum in Construction Technology **Course #0175c**
Grade Placement: 12, Credits: 2 **AMTECH**
Prerequisites: Construction Technology II; Building Maintenance Technology II; Electrical Technology II; HVAC Technology II; or Plumbing Technology II.
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.

Teaching and Training

Statewide Program of Study

The Teaching and Training program of study prepares CTE learners for careers related to teaching, instruction, and creation of instructional and enrichment materials. The program of study introduces CTE learners to a wide variety of student groups and their corresponding needs. It familiarizes them with the processes for developing curriculum, coordinating educational content, and coaching groups and individuals.

Secondary Courses for High School Credit

Freshman
- Principles of Education and Training

Sophomore
- Child Development

Junior
- Instructional Practices

Senior
- Practicum in Education and Training

Postsecondary Opportunities

Associates Degrees
- Teacher Education
- Education, General (or specific subject area)
- Special Education
- Health and Physical Education/Fitness

Bachelor's Degrees
- Bilingual and Multilingual Education
- Education, General (or specific subject area)
- Special Education
- Health and Physical Education/Fitness

Master's, Doctoral, and Professional Degrees
- Instruction and Learning
- Educational Leadership and Administration, General
- Special Education
- Social and Philosophical Foundations of Education

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities	Work-Based Learning Activities
• Participate in the Texas Association of Future Educators or Family, Career, and Community Leaders of America	• Teach a community education class • Intern as a teaching assistant or tutor • Serve as a camp counselor

Industry-Based Certifications

- Educational Aide I

Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Adult Basic and Secondary Education and Literacy Teachers and Instructors	$48,069	862	17%
Middle School Teachers, Except Special and Career/Technical Education	$54,510	6,407	15%
Career and Technical Education Teachers, Secondary School	$56,360	719	9%
Special Education Teachers, Secondary School	$56,720	980	18%

Successful completion of the Teaching and Training program of study will fulfill requirements of the Public Service endorsement. Revised – August 2022

Texas Education Agency

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.

Teaching and Training
Course Information

Level 1

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Principles of Education and Training	13014200 (1 credit)	None	9-10

Level 2

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Child Development	13024700 (1 credit)	Recommended Prerequisite: Principles in Education and Training	10-12

Level 3

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Instructional Practices	13014400 (2 credits)	1 credit from Education and Training Career Cluster	11-12

Level 4

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Practicum in Education and Training	13014500 (2 credits)	Instructional Practices	12

FOR ADDITIONAL INFORMATION ON THE TEACHING AND TRAINING PROGRAM OF STUDY,
PLEASE CONTACT YOUR LOCAL COUNSELOR OR VISIT
https://www.amaisd.org/488361_3

Principles of Education and Training **Course #0300**
Grade Placement: 9–10, Credit: 1 **AHS, CHS, PDHS, THS**
Prerequisite: None.
Principles of Education and Training is designed to introduce learners to the various careers available within the Education and Training Career Cluster. Students use self- knowledge as well as educational and career information to analyze various careers within the Education and Training Career Cluster. Students will develop a graduation plan that leads to a specific career choice in the student's interest area.

Child Development **Course #0555**
Grade Placement: 10-12, Credit: 1 **AHS, CHS, PDHS, THS**
Prerequisite: None.
Recommended Prerequisite: Principles of Education and Training.
This course is designed to provide individuals opportunities to develop knowledge and skills related to the development, care, guidance, and protection of children. Course addresses the principles and procedures for promoting the physical, emotional, social, and intellectual development of young children, including those with special needs.

Instructional Practices **Course #0302**
Grade Placement: 11–12, Credits: 2 **AHS, CHS, PDHS, THS**
Prerequisite: At least one credit in a course from the education and training career cluster.
Recommended Prerequisite: Principles of Education and Training or Child Development.
Instructional Practices is a field-based (practicum) internship that provides students with background knowledge of child and adolescent development as well as principles of effective teaching and training practices. Students work under the joint direction and supervision of both a teacher with knowledge of early childhood, middle childhood, and adolescence education and exemplary educators or trainers 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, develop materials for educational environments, assist with record keeping, and complete other responsibilities of teachers, trainers, paraprofessionals, or other educational personnel.

Practicum in Education and Training **Course #0303**
Grade Placement: 12, Credits: 2 **AHS, CHS, PDHS, THS**
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.

Welding

Statewide Program of Study

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

Freshman
- No course offered

Sophomore
- Welding I

Junior
- Welding II

Senior
- Practicum in Manufacturing

Complimentary course outside of this program of study
- Principles of Construction
- Business English

Postsecondary Opportunities

Associates Degrees
- Certified Welder or Welder Inspector
- Machine Shop Technology/Assistant
- Operations Management and Supervision
- Occupational Safety and Health Technology/Technician

Bachelor's Degrees
- Welding Engineering Technology/Technician
- Biomedical Technology/Technician
- Operations Management and Supervision
- Environmental Health

Master's, Doctoral, and Professional Degrees
- Welding Engineering Technology/Technician
- Occupational Health and Industrial Hygiene
- Operations Management and Supervision
- Environmental Health

Work-Based Learning and Expanded Learning Opportunities

Exploration Activities	Work-Based Learning Activities
• Participate and compete in SkillsUSA • Job shadow a machinist	• Work in a local business or industry apprenticeship • Join the American Welding Society

Industry-Based Certifications

- AWS D1.1 Structural Steel
- AWS D9.1 Sheet Metal Welding
- OSHA 30 Hour General*

*IBC sunsetting 8/31/24

Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Welders, Cutters, Solderers, and Brazers	$41,350	6,171	9%
Welding Soldering and Brazing Machine Setters, Operators and Tenders	$40,040	280	9%

Successful completion of the Welding program of study will fulfill requirements of the Business and Industry endorsement. Revised – August 2022

Texas Education Agency

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 manufacturing/process engineering.

Welding
Course Information

Level 2

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Welding I	13032300 (2 credits)	None	10-12

Level 3

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Welding II	13032400 (2 credits)	Welding I	11-12

Level 4

COURSE NAME	SERVICE ID	PREREQUISITES	GRADE
Practicum in Manufacturing	13033000 (2 credits)	Recommended Prerequisite: Completion of two CTE courses within this program of study.	12

FOR ADDITIONAL INFORMATION ON THE WELDING PROGRAM OF STUDY,
PLEASE CONTACT YOUR LOCAL COUNSELOR OR VISIT
https://amtech.amaisd.org/

Welding
Course Information

Welding I **Course #0701c**
Grade Placement: 10–12, Credits: 2 **AMTECH**
Prerequisites: None.
Welding I provide the knowledge, skills, and technologies required for employment in metal technology systems. Students will develop knowledge and skills related to this system 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 prepare students for future success. Students will have opportunities to reinforce, apply, and transfer knowledge and skills to a variety of settings and problems. *NOTE: This course can lead to articulated college credit.*

Welding ll **Course #0702c**
Grade Placement: 11–12, Credits: 2 **AMTECH**
Prerequisites: Welding l.
Welding II builds on the knowledge and skills developed in Welding I. Students will develop advanced welding concepts and skills as related to personal and career development. Students will integrate academic and technical knowledge and skills. Students will have opportunities to reinforce, apply, and transfer knowledge and skills to a variety of settings and problems. *NOTE: This course can lead to articulated college credit.*

Practicum in Manufacturing **Course #0708c**
Grade Placement: 12, Credits: 2 **AMTECH**
Recommended Prerequisite: Completion of two CTE courses within this program of study.
The Practicum in Manufacturing course 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. The Extended Practicum in Manufacturing course 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.

Dollars and Sense **Course #0551**
Grade Placement: 10–12, Credit: .5 **AHS, CHS, PDHS, THS**
Prerequisite: None.
This course focuses on consumer practices and responsibilities, money-management processes, decision-making skills, impact on technology, and preparation for human services careers.

Touch Systems **Course #0251**
Grade Placement: 9-10, Credit: .5 **MIDDLE SCHOOLS, PDHS, THS**
Prerequisite: None
In this course students apply technical skills to address business applications of emerging technologies. Students enhance reading, writing, computing, communication, and reasoning skills and apply them to the business environment. Students will need to apply touch system data entry skills for production of business documents.

Lifetime Nutrition and Wellness **Course #0553**
Grade Placement: 9-12, Credit: .5 **PDHS, THS**
Prerequisite: None
Students will use principles of lifetime wellness and nutrition to help them make informed choices that promote fitness and health. Students explore food preparation, calorie intake, vitamins, and exercise.

Entrepreneurship I **Course #0752/0752c**
Grade Placement: 10–12, Credit: 1 **AmTech, AHS, CHS, PDHS, THS**
Recommended Prerequisite: Principles of Business, Marketing, and Finance and/or Business Information Management I.
Students will learn the principles necessary to begin and operate a business. The primary focus of the course is to help students understand the process of analyzing a business opportunity, preparing a business plan, determining feasibility of an idea using research, and developing a plan to organize and promote the business and its products and services. *NOTE: This course can lead to articulated college credit.*

Food Technology and Safety **Course #0111c**
Grade Placement: 10-12, Credit: 1 **AMTECH**
Prerequisites: None.
Food Technology and Safety examines the food technology industry as it relates to food production, handling, and safety. To prepare for careers in value-added and food processing systems, students must attain academic skills and knowledge, acquire technical knowledge and skills related to value-added and food processing 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 and technologies in a variety of settings.

Mathematics for Medical Professionals **Course #4156c**
Grade Placement: 11-12, Credit: 1 **AMTECH**
Prerequisite: Geometry and Algebra II.
The Mathematics for Medical Professionals course is designed to serve as the driving force behind the Texas essential knowledge and skills for mathematics, guided by the college and career readiness standards. By embedding statistics, probability, and finance, while focusing on fluency and solid understanding in medical mathematics, students will extend and apply mathematical skills necessary for health science professions.

General Employability Skills **Course #0966c**
Grade Placement: 9-12, Credit: 1 **AMTECH**
Prerequisite: None.
This course provides students with knowledge of the prerequisite skills for general employment as well as the means of obtaining those skills. Employability skills include fundamentals of maintenance of personal appearance and grooming. The course also includes the knowledge, skills, and attitudes that allow employees to get along with their co-workers, make important work-related decisions, and become strong members of the work team. Discovering job possibilities that link skills, abilities, interests, values, needs, and work environment preferences is a part of the process of obtaining employability skills and abilities and is experiential learning that takes place over time.

Technical Math **Course #4120c**
Grade Placement: 11-12, Credit: 1 **AMTECH**
Prerequisite: Algebra I.
This course is not eligible for 4th Math credit for Multi-Disciplinary Option 2. This course concentrates on the application of mathematics as it relates to technical careers. Problem solving situations, hands-on activities and technology are used in this course to extend mathematical thinking and engage student reasoning. Situations relating to technical applications provide students opportunities to make connections with mathematics and the workplace. In addition, students will learn the skills necessary to communicate using mathematics. Hands-on activities will allow students to model, explore and develop abstract concepts applicable to technical careers. Essential to this course is the partnership between math and technical teachers.

Business English **Course #0254c**
Grade Placement: 12, Credit: 1 **AMTECH**
Prerequisite: English III.
In Business English, students enhance communication and research skills by applying them to the business environment, in addition to exchanging information and producing properly formatted business documents using emerging technology. *Note: This course satisfies the high school advanced English graduation requirement.*

Career Preparation I **Course #0960**
Grade Placement: 11-12, Credits: 2 **AHS, CHS, PDHS, THS**
Prerequisite: Completion of two CTE courses within a program of study. Must have valid license & provide own transportation.
Career Preparation I provides opportunities for students to participate in a work-based learning experience that combines classroom instruction with business and industry employment experiences. The goal is to prepare students with a variety of skills for a changing workplace. Career preparation is relevant and rigorous, supports student attainment of academic standards, and effectively prepares students for college and career success. *(May count as final course as part of a CTE pathway towards an endorsement* **if** *the work-based experience is related to student's program of study)*

AMERICORPS **Course #0305**
Grade Placement: 12, Credits: 3 **AHS, CHS, PDHS, THS**
Recommended Prerequisite: Child Development and Instructional Practices.
A work-based internship for students in the AmeriCorps Program, which provides students learning experience in child development while they work directly with young children and career elementary school teachers. During the course of each week, high school students are involved in instruction from the AmeriCorps teacher as well as involved in working in the elementary school with pupils from Grades 1.5.

CTE Additional Course Offerings Information

Cosmetology I/Lab (Dual Credit) **Course #0561**
Grade Placement: 11, Credits: 3 **AHS, CHS, PDHS, THS**
Prerequisite: Student Interest packet must be completed. Limited capacity. Must provide own transportation, Fees apply.
In this course students will provided 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 is a dual credit college course in partnership with Clarendon College. Students will attend class at the Clarendon College Amarillo Cosmetology Centers. (Students must complete the the student interest packet. For this dual credit program and clock 1,000 classroom hours over the course of the 2 year program. There is a financial commitment to cover a portion of the dual credit/cosmetology fees. See your counselor for more information and if you have any questions.**

Cosmetology II/Lab (Dual Credit) **Course #0562**
Grade Placement: 12, Credits: 3 **AHS, CHS, PDHS, THS**
Prerequisite: Cosmetology I. Must provide own transportation, Fees apply.
In this course students will demonstration proficiency in academic, technical, and practical knowledge and skills. The content is designed to provide the occupational skills requires 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 is a dual credit college course in partnership with Clarendon College. Students will attend class at the Clarendon College Amarillo Cosmetology Centers.**