2026-27 HIGH SCHOOL

COURSE DESCRIPTION GUIDE

CISD

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Table of Contents

Click any item in the table contents to navigate to that section.

Table of Contents **2**

Scheduling and Course Selection **4**

High School Graduation Plans **5**

Performance Acknowledgements & Endorsements **6**

Performance Acknowledgements 6

Distinguished Level of Achievement 6

Endorsements 6

Texas College, Career and Military Readiness (CCMR) Requirements 7

Academic and General Information **8**

CISD Grading System for Grades 9-12 8

Enrollment 8

Schedule Changes 8

For Students Entering CISD for the First Time in Grades 9-12 9

Required Courses 9

Elective and Endorsement Courses 9

Gifted and Talented Program 9

Special Education Program 10

English for Speakers of Other Languages (ESOL) 10

Career and Technical Education 10

High School PE and Substitutions 10

Local Credit Courses 10

NCAA (National Collegiate Athletic Association) Eligibility Requirements 11

Additional Ways to Earn Credit 11

- ❏ Credit by Examination (CBE) for Credit Recovery (With Prior Instruction) 11
- ❏ Credit by Examination (CBE) For Acceleration (Without Prior Instruction) 11
- ❏ Correspondence/Virtual Courses 11

Grade Level Advancement and Classification 12

Transcripts 12

Attendance for Credit 12

High School Opportunities for Repeating a Failed Course 12

Advanced Courses & College Credit During High School **13**

Dual Credit (in partnership with Tarrant County College (TCC),
Tarleton State University Fort Worth (TSUFW) and Lamar State College-Port Arthur (LSCPA)) 13

Crowley Collegiate Academy (CCA) 17
Crowley Academy of Aviation, Transportation and Logistics (C-ATL) 17
Advanced Placement (AP) 17
Dual Enrollment (UT OnRamps) 17
Courses for Weighted Credit 18
High School Assessments **20**
STAAR - End Of Course Assessment Program 20
PSAT/NMSQT 20
PSAT 8/9 20
SAT/ACT 20
SAT Subject Area Tests 20
TSIA 20
English / Language Arts (Title contains link to flowchart) **21**
Mathematics (Title contains link to flowchart) **28**
Math-Oriented Courses 34
Science (Title contains link to flowchart) **35**
Social Studies (Title contains link to flowchart) **42**
Languages Other than English (LOTE) **48**
Fine Arts **52**
Athletics / Physical Education **63**
Other Electives **68**
Career and Technical Education **72**

Scheduling and Course Selection

*The **District Course Guide** will be updated by **January** for the **Class of 2030**. These updates will reflect new programs, course offerings, and any state or district revisions to graduation requirements.*

Course advisement for the 2026-2027 school year will occur late this fall or early spring. During this time, students will receive detailed instructions from school staff. However, it's important for both students and parents to take an active role in choosing the right courses for graduation and future career paths.

Counselors are available to help with course advisement and answer any questions. Remember, the courses students choose influence class schedules and teacher assignments for the next year, so thoughtful consideration is crucial. Once school starts, changes can only be made to fix scheduling errors or balance class sizes.

Students should read the Course Description Guide carefully. It includes important information about graduation requirements, available courses, recommended grade levels, and any prerequisites. The courses chosen should align with students' interests, abilities, and future goals.

All 9th-12th grade students will use **Xello** to enter their courses for the upcoming year. Xello is a helpful tool that guides students in exploring their interests and planning their education. For students in grades 6-8, **Skyward** will be used to manage course entries.

If you have any questions about course advisement, please contact the counseling center at your school. Our counselors are here to facilitate, guide and support!

Crowley High School
817-297-5810

North Crowley High School
817-263-1250

Crowley Middle School
817-370-5650

Richard Allie Middle School
817-297-5394

Crowley Ninth Grade
817-297-5845

North Crowley Ninth Grade
817-297-5896

H.F. Stevens Middle School
817-297-5840

Summer Creek Middle School
817-297-5090

High School Graduation Plans

Distinguished Level of Achievement *Crowley ISD Graduation Standard*	Foundation + Endorsements	Foundation Only
26 Credits	***26 Credits***	***22 Credits***
4 credits English ELA I, II, III, plus one credit in any authorized advanced English course	**4 credits English** ELA I, II, III, plus one credit in any authorized advanced English course	**4 credits English** ELA I, II, III, plus one credit in any authorized advanced English course
4 credits Mathematics Algebra I, II, Geometry, plus one credit in any authorized advanced math course	**4 credits Mathematics** Algebra I, Geometry, plus two credits in any authorized advanced math courses	**3 credits Mathematics** Algebra I, Geometry, plus one credit in any authorized advanced math course
4 credits Science Biology, Chemistry, Physics plus one credit in additional advanced courses	**4 credits Science** Biology, Chemistry, Physics plus one credit in additional advanced courses	**3 credits Science** Biology, IPC or advanced science course plus two additional advanced courses
3 credits Social Studies World Geography *or* World History, U.S. History, U.S. Government (.5 credit), Economics (.5 credit)	**3 credits Social Studies** World Geography *or* World History, U.S. History, U.S. Government (.5 credit), Economics (.5 credit)	**3 credits Social Studies** World Geography *or* World History, U.S. History, U.S. Government (.5 credit), Economics (.5 credit)
2 credits World Language or Computer Programming Language (Computer Science)	**2 credits** World Language or Computer Programming Language (Computer Science)	**2 credits** World Language or Computer Programming Language (Computer Science)
1 credit Physical Education	**1 credit** Physical Education	**1 credit** Physical Education
1 credit Fine Arts	**1 credit** Fine Arts	**1 credit** Fine Arts
.5 credits Professional Communication (optional, but may be required by the College/University of your choice)	**.5 credits Professional Communication** (optional, but may be required by the College/University of your choice)	**.5 credits Professional Communication** (optional, but may be required by the College/University of your choice)
7 credits in electives (may include CTE or certification courses)	**7 credits in electives** (may include CTE or certification courses)	**5 credits in electives** (may include CTE or certification courses)
Credit requirements specific to at least one endorsement	*Credit requirements specific to at least one endorsement*	

Performance Acknowledgements & Endorsements

All high school students graduate under the Foundation High School Program (FHSP) graduation plan. Students will also have the opportunity to enhance their graduation plan by earning Performance Acknowledgements, Distinguished Level of Achievement, and Endorsements. Students declare their preferred endorsement area, in writing, by the beginning of their ninth-grade year. All middle school students receive advisement on endorsements, and each student is encouraged to work with their assigned campus counselor for individual guidance.

Performance Acknowledgements

Students can earn performance acknowledgements for dual credit, bilingualism and biliteracy, AP or IB exams, PSAT, SAT or ACT testing, or certifications and licensures. For detailed information, please visit the Counseling Services website at www.crowleyisdtx.org/Page/2134.

Distinguished Level of Achievement

The Distinguished Level of Achievement (DLA) is the highest graduation program in the state of Texas. A student may earn a Distinguished Level of Achievement by successfully completing the curriculum required for the Foundation Graduation Plan with the addition of the following criteria:

- Completion of a coherent sequence of courses in one or more Endorsement(s)
- Four credits in mathematics, including Algebra II
- Four credits in science

Endorsements

Endorsements are made up of four courses or four or more credits taken in a coherent sequence that provide advanced or more in-depth knowledge and skills in a curriculum area. Middle school students should explore career information related to the endorsement areas listed below so they may begin to think about what areas they will want to take more in-depth coursework during their educational career in high school. Students select their endorsement(s) during their 8th grade year and revisit their choices annually under the guidance of a counselor. The endorsement area serves as an entry into a career field, either directly upon high school graduation or a continuance of courses in college enrollment.

A list of endorsements and related disciplines/careers can be found on the following page.

Endorsements
Arts and Humanities - For students interested in careers that require coursework in the following disciplines: Languages other than English (LOTE); Fine Arts; Social Studies; and English
Business and Industry - For students who are interested in careers in the following fields: Animal Science, Agricultural Technology & Mechanical Systems, Plant Science, Architectural Drafting & Design, Construction Technology (Carpentry), Electronics Technology, Graphic Design and Interactive Media, Digital Communications in Audio or Video, Accounting and Financial Services, Business Management, Entrepreneurship, Culinary Arts, Information Technology Support and Services, Networking Systems, Automotive Technology, Distribution, Logistics & Warehousing, Aviation (Pilots), Aviation Maintenance, Cybersecurity, Engineering Foundations, Mechanical and Aerospace Engineering, Programming and Software Development, Cosmetology, Barbering, Public Speaking, Debate, or Journalism
Multidisciplinary Studies - For students who are interested in taking advanced coursework (including Advanced Placement, Dual Credit, and UT OnRamps) in various disciplines. This endorsement may be combined with other endorsements, Crowley Business Academy, and Unmanned Autonomous Vehicles and Systems (UAV/UAS)
Public Services - For students who are interested in careers in the following fields: Early Learning, Teaching and Training, Biomedical Science, Diagnostic and Therapeutic Services, Family and Community Services, Emergency Services, Law Enforcement, and Legal Studies.
STEM - For students who are interested in careers in the following fields: Biomedical Science, Cybersecurity, Engineering Foundations, Mechanical and Aerospace Engineering Programming and Software Development, Mathematics, . *Note: This endorsement requires completion of Algebra II, Chemistry and Physics.*

Note: For the Business & Industry, Public Services, and STEM Endorsements, detailed course information is provided in the CTE section of the High School course guide. State Assessments required for graduation: English I, English II, Algebra I, Biology, US History

Texas College, Career and Military Readiness (CCMR) Requirements

To ensure all students are post-secondary ready for life after high school graduation, Crowley ISD follows the College, Career, and Military Readiness standards set by the Texas Education Agency. Every graduate from the district is highly encouraged to meet at least one of the following standards while enrolled in grades 9-12:

- Meet the criteria of 3 or higher on AP or 4 or higher on IB examinations in any subject
- Meet the college-ready criteria on the TSIA1 and/or TSIA2, SAT, ACT, and/or by successfully completing and earning credit for a college prep course as defined in TEC §28.014, in both ELA and mathematics
- Complete and earn credit for at least three hours of dual-course credits in RLA or mathematics or at least nine hours in any subject
- Earn an associate degree
- Complete an OnRamps dual enrollment course and qualify for at least 3 hours of university or college credit in any subject area
- Earn an approved Industry-Based Certification (IBC) and take 3 or more classes for 4 or more credits within an aligned Program of Study
- Earn a Level I or Level II certificate
- Graduate with completed IEP and workforce readiness
- Enlist in the US Armed Forces
- Graduate under an advanced diploma plan and be identified as a current special education student

Academic and General Information

CISD Grading System for Grades 9-12

Campuses use a weighted numerical grading system to calculate semester grades. In calculating GPA, additional weight is given to courses designated as Advanced Academic courses. Please see the Crowley ISD Guidance and Counseling web page for information on how to calculate GPA. The following chart reflects the CISD grading system for grades 9-12.

A	**90-100**
B	**80-89**
C	**70-79**
F	**69 and below**

Enrollment

A student enrolling in the district for the first time must be accompanied by his/her parent(s) or legal guardian and must provide satisfactory evidence of required immunization, proof of residency (acceptable: utility bill or lease agreement), copy of birth certificate and social security card, and a withdrawal form from the previous school. Guardians must also complete the Skyward application for enrollment through the New Student Online Enrollment portal.

Schedule Changes

All schedule changes requested by the student must be initiated on the campus schedule change form and initiated by the required deadlines.

Requested Schedule Change		
Course Length	**1st Semester**	**2nd Semester**
Year-Long Course	First five instructional days	Last two weeks of first semester until first two instructional days
Semester Course	First five instructional days	First five instructional days of second semester

Schedule changes after the schedule change deadline could result in a loss of credit and the possibility of a delay in graduation. If a concern about improper academic placement occurs after the schedule change deadline, a parent-teacher conference must be held. If parents, teachers, counselors and/or administrator agree that an improper academic placement has been made, after academic interventions have occurred, a schedule change may be requested and possibly granted by campus administrative approval. Any questions about schedules should be referred to the counseling office.

Schedule changes are normally made only under the conditions listed below:

- A student fails a course.
- A change is needed as a result of a credit earned in summer school.
- A change is needed to balance classes during the semester.
- A student has a schedule which is not educationally appropriate.
- A change is needed as a result of a student being elected to or administratively assigned to an activity within the school.
- A change will enable a senior to graduate in the senior year.
- A change that, in the judgment of the principal, is in the best interest of the student and/or the teacher.

Students must request schedule changes within the time frame established by CISD.

For Students Entering CISD for the First Time in Grades 9-12

The following conversion chart shall be used to enter transfer grades if the previous school does not have a conversion chart. CISD will use the conversion chart of the student's previous school if one is provided.

A+	A	A-	B+	B	B-	C+	C	C-	D	F
98	95	92	88	85	82	78	75	72	70	60

Students transferring from unaccredited schools or homeschooling shall be individually assessed. Please see the campus counselor for additional information.

Required Courses

These courses are required to fulfill state educational guidelines. See the graduation plan for required courses. A course may or may not have a prerequisite – a course that must be taken and passed with a minimum grade of 70 prior to the course under consideration.

Elective and Endorsement Courses

In addition to required state courses, students must choose other courses to complete their schedules and their graduation plan. Endorsement courses or elective credits should be chosen according to the students' Personal Graduation Plan (PGP).

Gifted and Talented Program

The Gifted and Talented (GATE) Program within the Crowley Independent School District is an integral part of the district's fundamental commitment to meet the individual needs of all students. The school district is dedicated to the development of each student's talents and abilities. In the ninth through twelfth grade, gifted students are served through advanced courses.

Special Education Program

The Special Education program is designed to assist eligible students in both academic and non-academic areas. Students may graduate by either meeting the curriculum requirements and achieving satisfactory performance on the secondary exit-level assessment or by successfully completing an Individualized Education Program (IEP) that aligns with the graduation criteria outlined in 19 TAC §89.1070. Students with disabilities can choose to graduate by fulfilling the same academic program required for their non-disabled peers or by completing the specific requirements set forth in their IEP, and transition plan.

English for Speakers of Other Languages (ESOL)

All students who enroll in Crowley ISD will complete a home language survey. If this survey indicates that a language other than English is used in the child's home most of the time or used by the child most of the time, a language proficiency assessment will be administered. Students who are found to be limited English Proficient (LEP) and are immigrants with three years or less in the United States, may be enrolled in the ESOL classes as determined by the LPAC (Language Proficiency Committee). The English for Speakers of Other Languages program at the middle school level enrolls English language learners who require English language development instruction and orientation to a new cultural and academic environment. ESOL students receive daily English language development instruction from an ESOL teacher. Students may not remain in a newcomer's/recent immigrant's program for more than two years.

Career and Technical Education

The Career and Technical Education (CTE) Program in CISD is dedicated to preparing young people for careers and college. CTE Programs of Study identify endorsements from secondary school to two- and four-year colleges, graduate school, the workplace, and industry certification so students can prepare for beyond high school. This program enables students to gain entry-level employment in a high-skill, high-wage job and/or to continue their education. Many of the CTE courses and endorsement courses are offered at the Bill R. Johnson CTE Center (BRJ CTEC). Students can attend their home campus and be transported to BRJ CTEC during the school day.

High School PE and Substitutions

According to TEA, students must earn one credit of physical education (PE) and may earn no more than four credits to satisfy state graduation requirements. Certain activities may be substituted for a PE course. Students participating in approved substitution activities for PE credit are required to participate in at least 100 minutes per five-day school week at a moderate or vigorous level.

Activities allowed as PE substitutions include JROTC, athletics, team sport officiating, marching band, cheerleading 1st semester for the first two years, drill team 1st semester for the first two years, approved appropriate private or commercially- sponsored programs and Olympic-level participation and/or competition includes a minimum of 15 hours per week of highly intensive, professional, supervised training.

Local Credit Courses

Local credits are awarded for locally developed courses that are approved for CISD credit only and are not counted toward required state graduation credits.

NCAA (National Collegiate Athletic Association) Eligibility Requirements

To be eligible for Athletic scholarships at any NCAA Division I and II campus during the freshman year of college, students must gain certification from the NCAA Eligibility Center showing that they meet NCAA requirements. More information can be obtained from the Counseling Office and the following website – www.eligibilitycenter.org

Additional Ways to Earn Credit

The State Board of Education has proposed different methods by which a student may earn credit. For more information, please contact your high school's counseling center.

- ❏ **Credit by Examination (CBE) for Credit Recovery (With Prior Instruction)**
  Credit by Exam is designed as an option to earn credit for those students who have attended a class, at least 55 hours (11 weeks) and received a semester average no lower than a 60. The decision to allow a student to earn Credit by Exam must be made by the attendance committee when failure of the course resulted from excessive absences. Students have the opportunity to take an exam through Texas Tech or UT Austin Correspondence School. Applications may be obtained online and approved in the high school counseling center. A score of 70 or better is required for credit. If credit is awarded, grades will be recorded on the student's transcript, computed in the credits toward graduation, and calculated in the student's overall grade average and rank in class. Fees are established by the universities. Student/Parent is responsible for fees charged by Texas Tech or UT Austin.

- ❏ **Credit by Examination (CBE) For Acceleration (Without Prior Instruction)**
  Students who provide evidence of proficiency in a subject area may take a CBE for acceleration. A score of 80% is required for credit per Senate Bill 1. Contact your counselor for more information. If credit is awarded, grades will be recorded on the student's transcript, computed in the credits toward graduation, and calculated in the student's overall grade average and rank in class. Testing dates and registration dates for 2016-2017 are available in each campus counseling office.

- ❏ **Correspondence/Virtual Courses**
  Students in grades 9-12 are eligible to earn credits toward graduation through correspondence/virtual courses. Grades earned in correspondence/virtual courses will be recorded on the student's transcript, computed in the credits toward graduation, and calculated in the student's overall grade average and rank in class. Students may apply for these course options through their high school counseling center. Self- discipline to complete the lessons and taking the final exams within a specific time frame are important factors when considering correspondence/virtual courses.

State approved correspondence courses are offered by Texas Tech and UT Austin. Students are responsible for all course fees and textbook(s). Crowley ISD also offers courses through Connections Academy for enrichment for additional courses not offered on a Crowley ISD campus such as additional foreign languages or Advanced Placement courses. See your high school counseling center for more information.

Crowley ISD also has a full-time virtual academy, Global Prep Academy. For more information, see your high school counseling center.

Grade Level Advancement and Classification

Grade-level classification for students in grades 9-12 shall be determined by course credits earned.

Classification of Students	
Freshman	0 - 5.5 state graduation credits
Sophomore	6 - 11.5 state graduation credits
Junior	12 - 18.5 state graduation credits
Senior	19 or more state graduation credits

Transcripts

Students can make transcript requests electronically using Xello. Below is a link to directions on how to submit a transcript request using the Xello system. If there are further questions about this process, please contact the student's respective counseling office or campus registrar. Students may also make requests through the registrar's office. A transcript is a working document and not complete until graduation.

Xello: How Students Request Transcripts

Attendance for Credit

To receive credit in a class, a student must attend at least 90 percent of the days the class is offered. A student who attends fewer than 90 percent of the days the class is offered may be referred to the attendance review committee to determine whether there are extenuating circumstances for the absences and how the student can regain credit.

High School Opportunities for Repeating a Failed Course

A student may repeat any course provided the student's grade earned in an earlier semester/year is below 70. (or is a senior who is currently enrolled in a course will not be able to mathematically make a 70 for graduation credit). In the event that a student earns a grade below 70 in a course required for graduation, he or she must repeat the course until a grade of 70 is earned in order to receive graduation credit. All grades and all credits attempted/earned are used to calculate the student's grade point averages, unweighted and weighted/calibrated. The highest grade that can be earned for a credit retrieval course is a 70. Credit retrieval in CISD may occur through the following methods:

1. Credit by Exam with prior instruction (board policy EHDB)
2. Correspondence Course
3. Summer School – based on availability of courses and Credit Retrieval Fee Schedule (see Counselor)
4. Repeating the course in the following school year
5. Online Credit retrieval courses offered at the high school based upon available courses during the instructional day or before and after school.

Advanced Courses & College Credit During High School

Crowley ISD offers many opportunities for students to gain college credit while enrolled in high school. These are offered through several higher education partners. Students can begin to take college credit courses as early as ninth grade if the qualifications for the course are met. If the course is through a college, students must also enroll in that college. For more information, visit the College, Career, and Military Readiness web page at crowleyisdtx.org/Domain/659 or contact a counselor or Advanced Academic Coordinator at each high school campus.

Students may gain college credit by taking an advanced academic course, being accepted into Crowley Collegiate Academy, C-ATL, the P-TECH academy, or taking a Career and Technical Education dual credit course or program of study.

Courses for college credit, as well as advanced courses qualifying for weighted GPA consideration, are listed in this section.

Dual Credit (in partnership with Tarrant County College (TCC), Tarleton State University Fort Worth (TSUFW) and Lamar State College-Port Arthur (LSCPA))

Our Dual Credit program is a way for students to earn college credit while attending high school. Students take college-level courses taught by TCC faculty, or in some cases, Crowley ISD teachers who are credentialed by these colleges. These courses satisfy high school graduation requirements and provide college credit at the same time.

Dual Credit in Crowley ISD is free to all students, and dual credit courses are offered for both academic core classes and several CTE programs of study.

Students desiring to take courses directly with TCC or through other institutions will need to pay both tuition and books. Only courses listed below under “Dual Credit Basics/Core Curriculum” will be eligible to earn dual credit if taken outside of the CISD program.

Students who wish to take these courses outside of the CISD Dual Credit program must first gain permission from their counselor to ensure that the credit will be accepted prior to taking the class. Students must then bring their transcript to their counselor after taking the class in order to receive high school credit.

Per Crowley ISD board policy EIC(LOCAL), all dual credit courses are categorized and weighted according to the 5.0 GPA scale.

Students may take dual credit if they meet TCC, TSUFW or LSCPA/CISD guidelines, which includes passing the TSIA 2 and registering as a student at TCC South Campus, Tarleton State University Fort Worth or Lamar State College-Port Arthur. Alternative classes may be offered when the colleges change their numbering, are unable to provide a suitable instructor, or the program design changes as approved by district administration.

***Note: the crosswalks for the dual credit programs can be found in the CTE section of this guide.**

Dual Credit Course Offerings

Dual Credit Basics / Core Curriculum

** Indicates course with TSI requirement*

ARTS 1301	Art Appreciation
DRAM 1310	Introduction to Theater
ECON 2301	Principles of Macroeconomics
ECON 2302	Principles of Microeconomics
*ENGL 1301	Composition 1
*ENGL 1302	Composition 2
*ENGL 2321	British Literature
*ENGL 2326	American Literature
*GOVT 2305	Federal Government
*GOVT 2306	Texas Government
*HIST 1301	United States History 1
*HIST 1302	United States History 2
*MATH 1314	College Algebra
*MATH 1342	Elementary Statistical Methods
MUSIC 1306	Music Appreciation
PSYC 2301	General Psychology
SOCI 1301	Introduction to Sociology
SPAN 2311	Intermediate Spanish 1
SPAN 2312	Intermediate Spanish 2
SPCH 1311	Introduction to Speech Communication
SPCH 1321	Business and Professional Communication

Crowley Collegiate Academy (CCA)

ACCT 2301	Principles of Financial Accounting
ACCT 2302	Principles of Managerial Accounting
BIOL 1406	Biology for Science Majors 1 + Lab
BIOL 1407	Biology for Science Majors 2 + Lab
BIOL 1408	Biology for Non-Science Majors 1 + Lab
BIOL 1409	Biology for Non-Science Majors 2 + Lab
CHEM 1411	General Chemistry 1 + Lab
CHEM 1412	General Chemistry 2 + Lab
BCIS 1305	Business Computer Applications
BUSI 1301	Business Principles
BUSI 2305	Business Statistics
MUSI 1306	Music Appreciation
ECON 2301	Principles of Macroeconomics
ECON 2302	Principles of Microeconomics
ENGL 1301	Composition 1
ENGL 1302	Composition 2
ENGL 2311	Technical Writing
ENGL 2323	British Literature 2
GOVT 2305	Federal Government
GOVT 2306	Texas Government
HIST 1301	United States History 1
HIST 1302	United States History 2
KINE 1164	Introduction to Physical Fitness & Wellness
MATH 1314	College Algebra
MATH 1324	Mathematics for Business & Social Sciences I
MATH 1342	Elementary Statistical Methods
MATH 2412	Precalculus Math
MATH 2413	Calculus I
MATH 2414	Calculus II
PSYC 2301	General Psychology
SOCI 1301	Introduction to Sociology
SPAN 1411	Beginning Spanish I
SPAN 1412	Beginning Spanish II
SPCH 1321	Business and Professional Communication

CTE Automobile Technician Program

Level I Certification

AUMT 1405	Introduction to Automotive Technology
AUMT 1407	Automotive Electrical Systems
AUMT 2317	Automotive Engine Performance Analysis I
	Automotive Engine Performance Analysis II
AUMT 2434	Automotive Electrical Diagnosis and Repair
	Internship - Automotive Mechanics
AUMT 2321	Technology
AUMT 2388	

Aviation Maintenance Technology

Level II Certification

AERM 1101	Introduction to Aviation
AERM 1208	Federal Aviation Regulations
AERM 1303	Shop Practices
AERM 1310	Ground Operations
AERM 1205	Weight and Balance
AERM 1314	Basic Electricity
AERM 1315	Aviation Science
AERM 1351	Aircraft Turbine Engine Theory
AERM 1344	Reciprocating Engines
AERM 1456	Powerplant Electricity
AERM 2351	Aircraft Turbine Engine Overhaul

Students completing AUMT 1305, 1407, 2317 earn an Occupational Skills award. Students who complete all 5 courses receive a Level 1 Engine Analysis Technician Certificate.	AERM 1357 Fuel Metering and Induction Systems AERM 1340 Aircraft Propellers AERM 2547 Aircraft Reciprocating Engine Overhaul AERM 2252 Aircraft Powerplant Inspection
Criminal Justice Program ***Associate Degree***	**Business Certification** ***Level I Certification***
CJLE 1345 Intermediate Crime Scene Investigation CJSA 1347 Police Organization and Administration CJSA 2388 Internship in Criminal Justice and Safety Studies CRIJ 1301 Introduction to Criminal Justice CRIJ 1306 Court Systems and Practices CRIJ 1307 Crime in America CRIJ 1310 Fundamentals of Criminal Law CRIJ 1313 Juvenile Justice System CRIJ 2313 Correctional Systems and Practices CRIJ 2314 Criminal Investigation CRIJ 2323 Legal Aspects of Law Enforcement CRIJ 2328 Police Systems and Practices To earn the 60-hour Associate's degree, students will need to complete the courses listed above as well as: ENGL 1301 & 1302, GOVT 2305 & 2306, MATH 1314, SOCI 1301, SPCH 1321.	ACCT 2301 Principles of Financial Accounting ACCT 2302 Principles of Managerial Accounting BUSI 1301 Business Principles BUSI 2301 Business Law ECON 2301 Principles of Macroeconomics ECON 2302 Principles of Microeconomics MRKG 1311 Principles of Marketing BMGT 1305 Communications in Management Students completing all 8 courses will receive a Level 1 Business 1 Certificate.
Logistics and Supply Chain Management ***Associate Degree | Level I Certification***	**Unmanned Autonomous Vehicles/Systems** ***Level I Certification***
LGMT 1319 Intro to Business Logistics IBUS 1301 Principles of Exports LGMT 1325 Warehouse and Distribution Center Management IBUS 1302 Principles of Imports BCIS 1305 Business Computer Applications SPCH 1321 Intro to Speech Comm. LMGT 1323 Domestic and International Travel LMGT 2334 Principles of Traffic Mgmt LMGT 2371 Leadership BUSI 2301 Business Law MUSI 1306 Music Theory MRKG 1311 Principles of Marketing 12th BMGT 1313 Principles of Purchasing BMGT 2331 Principles of Quality Mgmt BMGT 1331 Prod Op Mgmt LGMT 2388 Internship Students completing 15 hours will receive a Level 1 certification.	Robotics I ***(HS Course)*** Intro to UAV ***(HS Course)*** GISC 1402 Understanding GIS GISC 2401 Data Acquisition and Analysis in GIS GISC 2402 GIS with Raster Systems GISC 2404 GIS with Vector Systems GISC 2420 Intermediate GIS

To earn the 60-hour Associate's degree, students will need to complete the courses listed above as well as: ENGL 1301, MATH 1314, ACCT 2301, & ECON 2301

Pharmacy Technician ***Level I Certification***		**Culinary Arts Program** ***Level I Certification***	
PHRA 1301	Introduction to Pharmacy	CHEF 1301	Basic Food Pre
PHRA 1305	Drug Classification	CHEF 1305	Sanitation and Safety
PHRA 1349	Institutional Pharmacy Practice	HAMG 1321	Introduction to Hospitality Industry
PHRA 1313	Community Pharmacy Practice	RSTO 1313	Hospitality Supervision
PHRA 1345	Compounding Sterile Preparations	PSTR 1301	Fundamentals of Baking
PHRA 1202	Pharmacy Law	CHEF 1310	Garde Manager
PHRA 1209	Pharmaceutical Math I	CHEF 2331	Advanced Food Preparation
PHRA 1243	Pharmacy Technician Certification Review	CHEF 1264	Practicum
PHRA 1247	Pharmaceutical Math II		
PHRA 1260	Clinical Pharmacy Technician/Assistant		

Computer Programming *Associate Degree* / Level I Certification / Level II Certification		**Electronics Technology** Level I Certification
BCIS 1305	Business Computer Applications	*No longer available.
MUSI 1306	Music Appreciation	
SPCH 1321	Business & Professional Communication	
ITNW 1309	Fund of Cloud Computing	
COSC 1436	Prog Fundamentals I	
ITSE 1479	Intro to Scripting Languages	
COSC 1437	Prog Fundamentals II	
ITSE 2417	Java Programming	
CPMT 1403	Intro to Computer Tech	
ITSY 1300	Fund of Info Security	
ENGL 1301	Composition I	
COSC 2436	Prog Fundamentals III	
ITNW 1425	Fund Networking Technologies	
1TSE 2409	Database Programming	
ITSE 1450	System Analysis & Design	
MATH 1314	College Algebra	
ECON 2301	Principles of Macroeconomics	

Crowley Collegiate Academy (CCA)

Crowley Collegiate Academy (CCA) is an early college education program that provides high school age students with a seamless pathway from high school to college. All of the scholar's classes are taken at CCA or TCC. This requires dual enrollment in high school and Tarrant County College, with each scholar demonstrating mastery of the knowledge and skills necessary for success (TSI-A and other requisite tests). The strengths of this school include: its size, the collegiate environment, collaboration between faculty, development of career-focused and personalized educational plans for students, and access to the resources of one of Texas' premier community colleges.

Scholars who graduate from CCA have the opportunity to earn their high school diploma, accumulate up to 63 college credits and earn an Associate's Degree, transferable to a senior college/university or leading to employment. CCA provides strong support to scholars and their families to obtain entrance to, and success in, college or the workplace. Our mission is to develop life-long learners. CCA scholars and staff commit to build relationships through mutual respect and promote a growth mindset, which includes a learning style of grit and integrity.

For more information about CCA, please visit the CCA website at https://www.crowleyisdtx.org/cca or email us at CCA.Information@crowley.k12.tx.us.

Crowley Academy of Aviation, Transportation and Logistics (C-ATL)

C-ATL is housed at Bill R. Johnson CTE Center and is an integration of academic and CTE courses. Students who are enrolled in C-ATL are able to concentrate on careers in Aerospace and Aviation. Opportunities are provided in the following career pathways--Aviation Maintenance, Aviation Flight, Supply Chain Management, Computer Programming, and Unmanned Autonomous Systems and Vehicles (UAV/UAS).

Advanced Placement (AP)

Advanced Placement (AP) courses follow a curriculum which is outlined by the College Board and reflects the appropriate college-level material required for success on the College Board AP exams given each spring. It is the responsibility of the student to inquire if their college of choice accepts AP exam credit and to request that credit is given upon enrollment. Crowley ISD covers the cost of the AP Exam when a student is enrolled in the course. Students must enroll in AP Classroom by the end of October (for year-long and fall semester only courses) and/or the end of January (for spring semester only courses) so that an exam can be ordered before the College Board deadline. If a student would like to take additional exams, they will be responsible for the cost. Students must speak with their AP coordinator to ensure that the exam can be offered. Payments must be made by the end of October so that a test can be ordered.

Dual Enrollment (UT OnRamps)

UT OnRamps is a dual enrollment program for high school students to engage in authentic college experiences that offer both high school graduation requirements and college credit. Courses are taught by CISD teachers who are credentialed by the University of Texas at Austin. UT OnRamps courses are open enrollment and with free tuition. More information can be found at onramps.utexas.edu.

Courses for Weighted Credit

In addition to the dual credit courses listed above (all of which are weighted according to the 5.0 GPA scale), the advanced courses listed below receive a weight of either 4.5 or 5.0 when calculating a student's GPA and class rank per board policy EIC(LOCAL).

Advanced Courses Weighted on a 4.5 Scale	
Content	**Course Name**
English Language Arts	Honors English I & II
Science	Honors Biology | Honors Chemistry
Mathematics	Honors Algebra I | Honors Geometry
Advanced Languages	Honors French II & III Honors German II & III Honors Spanish II & III

Advanced Courses Weighted on a 5.0 Scale	
Content	**Course Name**
English Language Arts	AP English III - Language and Composition AP English IV - Literature and Composition OnRamps English III/IV Creative Writing Literary Genres - Multicultural Literature Humanities Humanities II (Independent Study in English - Analysis of Visual Media) Debate III COMM 1315 (Public Speaking)
Science	AP Biology | Honors Chemistry | AP Environmental Science | OnRamps Chemistry | OnRamps Physics | OnRamps Biology | OnRamps Physics II
Mathematics	AP Calculus AB | AP Calculus BC | AP Statistics Independent Study in Mathematics - Calculus| OnRamps Statistics OnRamps Pre-Calculus | OnRamps College Algebra (Algebra II) Dual Credit Math 1342 (Elementary Statistics)
Social Studies/History	AP Macroeconomics | AP US Government and Politics AP Comparative Government | AP US History | AP European History AP Psychology | AP Human Geography | AP World History AP African American Studies | OnRamps US History | OnRamps Economics| OnRamps Government| Business 1307 (Personal Financial Literacy)

Advanced Languages	AP French IV (Language) | AP German IV (Language) AP Spanish IV (Language) | AP Spanish V (Literature)
Computer Science	Computer Science I, II & III AP Computer Science A AP Computer Science Principles
Fine Arts	AP Music Theory | Art IV | AP 2-D Art and Design | AP 3-D Art and Design AP Drawing | Dance IV | Band IV | Jazz Studies IV | Color Guard IV | Choir IV Vocal Ensemble IV | Theatre Arts IV| AP Art and Design | Theatre Production IV
Project Lead the Way	Introduction to Engineering (IED) | Principles of Engineering (POE) Digital Electronics (DE) | Aerospace Engineering (AE)

	Engineering Design & Development (EDD) Biomedical Science | Human Body Systems | Medical Interventions Practicum of STEM
Dual Credit	All dual credit courses receive weighted credit (5.0 scale)

High School Assessments

STAAR - End Of Course Assessment Program

Starting with the 9th grade class of 2011-2012, students are required to take the STAAR EOC (State of Texas Assessments of Academic Readiness End-of-Course) exams. Students must successfully demonstrate proficiency at the end of Algebra I, United States History, English I, English II, and Biology.

PSAT/NMSQT

This test is designed to test the verbal, mathematical, and written skills of students. This test is taken in preparation for the SAT during the junior year. National Merit Scholarships are available if the student's junior level scores qualify him/her to be a Finalist. **ALL eighth and ninth graders** take the PSAT as practice for the junior year where the scores count for scholarship consideration. This test is given once per year in mid-October. Tests are offered during the school day.

PSAT 8/9

This test measures skills students need to be on track for success in college and careers. The PSAT 8/9 is given during middle school and the PSAT 8/9 is given during the ninth -grade year. Tests are offered during the school day.

SAT/ACT

Most colleges and universities require one of two major entrance exams: The American College Testing Program (ACT) and/or the Scholastic Aptitude Test (SAT). Students usually take these at the end of the junior year or at the beginning of the senior year. Tests are offered once a calendar year during the school day. A schedule of additional testing dates is available on the College Board website. Websites are www.actstudent.org and www.collegeboard.com.

SAT Subject Area Tests

Some colleges require students to take the SAT subject area tests. These are subject tests given on specific SAT dates. Check with the college your student plans to attend to verify whether these tests are needed for admission.

TSIA

The Texas Success Initiative Assessment 2.0 (TSIA2) is a series of placement tests for students enrolling in public colleges and universities in Texas. The tests help Texas schools determine whether students are ready for college-level courses in the areas of reading, writing, and math. In CISD, we begin opportunities for testing at the end of the 8th grade year and continue through 12th grade. Please see your campus testing coordinator or counselor for more information.

English / Language Arts

English I Course #: 01090100
Recommended Grade Placement: 9 1 Credit

Students in this course focus on vocabulary, close reading, critical thinking, and analysis in diverse, multi-genre, thematic units from American and world literature sources. Students engage in the embedded research process and use the writing process to compose multiple texts employing appropriate revising and editing conventions.

English I Honors Course #: 01090175
Recommended Grade Placement: 9 1 Credit

Students develop close reading, analytical and evidence-based writing, and language practices essential for immediate relevance and future college coursework. Students apply vocabulary, critical thinking, and analysis within and across increasingly complex texts. Students engage in the investigative research process and use the writing process to compose multiple texts employing appropriate revising and editing conventions. *Honors courses receive weighted GPA credit.*

English for Speakers of Other Languages I (ESOL I) Course #: 01220100
Recommended Grade Placement: 9 1 Credit
Prerequisite: Qualify through testing and immigrant status, LPAC placement

This course provides listening, speaking, reading, and writing activities from simple to complex in order to increase the students' comprehension and ability to express themselves. The focus will be on grammar and literature for the grade level. *This course is designed for students who are speakers of other languages who have limited English skills, have immigrant status, and have been in the United States three years or less.* **Students taking ESOL I should not be scheduled in English I. The state PEIMS number is the same for both courses.**

English II Course #: 01100200
Recommended Grade Placement: 10 1 Credit
Prerequisite: English I

Students in this course focus on vocabulary, close reading, critical thinking, and analysis in diverse, multi-genre, thematic units from American and world literature sources. Students engage in the embedded research process and use the writing process to compose texts employing appropriate revising and editing conventions.

English II Honors Course #: 01100250
Recommended Grade Placement: 10 1 Credit
Prerequisite: English I

Students develop close reading, analytical and evidence-based writing, and language practices essential for immediate relevance and future college coursework. *Honors courses receive weighted GPA credit.*

English For Speakers Of Other Languages II (ESOL II) Course #: 01220200

Recommended Grade Placement: 10 1 Credit

Prerequisite: Qualify through testing and immigrant status, LPAC placement

This course provides listening, speaking, reading, and writing activities from simple to complex in order to increase the students' comprehension and ability to express themselves. Each course focuses on grammar and literature for the grade level. *This course is for students who are speakers of other languages who have limited English skills, have immigrant status, and have been in the United States three years or less.* Students taking ESOL II should not be scheduled in English II. The state PEIMS number is the same for both courses.

English III Course #: 01110300

Recommended Grade Placement: 11 1 Credit

Prerequisite: English II

Students in this course focus on vocabulary, close reading, critical thinking, and analysis in diverse, multi-genre, thematic units from American literature sources. Students engage in the embedded research process and use the writing process to compose multiple texts employing appropriate revising and editing conventions.

English Language & Composition – Advanced Placement Course #: 01110350

Recommended Grade Placement: 11 1 Credit

Prerequisite: English II (Honors English II highly recommended)

***Only offered at Global Prep Academy**

English Language and Composition Advanced Placement aligns to an introductory college-level rhetoric and writing course which is designed to prepare the motivated student to achieve success on the AP English Language and Composition Exam. Students focus on the development and revision of evidence-based analytic and argumentative writing, the rhetorical analysis of nonfiction texts, and the decisions writers make as they compose and revise. Students evaluate, synthesize, and cite research to support their arguments. Students also read and analyze rhetorical elements and their effects in nonfiction texts-including images as forms of text-from a range of disciplines and historical periods. Students enrolled in Advanced Placement courses are required to take the Advanced Placement exam for each course in order to receive credit. *AP courses receive weighted GPA credit.*

English IV Course #: 01120400

Recommended Grade Placement: 12 1 Credit

Prerequisite: English III

Students in this course focus on vocabulary, close reading, critical thinking, and analysis in diverse, multi-genre, thematic units from British literature sources. Students engage in the embedded research process and use the writing process to compose multiple texts employing appropriate revising and editing conventions.

English Literature & Composition – Advanced Placement Course #: 01120450

Recommended Grade Placement: 12 1 Credit

Prerequisite: English III (AP English III highly recommended)

English Literature and Composition Advanced Placement aligns to an introductory college-level literature and writing course which is designed to prepare the motivated student to achieve success on the AP English Literature and Composition Exam. At the senior level, AP students focus on developing the skills of critical

literary analysis and composition as they repeatedly analyze poetry and prose from various time periods. Students compose expository, analytical, and argumentative essays that require them to analyze and interpret literary works. This course requires extensive reading, writing, and preparation outside of the regular school day and satisfies the English IV graduation requirement. **Students enrolled in Advanced Placement courses are required to take the Advanced Placement exam for each course in order to receive credit.** *AP courses receive weighted GPA credit.*

University Of Texas OnRamps English III/IV Course #: 01110315
Recommended Grade Placement: 11 or 12 1 Credit
Prerequisite: English II and/or English III

OnRamps English is a course in argumentation that situates rhetoric as an art of civic discourse. It is designed to enhance the student's ability to analyze the various positions held in any public debate and to advocate the student's position effectively. The student will also explore the ethics of argumentation, explaining what it means to "fairly" represent someone with whom you disagree, or how to responsibly address a community with particular values and interests. The student will have a university-level learning experience while still in high school and the opportunity to earn college credit. *Dual enrollment courses receive weighted GPA credit.*

Journalism Course: 01220600
Recommended Grade Placement: 9-12 1 Credit

This course represents an overview of the field of journalism and is a writing intensive and critical thinking course. Students should have a good foundation in writing. Topics covered include the history of the American media; fundamentals of news; feature, sports and editorial writing; introductions to newspaper editing, layout and design; desktop publishing; yearbook production; and students who take this course may qualify to apply for any of the Advanced Journalism classes upon instructor approval.

Photojournalism Course #: 01220650
Recommended Grade Placement: 9-12 ½ Credit

This course offers students the opportunity to explore the fundamentals of photography with a journalistic angle. This semester course provides the basic instruction in camera techniques as related to journalism, darkroom techniques or digital editing techniques, and photo composition. Students will practice techniques of taking photographs, developing film, and printing pictures. Students with high achievement may be selected for Newspaper and/or Yearbook staff and are expected to take pictures at school related events after school and on weekends. UIL and other competitions are strongly encouraged. Students must provide their own digital camera, batteries, and flash for the course.

Advanced Broadcast Journalism I - III Course #: 01220640,
Recommended Grade Placement: 10-12 01220645, 01220646
Prerequisite: Journalism 1 Credit

This course offers students the opportunity to explore the fundamentals of radio and television broadcasting with a journalistic angle. Students will practice techniques of planning, producing, directing, editing, and finalizing audio and video segments. Skills stressed are video graphic composition, lighting, organization, collaboration work, and creative/technical editing. Students will learn to write in broadcast style using scripts and storyboards. UIL and other competitions are strongly encouraged. Students may produce the daily announcement news show and many other video and audio productions.

Advanced Journalism - Newspaper I - III
Recommended Grade Placement: 10-12
Prerequisite: Journalism

Course #: 01220621, 01220622, 01220623
1 Credit

These courses are concerned primarily with publishing a school newspaper. Students study all phases of journalism including desktop publishing programs. Improving writing skills and interviewing techniques are major concerns as are all types of communication. Also included is advanced study of feature, column, editorial and sports writing. Students must apply and follow instructor guidelines. UIL and other competitions are strongly encouraged. Students will generate revenue through advertising to support the costs of newspaper production. Students must also be able to work after school and at school-related events on weekends to meet deadlines.

Advanced Journalism - Yearbook I - III
Recommended Grade Placement: 10-12
Prerequisite: Journalism

Course #: 01220671, 01220672, 01220673
1 Credit

This course provides the student with opportunities to study elements and processes of producing the school yearbook. Students will complete layouts, write copy, and incorporate pictures and artwork on desktop publishing programs. Other skills stressed include page planning/design, advertising sales, and photojournalism. Students should have a good foundation in writing. Students must apply and be willing to follow instructor guidelines. Students must attend a summer workshop and be willing to work a minimum of 15 hours a week outside of class to complete pages for a deadline. Students must be able to multitask and work on strict deadlines. UIL and other competitions are strongly encouraged.

Bible As Literature
Recommended Grade Placement: 10-12

Course #: 01220720
½ Credit

Students in this elective enrichment course learn biblical content, characters, poetry, and narratives that are prerequisites to understanding contemporary society and culture, including literature, art, music, mores, oratory, and public policy. Students familiarize themselves with the history and literary style of the Hebrew Scriptures (Old Testament) and New Testament and the influence of each on law, history, government, literature, art, music, customs, morals, values, and culture. Students also apply the foundational skills of organization, critical thinking, reading, and writing.

Creative Writing
Recommended Grade Placement: 11-12
Prerequisite: English II

Course #: 01220700
½ Credit

Students in this elective course participate in an intensive writers' workshop environment. Strategies and activities include practice with and examination of a variety of genres, including short stories and poetry, development of peer and self-editing techniques, and numerous opportunities to publish. This writing course is designed especially to challenge the imagination and creativity of the student by encouraging spontaneity of expression. *This course receives weighted GPA credit.*

Literary Genres – Women's Studies Course #: 01220735
Recommended Grade Placement: 11-12 ½ Credit
Prerequisite: English II

Students in this elective course analyze the literary and film genres written about and by women. Works include both classical and contemporary selections, ranging from Greek and Roman writers to contemporary authors, such as Toni Morrison, Annie Dillard, Judith Viorst, Barbara Kingsolver, Maya Angelou, Amy Tan, Alice Walker, Gloria Steinem, and Betty Freidan. Students explore the history and culture of women throughout history as well as the dynamics of the American Women's Movement of the 60s and 70s. Students also explore the emotional, financial, legal, and political status of women in the world today. *This course receives weighted GPA credit.*

Humanities I – The 1960s Course #: 01220800
Recommended Grade Placement: 10-12 ½ Credit

This is an interdisciplinary course in which students recognize writing as an art form. It includes the study of the art, music, literature, social and political events of the 1960s. Humanities is a rigorous advanced academic course of study in which high school students respond to aesthetic elements in texts and other art forms through outlets such as discussions, journals, oral interpretations, and dramatizations. A companion to this course is Analysis of Visual Media. *This course receives weighted GPA credit.*

Humanities II – Analysis Of Visual Media Of The 1960s Course #: 01220850
Recommended Grade Placement: 11-12 ½ Credit
Prerequisite: Humanities I

In this second semester course, Students will analyze the decade of the 1960s through the study of film, magazines, books, and works of art. Students will be expected to develop and present a major multimedia project. A companion to this course is Humanities. *This course receives weighted GPA credit.*

Competitive Speech Course #: 01220591
Recommended Grade Placement: 10-12 1 Credit

This class will focus on the academics of speech, oral interpretation, poetry, prose, original oratory, humorous interpretation, and impromptu speaking. In order to have full participation in the democratic process, students must have a good understanding of public dialogue. Students must learn the concepts and skills related to preparing and presenting public messages and to analyzing and evaluating the messages of others.

Debate I Course #: 01220571
Recommended Grade Placement: 9-12 1 Credit

Gaining a general understanding of the major forms of debate, learning to prepare and present actual debates, and studying logic and reasoning are the objectives of this course in argumentation. Students are introduced to both Lincoln Douglas and Policy debate techniques. Focus will be on research skills and critical thinking in order to prepare for UIL and TFA/NFL competition. The competitive debate teams will be formed in these classes.

Debate II Course #: 01220572
Recommended Grade Placement: 10-12 1 Credit

Gaining a general understanding of the major forms of debate, learning to prepare and present actual debates, and studying logic and reasoning are the objectives of this course in argumentation. Students continue to use both Lincoln Douglas and Policy debate techniques. Focus will be on research skills and critical thinking in order

to prepare for UIL and TFA/NFL competition. The competitive debate teams will be formed in these classes. Debate II builds on the fundamentals and continues to develop debate skills. Scholarships may be earned by UIL and TFA competitions.

Debate III Course #: 01220573
Recommended Grade Placement: 11-12 1 Credit

Gaining a general understanding of the major forms of debate, learning to prepare and present actual debates, and studying logic and reasoning are the objectives of this course in argumentation. Students continue to use both Lincoln Douglas and Policy debate techniques. Focus will be on research skills and critical thinking in order to prepare for UIL and TFA/NFL competition. The competitive debate teams will be formed in these classes. Scholarships may be earned by UIL and TFA competitions. *This course receives weighted GPA credit.*

Public Speaking I Course #: 01220551
Recommended Grade Placement: 10-12 1 Credit

Public Speaking I-III are advanced speech courses designed for those students interested in competitive forensic activities who wish to compete in Texas Forensic Association and UIL public speaking tournament events. Students will develop advanced communication skills through informative and persuasive speaking, modern oratory, domestic and foreign extemporaneous speaking, argumentation and debate, and various oral interpretation events. Scholarships may be earned by UIL and TFA competitions. *Students enrolled in this course will be required to attend tournaments.*

Public Speaking II Course #: 01220552
Recommended Grade Placement: 11-12 1 Credit

Public Speaking I-III are advanced speech courses designed for those students interested in competitive forensic activities who wish to compete in Texas Forensic Association and UIL public speaking tournament events. Students will develop advanced communication skills through informative and persuasive speaking, modern oratory, domestic and foreign extemporaneous speaking, argumentation and debate, and various oral interpretation events. Scholarships may be earned by UIL and TFA competitions. *Students enrolled in this course will be required to attend tournaments.*

Public Speaking III Course #: 01220553
Recommended Grade Placement: 12 1 Credit

Public Speaking I-III are advanced speech courses designed for those students interested in competitive forensic activities who wish to compete in Texas Forensic Association and UIL public speaking tournament events. Students will develop advanced communication skills through informative and persuasive speaking, modern oratory, domestic and foreign extemporaneous speaking, argumentation and debate, and various oral interpretation events. Scholarships may be earned by UIL and TEA competitions. *Students enrolled in this course will be required to attend tournaments.*

College Readiness and Study Skills Course #: 01220750
Recommended Grade Placement: 9-10 ½ Credit

The purpose of the College Readiness and Study Skills course is to sharpen reading skills and hone study/note taking skills through cross-curricular reading. This course will help prepare students for college level work including high school AP and Honors courses and will be helpful for ESL students. This course will be a companion to the Practical Writing Skills course.

Practical Writing Skills Course #: 01220775

Recommended Grade Placement: 10 ½ Credit

This course will complement the writing skills learned in English I and II by preparing students for various types of communication for school, the job market, as well as higher education. This course will emphasize the mechanics and conventions of writing and will help students apply English grammar appropriately and effectively. The Practical Writing Skills course will be a companion to the College Readiness and Study Skills course.

COMM 1315 (Public Speaking) Course #: 07224257

Recommended Grade Placement: 10-12 ½ Credit

This integrated course is designed to equip students with the communication competency and academic discipline necessary for post-secondary success. Students will develop advanced communication skills through informative and persuasive speaking while also sharpening reading skills and honing study/note taking skills through cross-curricular reading. This course will help prepare students for college level work including high school AP and Honors courses and will be helpful for ESL students. *This course receives weighted GPA credit.*

Mathematics

Algebra I

Recommended Grade Placement: 9 Course #: 02090100

Prerequisite: 8th Grade Math or its equivalent 1 Credit

In this course, students will deepen their understanding of functions to explore function families, including linear, exponential, quadratic, and absolute value. Linear relationships will be studied in depth, including linear functions, linear equations, linear inequalities, and systems of linear equations and inequalities. Students will also deepen their understanding of power properties, exponential functions, and applications of exponential functions. Quadratic functions and quadratic equations will also be explored.

Algebra I Honors Course #: 02220175

Recommended Grade Placement: 8 1 Credit

Prerequisite: 8th grade math or equivalent

In this course, students will deepen their understanding of functions to explore function families, including linear, exponential, quadratic, and absolute value. Linear relationships will be studied in depth, including linear functions, linear equations, linear inequalities, and systems of linear equations and inequalities. Students will also deepen their understanding of power properties, exponential functions, and applications of exponential functions. Quadratic functions and quadratic equations will also be explored. Students will extend their learning in this Honors class by applying their knowledge to a series of performance tasks. Honors courses receive weighted GPA credit.

Algebra Lab Course #: 11090125

Recommended Grade Placement: 9 1 Local Credit

Prerequisite: 8th grade math or its equivalent

Algebra Lab is a program designed for students who are more than one year below grade level on a standardized achievement test and failed to demonstrate mastery on one or more areas of the most recent state assessment test. The course will cover the same material as Algebra I; however, the pace of the class will be geared to allow for mastery of the material. Abstract concepts will be introduced through the use of manipulatives. Successful completion of the course will result in 1 local credit for the Lab. *Local credits will not be used in calculating GPA.*

Geometry Course #: 02100200

Recommended Grade Placement: 10 1 Credit

Prerequisite or Corequisite: Algebra I

In this course, students will deepen their understanding of geometric concepts that they began to develop in middle school. Students will begin by reasoning algebraically to verify simple geometric theorems. Students will then deepen their understanding of congruence by constructing and deconstructing shapes and defining the line and angle relationships that will ultimately justify congruence. Students will then develop a stronger understanding of similarity and proportionality using new strategies including trigonometric ratios. Students will explore circles and their attributes, including cross sections, and will use that knowledge to develop a better understanding of volume. Finally, students will use probability to determine the likelihood of certain outcomes, or end results. Proofs will be utilized throughout the year so that students can build a strong understanding of all these geometric concepts.

Geometry Honors Course #: 02090275

Recommended Grade Placement: 9-10 1 Credit

Prerequisite or Corequisite: Algebra I

In this course, students will deepen their understanding of geometric concepts that they began to develop in middle school. Students will begin by reasoning algebraically to verify simple geometric theorems. Students will then deepen their understanding of congruence by constructing and deconstructing shapes and defining the line and angle relationships that will ultimately justify congruence. Students will then develop a stronger understanding of similarity and proportionality using new strategies including trigonometric ratios. Students will explore circles and their attributes, including cross sections, and will use that knowledge to develop a better understanding of volume. Finally, students will use probability to determine the likelihood of certain outcomes, or end results. Proofs will be utilized throughout the year so that students can build a strong understanding of all these geometric concepts. Students will extend their learning in this Honors class by applying their knowledge to a series of performance tasks. Honors courses receive weighted GPA credit.

Algebra II Course #: 02110300

Recommended Grade Placement: 10-11 1 Credit

Prerequisite: Algebra I

A continuation of the topics studied in Algebra I, this course will extend the development of the real number system and will include a study of the complex numbers as a mathematical system. Students will study the ideas of relations and functions, with an emphasis on graphing; a variety of representations as well as a variety of techniques (including the graphing calculator) will be used to solve problems. Matrices and determinants will be introduced. The equations and graphs of conic sections will also be studied. The students who plan to attend college should study Algebra II since familiarity with mathematical concepts and an understanding of a structured approach to a discipline will be needed.

University of Texas OnRamps College Algebra (Advanced Algebra II) Course #: 02220401

Recommended Grade Placement: 10-11 1 Credit

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. 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. Students will experience high quality curriculum designed by the faculty of the University of Texas at Austin. The student will have a university-level learning experience while still in high school with the opportunity to earn college credit. *Dual enrollment courses receive weighted GPA credit.*

Algebraic Reasoning Course #: 02100280

Intended Grade Placement: 10 1 Credit

Prerequisite: Algebra I

In Algebraic Reasoning, students will continue to build 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. *This course is intended for sophomore students who did not pass the Algebra I STAAR EOC.*

Pre-Calculus Course #: 02110400

Recommended Grade Placement: 11-12 1 Credit

Prerequisites: Algebra I, Geometry and Algebra II

Pre-Calculus is a comprehensive study of the properties and applications of trigonometric functions, including trigonometric ratios, their graphs, identities, and inverse functions. Other topics include conic sections, polynomial functions, exponential functions, logarithmic functions, sequences and series, complex numbers, and vectors. Students will experience a more in-depth study of the previously mentioned topics.

University of Texas OnRamps PreCalculus (Advanced PreCalculus) Course #:02220400

Recommended Grade Placement: 11-12 1 Credit

Prerequisites: Geometry and Algebra II

In "Discovery Precalculus-A Creative and Connected Approach," students deepen and extend their knowledge of functions, graphs, and equations from their high school algebra and geometry courses so that 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. Students will experience high quality curriculum designed by the faculty of the University of Texas at Austin. The student will have a university-level learning experience while still in high school *with the opportunity to earn college credit. Dual enrollment courses receive weighted GPA credit.*

Advanced Quantitative Reasoning (AQR) Course #: 02120575

Recommended Grade Placement: 12 1 Credit

Prerequisite: Geometry and Algebra II

This course was developed as a fourth-year math course. Its primary purpose is to prepare students for non-math-intensive college majors, technical training, or for a range of career options in the workplace. The primary focus includes the analysis of information using statistical methods and probability, modeling change and mathematical relationships, mathematical decision making in finance and society, and spatial and geometric modeling for decision making. Students will learn to become critical consumers of the quantitative data that surrounds them every day, knowledgeable decision makers who use logical reasoning, and mathematical thinkers who can use their quantitative skills to solve problems related to a wide range of situations.

Statistics Course #: 02120750

Recommended Grade Placement: 12 1 Credit

Prerequisite: Algebra I

In this course, 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.

Statistics – Advanced Placement Course #: 02120800

Recommended Grade Placement: 11-12 1 Credit

Prerequisite: Pre-calculus or concurrent enrollment in AP Statistics and Pre-Calculus

***Only offered at Global Prep Academy**

AP Statistics is a course offered to students who wish to complete studies in secondary school equivalent to a one semester, introductory, non-calculus-based college course in statistics. The purpose of the course is to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad themes: 1) exploring data, 2) planning a study, 3) anticipating patterns, 4) statistical inference. Students who successfully complete the course and the exam may receive credit and/or advanced placement for a one-semester introductory college statistics course. **Students enrolling in Advanced Placement courses will be required to take the Advanced Placement exam for each course in order to receive credit.** *AP courses receive weighted GPA credit.*

University of Texas OnRamps Statistics Course #: 02220402

Recommended Grade Placement: 11-12 1 Credit

Prerequisite: Algebra II

Basic probability and data analysis for the sciences. Subjects include randomness, sampling, distributions, probability models, inference, regression, and nonlinear curve fitting. Students will experience high quality curriculum designed by the faculty of the University of Texas at Austin. The student will have a university-level learning experience while still in high school with the opportunity to earn college credit. *Dual enrollment courses receive weighted GPA credit.*

Dual Credit Math 1342 (Elementary Statistics) Course #: 07222495

Recommended Grade Placement: 10-12 1 Credit

An introduction to statistics and the application of statistics to business decision making. Students will use statistics to make business decisions. Students will determine the appropriateness of methods used to collect data to ensure conclusions are valid. This course counts for a math credit. Dual credit courses receive weighted GPA credit.

Calculus - Advanced Placement AB Course #: 02120625

Recommended Grade Placement: 12 1 Credit

Prerequisite: Pre-calculus or OnRamps Precalculus

Advanced Placement Calculus AB consists of a full academic year of work in calculus and related topics comparable to one semester of calculus in colleges and universities. It is expected that students who take AP Calculus will seek college credit or placement from institutions of higher learning. The year's course will be devoted to the topics in differential and integral calculus to adequately prepare students for the Advanced Placement Calculus AB examination. This course requires a graphing utility. **Students enrolling in Advanced Placement courses will be required to take the Advanced Placement exam for each course in order to receive credit.** *AP courses receive weighted GPA credit.*

Calculus – Advanced Placement BC Course #: 02120650

Recommended Grade Placement: 12 1 Credit

Prerequisite: Pre-calculus or OnRamps Precalculus

Advanced Placement Calculus BC consists of a full academic year of work in calculus and related topics comparable to two semesters of calculus in colleges and universities. It is expected that students who take AP Calculus will seek college credit or placement from institutions of higher learning. The year's course will be devoted to the topics in differential and integral calculus, as well as vectors, slope fields, polynomial approximations, and series to adequately prepare students for the Advanced Placement Calculus BC examination. This course requires a graphing utility. **Students enrolling in Advanced Placement courses will be required to take the Advanced Placement exam for each course in order to receive credit.** *AP courses receive weighted GPA credit.*

Statistics & Risk Management Course #: 07222490

Recommended Grade Placement: 11-12 1 Credit

Approved for math credit from State Board of Education | Prerequisite: Accounting I and Algebra II

Students will use a variety of graphical and numerical techniques to analyze patterns and departures from patterns to identify and manage risk that could impact an organization. Students will use probability as a tool for anticipating and forecasting data within business models to make decisions. Students will determine the appropriateness of methods used to collect data to ensure conclusions are valid.

Financial Mathematics Course #: 07222460

Recommended Grade Placement: 10 1 Credit

Approved for math credit from State Board of Education | Prerequisite: Algebra I

In this course, students will apply mathematics to problems arising in everyday life, society, and the workplace. Students will use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a 3 solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution. Students will select appropriate tools such as real objects, manipulatives, paper and pencil, and technology and techniques such as mental math, estimation, and number sense to solve problems. Students will display, explain, or justify mathematical ideas and arguments using precise mathematical language in written or oral communication.

Mathematics for Medical Professionals Course #: 07226470

Recommended Grade Placement: 11-12 1 Credit

Prerequisites: Geometry and Algebra II

The Mathematics for Medical Professionals course is designed to embed 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. Course content consists primarily of high school level mathematics concepts and their applications to health science professions.

Math-Oriented Courses

In Crowley ISD, all high school students are required to take four years of math. The following courses utilize mathematical concepts and processes which help students practice important skills. The courses listed will satisfy the Crowley ISD requirement for math-oriented courses following completion of the Mathematics graduation requirements. **Students planning to attend a 4-year university should strongly consider taking a math course during their senior year to be fully prepared for the rigor of college math courses, such as OnRamps Pre-Calculus, Statistics, AP Statistics, OnRamps Statistics, AP Calculus AB or AP Calculus BC.**

Music Theory I or II AP
Computer Science I, II, III
Accounting I or II
Adv. Int. Design/Practicum
Adv. Arch. Design/Practicum
Practicum in Health Science
Culinary Arts I, Practicum or Adv. Culinary Arts
Cosmetology II
Agricultural Mechanics & Metal Technology
Agricultural Power Systems
Agricultural Structural Design & Fabrication
Agricultural Equipment Design & Fabrication
Civil Engineering & Architecture
Construction Technology II
Practicum in Construction Technology
Practicum in Graphic Design & Illustration
Pharmacology
Practicum in Information Technology
Computer Technician Practicum
Networking

Introduction to Engineering
Digital Electronics
Engineering Science
Engineering Design & Development
Career Preparation or Practicum Courses
AP Physics/OnRamps Physics
AP Chemistry/OnRamps Chemistry
AP Computer Science
Aerospace Engineering
Practicum in Law, Public Safety, Corrections & Security
Emergency Medical Technician
Geographical Information Systems
Raster Based Geographical Information Systems
Spatial Technology and Remote Sensing
Practicum in STEM
Cybersecurity Capstone
Automotive Technology II
Practicum in Transportation Systems
Aircraft Powerplant Technology
Practicum in Distribution & Logistics

Science

All science classes are required to dedicate at least 40% of instructional time to students conducting laboratory and field investigations utilizing safe, environmentally appropriate, and ethical practices.

Biology Course #: 03090100
Recommended Grade Placement: 9-11 1 Credit

In Biology, students will conduct laboratory and field investigations, use scientific practices during investigations, and make informed decisions using critical thinking and scientific problem solving. Biology topics include: structures and functions of cells and viruses; growth and development of organisms; cells, tissues, and organs; nucleic acids and genetics; biological evolution; taxonomy; metabolism and energy transfers in living organisms; living systems; homeostasis; and ecosystems and the environment.

Honors Biology Course #: 03090175
Recommended Grade Placement: 9-11 1 Credit

This course is designed to develop the science proficiency skills needed to be successful in completing college level work in high school (OnRamps, Dual Credit, Advance Placement). Honors Biology is a comprehensive study of: structures and functions of cells and viruses; growth and development of organisms; cells, tissues, and organs; nucleic acids and genetics; biological evolution; taxonomy; metabolism and energy transfers in living organisms; living systems; homeostasis; ecosystems; and plants and the environment. This course is designed for the highly motivated student and utilizes content and activities that stress higher level thinking skills, a rigorous, in-depth and sophisticated laboratory-based approach and accelerated concept pacing.
Honors courses receive weighted GPA credit.

Specialized Topics in Science Course #: 03220380
Recommended Grade Placement: 10-11 1 Credit
Recommended Prerequisite: One year of high school science

Specialized Topics in Biology is intended to diversify programs of science study and give students the opportunity to study targeted scientific topics in Biology in greater detail and with deeper understanding to reach mastery of science content.

Chemistry Course #: 03100200

Recommended Grade Placement: 10-12 1 Credit

Prerequisite: Biology and Algebra I

Recommended Prerequisite: IPC and completion of/concurrent enrollment in Geometry or Algebra II

In Chemistry, students conduct laboratory and field investigations, use scientific practices during investigations, and make informed decisions using critical thinking and scientific problem solving. Chemistry topics include characteristics of matter, use of the Periodic Table, development of atomic theory and chemical bonding, chemical stoichiometry, gas laws, solution chemistry, thermochemistry, and nuclear chemistry. Students will investigate how chemistry is an integral part of our daily lives.

Honors Chemistry Course #: 03100250

Recommended Grade Placement: 10-12 1 Credit

Required Prerequisite: Biology and Algebra I (Honors preferred)

Recommended Prerequisite: Completion of/concurrent enrollment in Geometry or Algebra II

This course is designed to develop the science proficiency skills needed to be successful in completing college level work in high school (OnRamps, Dual Credit, Advance Placement). Honors Chemistry topics include characteristics of matter, use of the Periodic Table, development of atomic theory and chemical bonding, chemical stoichiometry, gas laws, solution chemistry, thermochemistry, nuclear chemistry, and scientific processes. This course is designed for the highly motivated student and utilizes content and activities that stress higher level thinking skills, a rigorous, in-depth and sophisticated laboratory-based approach and accelerated concept pacing. *Honors courses receive weighted GPA credit.*

Physics Course #: 03110400

Recommended Grade Placement: 11-12 1 Credit

Prerequisite: Biology, IPC or Chemistry, Algebra I

Recommended Prerequisite: completion of/concurrent enrollment in Geometry or Algebra II

In Physics, students conduct laboratory and field investigations, use scientific practices during investigations, and make informed decisions using critical thinking and scientific problem solving. Students study a variety of topics that include: laws of motion; changes within physical systems and conservation of energy and momentum; forces; thermodynamics; characteristics and behavior of waves; and atomic, nuclear, and quantum physics. This course is designed for college-bound students preparing for non-science-related careers that have successfully completed Algebra 1 and have completed or enrolled in Geometry or Algebra II.

Aquatic Science Course #: 03220810

Recommended Grade Placement: 11-12 1 Credit

Prerequisite: Biology

Recommended Prerequisite: Chemistry (may be concurrently enrolled)

In Aquatic Science, students study the interactions of biotic and abiotic components in aquatic environments, including impacts on aquatic systems. Investigations and field work in this course may emphasize freshwater or marine aspects of aquatic science depending primarily upon the natural resources available for study near the school. Students who successfully complete Aquatic Science will acquire knowledge about a variety of aquatic systems, conduct investigations and observations of aquatic environments, work collaboratively with peers, and develop critical-thinking and problem- solving skills.

Astronomy Course #: 03220910

Recommended Grade Placement: 11-12 1 Credit

Recommended Prerequisite: Biology

In Astronomy, 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, reasons for the seasons, 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.

Earth Systems Science Course #: 03220920

Recommended Grade Placement: 11-12 1 Credit

Prerequisite: 3 Science courses (one may be taken concurrently) and 3 Mathematics courses (one may be taken concurrently)

Earth and Space Science is a rigorous capstone course designed to build on a student's prior scientific and academic knowledge and skills to develop understanding of Earth's system in space and time. Earth and space science has themed topics of study which include Earth in Space and Time (Earth history), Solid Earth (the complex, interacting, dynamic subsystems linking Earth's interior to its surface), Fluid Earth, (hydrosphere, atmosphere, and cryosphere). There are three strands that are used throughout each of the themes which are: Systems, Energy and Relevance.

Environmental Systems Course #: 03220800

Recommended Grade Placement: 11-12 1 Credit

Prerequisite: Biology and IPC or Physics

In Environmental Systems, students conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Environmental systems topics include biotic and abiotic factors in habitats, ecosystems and biomes, interrelationships among resources and an environmental system, sources and flow of energy through an environmental system, relationship between carrying capacity and changes in populations and ecosystems, and changes in environments.

Biology – Advanced Placement Course #: 03120500

Recommended Grade Placement: 11-12 1 Credit

Prerequisites: Biology, Chemistry (successful completion of both Honors courses recommended) |This course will satisfy the 4th Science requirement.

***Only offered at Global Prep Academy**

The AP Biology course is an introductory college-level biology course. Students cultivate their understanding of biology through inquiry-based investigations as they explore the following topics: evolution, cellular processes, energy and communication, genetics, information transfer, ecology, and interactions. **Students enrolling in Advanced Placement courses will be required to take the Advanced Placement exam for each course in order to receive credit.** *AP courses receive weighted GPA credit.*

Environmental Science – Advanced Placement Course #: 03220875

Recommended Grade Placement: 11-12 1 Credit

Prerequisite: Honors Biology, Honors Chemistry, and Algebra I | This course will satisfy 4th Science requirement

The AP Environmental Science course is designed to be the equivalent of a one-semester, introductory college course in environmental science, through which students engage with the scientific principles, concepts, and methodologies required to understand the interrelationships within the natural world. The course requires that students identify and analyze natural and human-made environmental problems, evaluate the relative risks associated with these problems, and examine alternative solutions for resolving or preventing them. Environmental science is interdisciplinary, embracing topics from geology, biology, environmental studies, environmental science, chemistry, and geography. **Students enrolling in Advanced Placement courses will be required to take the Advanced Placement exam for each course in order to receive credit.** *AP courses receive weighted GPA credit.*

University of Texas OnRamps Biology Course #: 03220390

Recommended Grade Placement: 12 *1 Credit*

Prerequisite: Biology and Chemistry (Honors preferred)

Molecular and cellular biology is the focus of this introductory biology course. The course revolves around three big ideas of biology starting with the study of the structure and function of biomolecules. The flow of energy through living systems via photosynthesis and cellular respiration is the second big idea of the class. The course finishes with investigation of how genetic information is expressed and transmitted both within and between cells. The student will have a university-level learning experience while still in high school and the opportunity to earn college credit. *Dual enrollment courses receive weighted GPA credit.*

University Of Texas OnRamps Chemistry Course #: 03220401

Recommended Grade Placement: 11-12 *1 Credit*

Prerequisite: Biology and Algebra I

Introduces students to the nature of matter and energy in the physical world. Throughout the course, students will learn to think like a scientist by seeing the underlying theoretical foundations for chemistry and making intuitive arguments for how the world works that are supported by quantitative measures. Built with an intention to bring in students from a variety of different backgrounds, students in the course will learn how to successfully study science by organizing their learning around mastery and ownership of materials. Students will experience high quality curriculum designed by the faculty of the University of Texas at Austin. The student will have a university-level learning experience while still in high school and the opportunity to earn college credit. *Dual enrollment courses receive weighted GPA credit.*

University of Texas OnRamps Physics Course #: 03220400

Recommended Grade Placement: 11-12 1 Credit

Prerequisite: Biology, Algebra I, and Geometry

Recommended Prerequisite: Algebra II (may be concurrently enrolled)

An Algebra-based (non-calculus) technical course in mechanics that fulfills a general physics requirement. Students will develop problem solving proficiency, and be able to analyze physical situations involving motion, force, energy, rotations, heat, oscillations, waves, and sound. Students will experience high quality curriculum designed by the faculty of the University of Texas at Austin. The student will have a university-level learning experience while still in high school and the opportunity to earn college credit. *Dual enrollment courses receive weighted GPA credit.*

University of Texas OnRamps Physics II Course #: 03220400

Recommended Grade Placement: 11-12 1 Credit

Prerequisite: Algebra II, Geometry, OnRamps PHY 302K, AP Physics 1, Honor Physics, or PHYS 1301 (recommended) Recommended Prerequisite: PHYS 1301, Precalculus

OR Physics II serves as an introduction to electricity, magnetism, optics, waves, and quantum and nuclear physics. Students will explore these topics as they obtain practical experience with electrical circuits and optical devices. Students will also investigate modern physical phenomena, including the quantum nature of light (photons) and properties of the atomic nucleus. Students will learn both how scientific inquiry reveals the fundamental properties of the universe and how these properties are applied in technologies that shape the modern world. *Dual enrollment courses receive weighted GPA credit.*

Advanced Animal Science Course #: 07221225

Recommended Grade Placement: 11-12 1 Credit

Approved by the State Board of Education for 4th Science credit | Prerequisite: Biology and Chemistry or IPC; Algebra and Geometry; and 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.

Advanced Plant & Soil Science Course #: 0722168

Recommended Grade Placement: 11-12 1 Credit

Approved by State Board of Education for 4th Science credit | Prerequisite: Biology, IPC, Chemistry or Physics and 1 credit from the Agriculture, Food, and Natural Resources Career Cluster

Advanced Plant and Soil Science provides a way of learning about the natural world. Students should know how plant and soil science has influenced a vast body of knowledge, that there are still applications to be discovered, and that plant and soil science is the basis for many other fields of science. To prepare for careers in plant and soil science, students must attain academic skills and knowledge, acquire technical knowledge and skills related to plant and soil science and the workplace.

Anatomy And Physiology Course #: 03120900

Recommended Grade Placement: 11-12 1 Credit

Approved by State Board of Education for 4th Science credit | Prerequisite: Biology and Chemistry
Recommended Prerequisite: 1 course from the Health Science Career Cluster

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. The goal of this course is to better prepare students for undergraduate work in life science majors such as pre-medical or pre-dental studies.

Forensic Science Course #: 07229300

Recommended Grade Placement: 11-12 1 Credit

Approved by the State Board of Education for 4th science credit | Prerequisite: Biology and Chemistry
Recommended Pre/Corequisites: Any Law, Public Safety, Corrections, and Security Career Cluster course

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.

Pathophysiology Course #: 07226400

Recommended Grade Placement: 11-12 1 Credit

Approved by the State Board of Education for 4th science credit | Prerequisite: Biology, Chemistry
Recommended Pre/Corequisite: Medical Microbiology or another course from the Health Science Career Cluster

The Pathophysiology 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 Pathophysiology will study disease processes and how humans are affected. Emphasis is placed on prevention and treatment of disease. Students will differentiate between normal and abnormal physiology.

Social Studies

World Geography Course #: 04090100
Recommended Grade Placement: 9 1 Credit

World Geography is the study of the earth, its regions, and the people who live in these regions. Students will study the topography, weather, and climate of each region as well as the languages, customs, and ways of living of the people who inhabit these regions. In addition, the interaction of people with the environment and with each other will be studied. Students will become familiar with the relative locations of the world's continents, oceans, and countries and will learn to use maps, charts, graphs, and other methods of research used by geographers.

Human Geography – Advanced Placement Course #: 04220175
Recommended Grade Placement: 9 1 Credit

The purpose of the AP Human Geography course is to introduce students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students employ spatial concepts and landscape analysis to examine human social organization and its environmental consequences. They also learn about the methods and tools geographers use in their science and practice. On successful completion of the course, students should have developed skills that enable them to: *Use and think about maps and spatial data, Understand and interpret the implications of associations among phenomena in places, Recognize and interpret at different scales the relationships among patterns and processes, Define regions and evaluate the regionalization process, and Characterize and analyze changing interconnections among places.* This is a writing intensive course. **Students enrolling in Advanced Placement courses will be required to take the Advanced Placement exam for each course in order to receive credit.** ***AP courses receive weighted GPA credit.***

World History Course #: 04100200
Recommended Grade Placement: 10 1 Credit

This is the story of man, his civilization and culture, his ideas and institutions from the primitive beginnings to present global challenges. It traces geopolitical, economic, and social experiences of mankind and applies them to the present. Students trace the development of Western civilization and its relationships to other great world cultures. A study of contemporary world affairs becomes an essential element of the course, as does the achievements of man in his total cultural setting.

World History – Advanced Placement Course #: 04100275
Recommended Grade Placement: 10 1 Credit
Recommended Prerequisite: AP Human Geography

AP World History is a one-year college-level course that examines the evolution of global processes and contacts, in interaction with different types of human societies from the earliest human societies to the present. The course highlights the impact of geography, culture, trade, religion and technology during selected historical periods. A major emphasis in this course is the extent to which contact between societies resulted in the diffusion of ideas and the impact of this interaction across geographic regions with a primary focus on non-Europeans societies. AP courses in the Social Sciences cover a greater breadth of factual information and are

heavily geared towards research methodology and analysis. This is a writing intensive course. **Students enrolling in Advanced Placement courses will be required to take the Advanced Placement exam for each course in order to receive credit.** ***AP courses receive weighted GPA credit.***

Ethnic Studies: Native American Studies Course #: 04220809
Recommended Grade Placement: 10-12 1 Credit

Native American Studies is designed to assist students in understanding issues and events from American Indian/Native perspectives and should be presented in a manner in which each Native Nation studied is given the same independence and sovereignty as a foreign nation. This course is a survey course of Nations in what is now known as the United States and Texas that develops an understanding of the roots of American Indian/Native cultures, especially as it pertains to social, economic, and political interactions within the broader context of North American history. It requires an analysis of important ideas, social and cultural values, beliefs, and traditions. Knowledge of how past events affect the present provides students of the 21st century with a broader context within which to address the many triumphs and challenges of American Indian/Native communities in the United States today.

Ethnic Studies: Mexican American Studies Course #: 04220804
Recommended Grade Placement: 10-12 1 Credit

Mexican American studies is an innovative course 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 – students will also engage with developments prior to the twentieth century.

Ethnic Studies: African American Studies Course #: 04220806
Recommended Grade Placement: 10-12 1 Credit

African American studies is a conceptually driven course that introduces students to the exploration of the rich and diverse history of African Americans. The goal of this course is to broaden students' knowledge and understanding of the history, citizenship, culture, economics, science, technology, geography, and political realities of African Americans. The historical content of this course is taught with relevance to contemporary and current issues to ensure a personal connection and deep understanding for students.

African American Studies – Advanced Placement Course #: 04220807 (Sem 1)
Recommended Grade Placement: 10 – 12 Course #: 04220808 (Sem 2)
1 Credit

AP African American Studies is a one year look at the history, politics, culture, and economics of North American people of African descent. From the slave economy to the civil rights movement, and from the blues to hip-hop, this course will examine the role that African Americans have had in shaping American society and culture. Topics will include historical hardships faced by African Americans and modern issues including educational opportunities. Scholars in African American studies focus on people and viewpoints that have been ignored in other fields and integrate minority experiences into all academic subjects. This is a writing intensive course. **Students enrolling in Advanced Placement courses will be required to take the Advanced Placement exam for each course in order to receive credit.** ***AP courses receive weighted GPA credit.***

U.S. History Since Reconstruction Course #: 04110300
Recommended Grade Placement: 11 1 Credit

This is a history of the Credited States from Reconstruction through the present: reconstruction, populism and progressivism, the twenties and the New Deal, the world wars, the cold war period, the Vietnam war, the Watergate era, etc. Consideration is given to various aspects of Credited States history including economic patterns, foreign involvement, cultural and political attitudes, and a chronological overview of the history of the Credited States. Research and geographic skills are developed.

U.S. History – Advanced Placement Course #: 04110350
Recommended Grade Placement: 11 1 Credit
Recommended Prerequisite: AP World History / AP Government / AP Economics
***Only offered at Global Prep Academy**

Designed for juniors demonstrating advanced aptitude in social studies, this course prepares students for intermediate and advanced college courses equivalent to those of full-year introductory college courses. Students may qualify for college credit based on AP test scores. AP U.S History covers American history from its earliest history to the present. This course is designed to give students the analytical skills and factual knowledge necessary to deal critically with problems and materials in American history from colonization to the present. Students assess historical data, interpret problems, weigh evidence, and arrive at conclusions presented in historical scholarship. Both oral and written skills are used extensively. **Students enrolling in Advanced Placement courses will be required to take the Advanced Placement exam for each course in order to receive credit.** ***AP courses receive weighted GPA credit.***

University of Texas OnRamps U.S. History Course #: 04110315
Recommended Grade Placement: 11 1 Credit

This course surveys American history from the colonial period through the civil war during the first semester and from the end of the civil war through modern times during the second semester. Students will experience a high-quality curriculum designed by the faculty of the University of Texas at Austin. The student will have a university-level learning experience while still in high school and the opportunity to test for college credit. ***Dual enrollment courses receive weighted GPA credit.***

U.S. Government Course #: 04120400
Recommended Grade Placement: 12 ½ Credit

Students in this course examine political theory/application and governmental structures/functions at national, state, and local levels. Content includes a study of the U.S. Constitution, background, political parties, political participation, Congress, the Presidency, comparative political systems, and the rights and responsibilities of American citizenship. *U.S. Government is typically paired with Economics for full credit.*

U.S. Government - Advanced Placement Course #: 04120450
Recommended Grade Placement: 12 ½ Credit
Recommended Prerequisites: AP Human Geography / AP Macroeconomics
***Only offered at Crowley Collegiate Academy**

This course is designed for sophomores demonstrating advanced aptitude in Social Studies. It assists students to acquire a thorough and systematic comprehension of American government and politics based on an understanding of the facts, concepts, ideologies, institution, and political practices/ processes that comprise American political reality. It exceeds the regular course in both scope and depth of content. It prepares students for intermediate and advanced college courses by requiring performances equivalent to those of an introductory college course. Students may qualify for college credit based on their AP Test scores. **Students enrolling in Advanced Placement courses will be required to take the Advanced Placement exam for each course in order to receive credit.** ***AP courses receive weighted GPA credit.***

University of Texas OnRamps Government Course #: 04120456
Recommended Grade Placement: 12 ½ Credit
Prerequisite (or concurrent enrollment): US History

This course introduces the American principles for self-government established by the founders with the goal of preparing students to take an active role in civic life. Students learn about their rights and responsibilities as individual citizens and their ability to participate in government, including the right to vote and run for office. The course also explores how American government was shaped during its founding and how it has evolved, as well as core texts and key events that influenced the development of American citizenship ***Dual enrollment courses receive weighted GPA credit.***

Economics with Emphasis on the Free Enterprise System Course #: 04120425
Recommended Grade Placement: 12 ½ Credit

Economics with Emphasis on the Free Enterprise System and Its Benefits emphasizes the American free enterprise system, government in the American economic system, American economic system and international economic relations, consumer economics, and social studies attitudes, values, and skills for citizenship. *Economics is typically paired with U.S. Government for full credit.*

Macroeconomics – Advanced Placement Course #: 04120475

Recommended Grade Placement: 12 ½ Credit

Recommended prerequisite: AP Human Geography/AP Government

***Only offered at Global Prep Academy**

The purpose of the AP Macroeconomics course is to give students an understanding of the free enterprise system with emphasis on the principles that apply to our capitalist economy as a whole. This course examines national income and price determination, economic performance measures, economic growth, money and banking, and international economics. The class develops an understanding of the role of government in setting and maintaining national economic goals. The textbook, content, and activities are college level, and students are encouraged to take the AP Macroeconomics exam for college credit. **Students enrolling in Advanced Placement courses will be required to take the Advanced Placement exam for each course in order to receive credit.** ***AP courses receive weighted GPA credit.***

University of Texas OnRamps Economics Course #: 04120426

Recommended Grade Placement: 11 1 Credit

Economics introduces students to the principles, models, and conditions that influence how consumers, businesses, governments, and workers make and evaluate economic decisions. The course places emphasis on microeconomics concepts and quantitative reasoning as students employ logic, mathematics, and technology to interpret basic statistics and apply economic analysis. It also features macroeconomics topics and personal financial literacy content in addition to core concepts including scarcity and opportunity costs, supply and demand, market structures, competition, and behavioral economics. ***Dual enrollment courses receive weighted GPA credit.***

Personal Financial Literacy and Economics Course #: 04220435

Recommended Grade Placement: 12 ½ Credit

This course provides a foundation in both microeconomics and macroeconomics. Students will survey the impact of demand, supply, various industry structures, and government policies on the market for goods, services, and wages for workers. Macroeconomic study involves economic systems with an emphasis on free enterprise market systems, goals of full employment, price stability, and growth. The course requires that students demonstrate critical thinking by exploring how to invest in themselves with education and skill development, earn income, and budget for spending, saving, investing, and protecting. Students will examine their individual responsibility for managing their personal finances and understand the impact on standard of living and long-term financial well-being. **Students can only earn credit for EITHER the *Personal Financial Literacy and Economics* course OR the *Personal Financial Literacy* course but not for both. Please check with your counselor for more details.**

Dual Credit Business 1307 (Personal Financial Literacy) Course #: 04220433

Recommended Grade Placement: 12 ½ Credit

This elective 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 responsibility. Students will be taught to apply critical-thinking and problem-solving skills to analyze decisions involving earning and spending, saving and investing, credit and borrowing, insuring and protecting, and college and post-secondary education and training. This course includes instruction in methods of paying for college and other postsecondary education and training along with completing

the application for federal student aid provided by the U.S. Department of Education. ***Students can only earn credit for EITHER the Personal Financial Literacy and Economics course OR the Personal Financial Literacy course but not for both. Please check with your counselor for more details.***
Dual credit courses receive weighted GPA credit.

Personal Financial Literacy Course #: 04220430
Recommended Grade Placement: 10 - 12 ½ Credit

This elective 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 responsibility. Students will be taught to apply critical-thinking and problem-solving skills to analyze decisions involving earning and spending, saving and investing, credit and borrowing, insuring and protecting, and college and postsecondary education and training. This course includes instruction in methods of paying for college and other postsecondary education and training along with completing the application for federal student aid provided by the U.S. Department of Education. **Students can only earn credit for EITHER the *Personal Financial Literacy and Economics* course OR the *Personal Financial Literacy* course but not for both. Please check with your counselor for more details.**

Psychology Course #: 04220600
Recommended Grade Placement: 10-12 ½ Credit

Psychology is an elective course which encompasses broad areas of study about human behavior, and it enables the students to better understand themselves and others. The goal of this course is to create active intellectual and emotional involvement by the student, not only in learning about the science of psychology, but in life as well.

Psychology - Advanced Placement Course #: 04220650
Recommended Grade Placement: 10-12 ½ Credit

This elective course is designed for students demonstrating strong aptitude in social studies skills and possessing an interest in Psychology. It exceeds the regular course in both scope and depth of content. It prepares students for intermediate and advanced college courses by requiring performances equivalent to those of an introductory college course. Students may qualify for college credit based on their AP Test scores. **Students should also be enrolled in Advanced Studies – Psychology for the spring semester as a continuation of the AP course. Students enrolling in Advanced Placement courses will be required to take the Advanced Placement exam for each course in order to receive credit.** *AP courses receive weighted GPA credit.*

Advanced Studies - Psychology Course #: 04220960
Recommended Grade Placement: 10-12 ½ Credit
Prerequisite: Psychology - Advanced Placement

This elective course is the **second** semester course for AP Psychology. It is meant to help complete the study of concepts begun in AP Psychology and help review and prepare students for the AP exam. **Students enrolling in Advanced Placement courses will be required to take the Advanced Placement exam for each course in order to receive credit.** ***This course receives weighted GPA credit.***

Sociology Course #: 04220675

Recommended Grade Placement: 11-12 ½ Credit

Prerequisite: Completion of or concurrent enrollment in U.S. History

This elective course deals with the study of people and their interaction with one another. The processes of socialization are explained and are compared with other cultures. Students analyze cause and effects of social problems as well as cultural change in selected cultures. It involves learning about institutions found in all societies, such as the family, community organizations as well as political and social activities.

European History - Advanced Placement Course #: 04120500

Recommended Grade Placement: 11-12 1 Credit

Recommended Prerequisite: AP World History or AP U.S. History

This course is designed for students demonstrating strong aptitude in social studies skills and possessing an interest in European history. This course prepares students for introductory and advanced level courses at a four-year university. Students may earn college credit based on AP scores. The course covers European history from the Renaissance to the present. Analytical and writing skills are stressed. Students assess historical data, weigh evidence, interpret problems and study relationships between European countries and countries affected by western European historical development. **Students enrolling in Advanced Placement courses will be required to take the Advanced Placement exam for each course in order to receive credit. Counts as social studies elective for graduation plans.** ***AP courses receive weighted GPA credit.***

Comparative Government - Advanced Placement Course #: 04220452

Recommended Grade Placement: 11-12 ½ Credit

This course introduces students to concepts used by political scientists to study the processes and outcomes of politics in a variety of country settings. Students will study major concepts and focus on the specific politics of six countries: China, Great Britain, Iran, Mexico, Nigeria, and Russia. This course will help students understand the more abstract concepts by looking at concrete examples. **Students enrolling in Advanced Placement courses will be required to take the Advanced Placement exam for each course in order to receive credit.** ***AP courses receive weighted GPA credit.***

Languages Other than English (LOTE)

American Sign Language I Course #: 05221100
Recommended Grade Placement: 10 1 Credit

This course introduces the vocabulary and grammar of American Sign Language and fingerspelling. It also emphasizes the physical, social, and psychological aspects of the deaf experience. Upon completion, students will be able to demonstrate ASL word order, grammatical structures, and facial grammar in both signed and written form. Students also will be able to understand and carry-on basic conversations.

American Sign Language II Course #: 05221200
Recommended Grade Placement: 11 1 Credit
Prerequisite: ASL I

This course will include additional vocabulary and more complex grammar of ASL. There will be an emphasis on fluency and culture.

American Sign Language III Course #: 05221300
Recommended Grade Placement: 12 1 Credit
Prerequisite: ASL II

This course continues signing and reading skill development using only sign language in the classroom with emphasis on grammar and fluency. Deaf literature and deaf culture will be studied and practiced.

French I Course #: 05222100
Recommended Grade Placement: 9 1 Credit

The instruction in beginning French begins with a strong emphasis on listening and speaking. However, reading and writing are quickly introduced. Upon completion of this course, students should be able to understand, and carry-on simple conversations based on greetings, introductions, family, home, school, daily routine, shopping, etc. They should learn the basic elements of grammar.

French II Course #: 05222200
Recommended Grade Placement: 10 1 Credit
Prerequisite: French I

A special emphasis on culture and grammatical structure is continued as the student develops listening and speaking skills in French. Students will expand basic vocabulary and focus on a more grammar-oriented approach to language study via simple written essays and short readings.

French II Honors Course #: 05222250
Recommended Grade Placement: 10 1 Credit
Prerequisite: French I

This course is intended for the serious student who wishes to master the French language. An extensive emphasis on grammatical structure and aural/oral proficiency distinguishes this course from the regular

section. Students will expand basic vocabulary and cultural knowledge of the francophone world via written essays, readings, and videos. Much of the class will be conducted in French. An average of 85 or higher in French I is highly recommended. *Honors courses receive weighted GPA credit.*

French III Honors Course #: 05222300
Recommended Grade Placement: 11 1 Credit
Prerequisite: French II

This class is intended to bring the student a step closer to success on the College Board's Advanced Placement exam. It will be conducted in French. Speaking and writing will be equally emphasized. Grammatical skills are developed through daily written and oral practice in all verb tenses. The student will read French literature and write many timed essays. The study of Francophile culture continues via literature and film. An average of 85 or higher in French II Honors is highly recommended. *Honors courses receive weighted GPA credit.*

French IV – Advanced Placement Course #: 05222400
Recommended Grade Placement: 12 1 Credit
Prerequisite: French III Pre- AP

The AP French program offers a course description and examination in the French language. The course is intended to be roughly equivalent both in content and difficulty to a college French language class at the advanced level. **Students enrolling in Advanced Academics Courses will be required to take the Advanced Placement exam for each course in order to receive credit.** *AP courses receive weighted GPA credit.*

German I Course # 05223100
Recommended Grade Placement: 9 1 Credit

This course is designed to introduce students to the fundamentals of speaking, reading, and writing German. Students will also be exposed to the customs and culture of Germany as well as other German speaking countries.

German II Course #: 05223200
Recommended Grade Placement: 10 1 Credit
Prerequisite: German I

This course continues the study of basic German concentrating on listening, speaking, reading and writing skills. In order for students to prepare for college level classes, a firm foundation of grammar is presented.

German II Honors Course #: 05223250
Recommended Grade Placement: 10 1 Credit
Prerequisite: German I

This course is intended for the serious student who wishes to master the German language as a continuation in the study of the German language and culture. Expanded vocabulary and more complex grammatical structures are taught. Advanced concepts in reading and writing are applied. Oral communication skills are further stressed and strengthened. *Honors courses receive weighted GPA credit.*

German III Honors Course #: 05223300

Recommended Grade Placement: 11 1 Credit

Prerequisite: German II

This course is a continuation of the development of reading, writing, listening, and speaking skills begun in German I and II. Functioning in everyday situations will be stressed. Students will begin to prepare for the Advanced Placement test. *Honors courses receive weighted GPA credit.*

German IV – Advanced Placement Course #: 05223400

Recommended Grade Placement: 12 1 Credit

Prerequisite: German III Honors

The AP German program offers a course and examination in the German language. The course is intended to be roughly equivalent both in content and difficulty to a college German language course at the advanced level. This course continues development of reading, writing, listening and speaking skills begun in German I and Advance grammar and literature will be stressed. Students will be given the opportunity to take the AP German Language test. Students enrolling in Advanced Placement courses will be required to take the Advanced Placement exam for each course in order to receive credit. *AP courses receive weighted GPA credit.*

Spanish I Course #: 05224100

Recommended Grade Placement: 9 1 Credit

The instruction in Spanish I initially has a strong emphasis on memorizing and using vocabulary for listening and speaking. However, reading and writing are quickly introduced. Upon completion of this course, students should be able to understand, and carry-on simple conversations based on greetings, introductions, family, home, school, daily routine, shopping, etc. They should know the basic elements of grammar.

Spanish I Honors Course #: 05224150

Recommended Grade Placement: 9 1 Credit

Spanish I Honors offers an enriched language experience that builds upon foundational skills with a greater emphasis on critical thinking, cultural exploration, and advanced language acquisition. By the end of the course, students will be equipped to participate in more nuanced conversations and possess a solid grasp of basic grammar principles, setting a strong foundation for future language studies. *Honors courses receive weighted GPA credit.*

Spanish II Course #: 05224200

Recommended Grade Placement: 9-10 1 Credit

Prerequisite: Spanish I

In Spanish II, students build on the foundational skills acquired in Spanish I, with an increased emphasis on conversational fluency and grammatical accuracy, with a special emphasis on listening and speaking. The course expands vocabulary related to various themes, including travel, food, culture, and past experiences. In order for the students to be prepared for college level classes, a firm foundation in grammar is presented.

Spanish II Honors Course #: 05224250

Recommended Grade Placement: 9-10 1 Credit

Prerequisite: Spanish I

Spanish II Honors is a course designed for the student who has future plans to take Spanish III Honors and eventually AP Spanish IV by enriching the course through depth and complexity. Emphasis in this class is on the spoken language. Listening, speaking, reading and writing skills are practiced. Emphasis is given to the acquisition of useful vocabulary and advanced grammar skills and concepts. Students read Spanish short stories and poems. *Honors courses receive weighted GPA credit.*

Spanish III Honors Course #: 05224300

Recommended Grade Placement: 10-11 1 Credit

Prerequisite: Spanish II

The Spanish III Honors course will help students prepare for Spanish IV AP by enriching the course through depth and complexity. Emphasis in this class is on the spoken language. Listening, speaking, reading and writing skills are practiced. Emphasis is given to the acquisition of useful vocabulary and advanced grammar skills and concepts. *Honors courses receive weighted GPA credit.*

Spanish IV – Spanish Language - Advanced Placement Course #: 05224400

Recommended Grade Placement: 11-12 1 Credit

Prerequisite: Spanish III Honors

The AP Spanish program offers a course description and examination in the Spanish language. The course is intended to be roughly equivalent both in content and difficulty to a college Spanish language course at the advanced level. Upon completion of the course a student may take the advanced placement exam for college level. Advanced Placement is open enrollment. **Students enrolling in Advanced Placement courses will be required to take the Advanced Placement exam for each course in order to receive credit.** ***AP courses receive weighted GPA credit.***

Spanish V – Spanish Literature - Advanced Placement Course #: 05224500

Recommended Grade Placement: 12 1 Credit

Prerequisite: Spanish IV

This course is comparable to a third-year college course in advanced Spanish composition and conversation. It emphasizes the use of Spanish for active communication and encompasses aural/oral skills, reading, comprehension, grammar, composition, literature, and culture. Course content will cover a wide range of intellectual interests including the arts, history, current events, modern literature, sports, etc. Materials will include films, newspapers, magazines, short stories, and novels. The course will be conducted entirely in Spanish. Students enrolling in Advanced Placement courses will be required to take the Advanced Placement exam for each course in order to receive credit. *AP courses receive weighted GPA credit.*

Fine Arts

Art I Course #: 06221100
Recommended Grade Placement: 9-12 1 Credit

Art I is the introductory course offered for high school graduation credit. It is required of every student who plans to take other art courses. The course emphasizes the following disciplines:

1. An understanding of art principles and elements
2. Exploring various art techniques and media methods
3. Acquainting students with artists and periods of the past and present
4. Developing art appreciation skills

Experiences are provided in life drawing and still-life drawing, painting, color, design, sculpture, and printmaking. A willingness to draw on a daily basis is expected. Please see the district approved fee list for course fees.

Art II Course #: 06221200
Recommended Grade Placement: 9-12 1 Credit
Prerequisite: Art I

This course builds on the foundations of Art I, with an emphasis on design and construction, art history and cultural connection, as well as the further development of the students' artistic skills and personal creativity. This course will require students to focus on observational drawing to refine their drawing skills, and participate in critical analysis, as well as provide them with the opportunity to explore additional media, alternative methods and materials, along with painting, printmaking, and sculpture.

Ceramics I Course #: 06221210
Recommended Grade Placement: 10-12 1 Credit
Prerequisite: Art II as well as instructor recommendation and approval

This course includes an introduction to the ceramics process. Students will learn about the properties of clay, its stages and how to attach and form it. Students will be introduced to and become proficient in hand-building techniques including pinch, coil, and slab. They will develop an understanding of various glazing techniques and drying and firing processes. Students will maintain a sketchbook for process development as they utilize several types of clay, along with materials, tools and supplies that are specific to the media to create functional and decorative ceramic pieces, including tiles, sculptures, and functional ware while incorporating the elements and principles of design.

Ceramics II Course #: 06221310
Recommended Grade Placement: 11-12 1 Credit
Prerequisite: Ceramics I as well as instructor recommendation and approval

Students build upon their skills learned in Introductory Ceramics, focusing on more complex works of art, including hand-building, glazing, and firing practices. This course reviews basic principles and techniques of working with clay along with learning new skills and techniques including throwing forms on the potter's wheel, centering clay, and surface decoration techniques. Students will further develop student understanding, skills and creativity, expressing themselves through their creations, exploring personal themes and developing individual

artistic voices. This course requires students to maintain a sketchbook for process development while creating both functional and non-functional pieces, as well as participating in assessments, critiques and reflections on the work created.

Art III Course #: 06221300

Recommended Grade Placement: 11-12 1 Credit

(10th grade only with an 80% or higher in Art II, as well as instructor recommendation and approval)

Prerequisite: Art II as well as instructor approval

This course will enable students to achieve a higher degree of artistic specialization within specific art media and processes. Student-centered learning activities will emphasize creative visual art media processes that will encourage creative problem-solving techniques and contribute to the individual student's real-world understanding and development of artistic style as it pertains to their environment and self-expression. Students will have a unique opportunity to analyze career opportunities within the field of visual arts. Portfolio development, correct oral and written communication, as they relate to the visual arts, will be integral to all aspects of this course. Vocational opportunities and requirements will be analyzed.

Art IV Course #: 06221400

Recommended Grade Placement: 11-12 1 Credit

Prerequisite: Art III with an 80% or higher in Art III, as well as instructor recommendation and approval

Students in Art IV will build on all their previous learning experiences in art to expand their technical and conceptual skills. A variety of art approaches will be explored to complete a comprehensive section (comprised of 12 quality images), part one of the AP portfolio. Students will be required to keep an extensive notebook and sketchbook with weekly assignments. Students are required to complete two quality artworks over the summer before taking this class in the fall. *This course receives weighted credit for GPA calculation.*

Art and Design (formally Studio Art) – Advanced Placement Course #: 06221500

Recommended Grade Placement: 11-12 1 Credit

Prerequisite: Art II or art teacher's recommendation, portfolio review and interview

In this course, students will create and develop an original thematic body of artwork based on their interest in a particular visual and conceptual creative idea. Students will complete the Concentration section (comprised of 15 quality images), part two of the AP portfolio. In 2-D Design, you are asked to demonstrate a conscious and deliberate application of design utilizing a variety of forms. These could include, but are not limited to, graphic design, illustration, typography, digital imaging, photography, collage, fabric design, weaving, illustration, painting, drawing, printmaking, etc. Design works place emphasis on the elements of art and the principles of design. Additionally, students will learn how to organize their art portfolio, create effective presentations, develop an art resume, and participate in numerous art activities. *AP courses receive weighted credit for GPA calculation.*

Drawing – Advanced Placement Course #: Pending

Recommended Grade Placement: 11-12 1 Credit

Prerequisite: Art II or art teacher's recommendation, portfolio review and interview

In AP Drawing, you'll use the skills you learn in the course, and your own ideas, to create unique works of art. Throughout the course, you'll develop an inquiry that guides artmaking through practice, experimentation, and revision of materials, processes, and ideas while demonstrating drawing skills through painting, drawing,

sequential art, printmaking, illustration, animation, fibers, and others. **Students enrolling in Advanced Placement courses will be required to take the Advanced Placement exam for each course in order to receive credit.** *AP courses receive weighted credit for GPA calculation.*

2-D Art and Design – Advanced Placement Course #: 03502210
Recommended Grade Placement: 11-12 1 Credit
Prerequisite: Art II or art teacher's recommendation, portfolio review and interview

In AP 2-D Art and Design, you'll use the skills you learn in the course, and your own ideas, to create unique works of art. Throughout the course, you'll develop an inquiry that guides artmaking through practice, experimentation, and revision of materials, processes, and ideas while demonstrating 2-D art and design skills through graphic design, sequential art, photography, collage, printmaking, illustration, industrial design, animation, game design, painting, fibers, and others. **Students enrolling in Advanced Placement courses will be required to take the Advanced Placement exam for each course in order to receive credit.** *AP courses receive weighted credit for GPA calculation.*

3-D Art and Design – Advanced Placement Course #: 03503210
Recommended Grade Placement: 11-12 1 Credit
Prerequisite: Art II or art teacher's recommendation, portfolio review and interview

In AP 3-D Art and Design, you'll use the skills you learn in the course, and your own ideas, to create unique works of art. Throughout the course, you'll develop an inquiry that guides artmaking through practice, experimentation, and revision of materials, processes, and ideas while demonstrating 3-D art and design skills through sculpture, architecture, jewelry, fashion and apparel design, bookmaking, game design, interior design, fibers, and others. **Students enrolling in Advanced Placement courses will be required to take the Advanced Placement exam for each course in order to receive credit.** *AP courses receive weighted credit for GPA calculation.*

Band I Course #: 06222100; 06222105
Recommended Grade Placement: 9 1 Credit
Prerequisite: 8th grade band experience
Emphasis is mastery of the following disciplines: correct care and handling of the instrument, breath control, correct development of embouchure, tone articulation and fingering, marching fundamentals with physical coordination and precision, and performance. Students learn these disciplines along with music history, theory, sight-reading, and concert techniques through marching and drilling, discriminative listening, and performance. Students perform at all football games, pep rallies, etc. as well as competitions designed for high-level music programs. The first semester of the first two levels may be used as a substitution for PE credit.

Band II Course #: 06222200; 06222205
Recommended Grade Placement: 10 1 Credit
Prerequisite: Band I

Emphasis is mastery of the following disciplines: correct care and handling of the instrument, breath control, correct development of embouchure, tone articulation and fingering, marching fundamentals with physical coordination and precision, and performance. Students learn these disciplines along with music history, theory, sight-reading, and concert techniques through marching and drilling, discriminative listening, and performance. Students perform at all football games, pep rallies, etc. as well as competitions designed for high-level music programs. The first semester of the first two levels may be used as a substitution for PE credit.

Band III Course #: 06222300

Recommended Grade Placement: 11 1 Credit

Prerequisite: Band II

Emphasis is mastery of the following disciplines: correct care and handling of the instrument, breath control, correct development of embouchure, tone articulation and fingering, marching fundamentals with physical coordination and precision, and performance. Students learn these disciplines along with music history, theory, sight-reading, and concert techniques through marching and drilling, discriminative listening, and performance. Students perform at all football games, pep rallies, etc. as well as competitions designed for high-level music programs.

Band IV Course #: 06222400

Recommended Grade Placement: 12 1 Credit

Prerequisite: Band III

Emphasis is mastery of the following disciplines: correct care and handling of the instrument, breath control, correct development of embouchure, tone articulation and fingering, marching fundamentals with physical coordination and precision, and performance. Students learn these disciplines along with music history, theory, sight-reading, and concert techniques through marching and drilling, discriminative listening, and performance. Students perform at all football games, pep rallies, etc. as well as competitions designed for high-level music programs. *This course receives weighted credit for GPA calculation.*

Jazz Studies I Course #: 06222150

Recommended Grade Placement: 9-12 1 Credit

Prerequisite: Class will be set by audition only

Jazz Studies is an introductory course to the style, history, and theory behind an original American genre of music. The course will include textbook study with musical instrument and vocal performance to achieve curricular goals and concert and community performances. Students will be provided with compositional and expressive experiences in the scope of the lessons. This is a year-long course.

Jazz Studies II Course #: 06222250

Recommended Grade Placement: 10-12 1 Credit

Prerequisite: Class will be set by audition only

Jazz Studies is an introductory course to the style, history, and theory behind an original American genre of music. The course will include textbook study with musical instrument and vocal performance to achieve curricular goals and concert and community performances. Students will be provided with compositional and expressive experiences in the scope of the lessons. This is a year-long course.

Jazz Studies III Course #: 06222350

Recommended Grade Placement: 11-12 1 Credit

Prerequisite: Class will be set by audition only

Jazz Studies is an introductory course to the style, history, and theory behind an original American genre of music. The course will include textbook study with musical instrument and vocal performance to achieve curricular goals and concert and community performances. Students will be provided with compositional and expressive experiences in the scope of the lessons. This is a year-long course.

Jazz Studies IV Course #: 06222450

Recommended Grade Placement: 12 1 Credit

Prerequisite: Class will be set by audition only

Jazz Studies is an introductory course to the style, history, and theory behind an original American genre of music. The course will include textbook study with musical instrument and vocal performance to achieve curricular goals and concert and community performances. Students will be provided with compositional and expressive experiences in the scope of the lessons. This is a year-long course.

Color Guard/Winter Guard I Course #: #: 06222500; 06222505

Recommended Grade Placement: 9-12 1 Credit

Prerequisite: Tryouts, physical and medical history on file

Color Guard is part of the Band program. The Color Guard is a competitive group who learns dance, movement, flag, and other equipment. This group performs with the band at all football games and is a part of the competitive marching season. During the spring semester the winter guard moves indoors to compete on the local, state, and national levels. There are required summer rehearsals for this group. The first semester of the first two levels may be used as a substitution for PE credit.

Color Guard/Winter Guard II Course #: 06222600; 06222605

Recommended Grade Placement: 10-12 1 Credit

Prerequisite: Tryouts, physical and medical history on file

Color Guard is part of the Band program. The Color Guard is a competitive group who learns dance, movement, flag, and other equipment. This group performs with the band at all football games and is a part of the competitive marching season. During the spring semester the winter guard moves indoors to compete on the local, state, and national levels. There are required summer rehearsals for this group. The first semester of the first two levels may be used as a substitution for PE credit.

Color Guard/Winter Guard III Course #: 06222700

Recommended Grade Placement: 11-12 1 Credit

Prerequisite: Tryouts, physical and medical history on file

Color Guard is part of the Band program. The Color Guard is a competitive group who learns dance, movement, flag, and other equipment. This group performs with the band at all football games and is a part of the competitive marching season. During the spring semester the winter guard moves indoors to compete on the local, state, and national levels. There are required summer rehearsals for this group.

Color Guard/Winter Guard IV Course #: 06222800

Recommended Grade Placement: 12 1 Credit

Prerequisite: Tryouts, physical and medical history on file

Color Guard is part of the Band program. The Color Guard is a competitive group who learns dance, movement, flag, and other equipment. This group performs with the band at all football games and is a part of the competitive marching season. During the spring semester the winter guard moves indoors to compete on the local, state, and national levels. There are required summer rehearsals for this group. *This course receives weighted credit for GPA calculation.*

Choir I Course #: 06223100

Recommended Grade Placement: 9-12 1 Credit

This course is the study of vocal and choral techniques including a study of sight singing and theory. Students compete in various levels of UIL competition as well as perform at school and other extra-curricular functions throughout the year. The elective course selection sheet will include the various choirs available. The Director will use auditions to determine final placement of choir members.

Choir II Course #: 06223200

Recommended Grade Placement: 10-12 1 Credit

Prerequisite: Choir I

This course is the study of vocal and choral techniques including a study of sight singing and theory. Students compete in various levels of UIL competition as well as perform at school and other extra-curricular functions throughout the year. The elective course selection sheet will include the various choirs available. The Director will use auditions to determine final placement of choir members.

Choir III Course #: 06223300

Recommended Grade Placement: 11-12 1 Credit

Prerequisite: Choir II

This course is the study of vocal and choral techniques including a study of sight singing and theory. Students compete in various levels of UIL competition as well as perform at school and other extra-curricular functions throughout the year. The elective course selection sheet will include the various choirs available. The Director will use auditions to determine final placement of choir members.

Choir IV Course #: 06223400

Recommended Grade Placement: 12 1 Credit

Prerequisite: Choir III

This course is the study of vocal and choral techniques including a study of sight singing and theory. Students compete in various levels of UIL competition as well as perform at school and other extra-curricular functions throughout the year. The elective course selection sheet will include the various choirs available. The Director will use auditions to determine final placement of choir members. *This course receives weighted credit for GPA calculation.*

Music Theory I Course #: 06222900

Recommended Grade Placement: 11-12 1 Credit

Prerequisite: A minimum of two (2) years of school band or choir

This course is designed for students planning to enter the music field in college. Also to prepare them to take the Music Theory advanced placement exam for college credit. It will consist of the study of music notation, sight singing, ear training, musical terms, musical form, and analysis.

Music Theory - Advanced Placement Course #: 06222950

Recommended Grade Placement: 11-12 1 Credit

Prerequisite: A minimum of two (2) years of school band or choir

This course is designed for students planning to enter the music field in college. Also to prepare them to take the Music Theory advanced placement exam for college credit. It will consist of the study of music notation, sight singing, ear training, musical terms, musical form, and analysis. Upon completion of Music Theory II, a student may take the advanced placement exam for college credit. Students enrolling in Advanced Placement courses will be required to take the Advanced Placement exam for each course in order to receive credit. *AP courses receive weighted GPA credit.*

Dance I Course #: 0622410

Recommended Grade Placement: 9-12 1 Credit

Dance class fosters the exploration and appreciation of diverse dance traditions and history while developing skills of observation, analysis, expression, and reflection. The class will focus on various types of dance such as ballet, jazz, hip hop, clogging, and modern. The purpose is to increase and enhance agility, endurance, flexibility, coordination, and balance. Dance students will be encouraged to perform before an audience at the annual spring show at the end of the year. This class may serve as a preparatory class for drill/dance team tryouts. Classes must be taken in order beginning with Dance I. Prior dance experience is not required. Students are required to purchase all black dance attire for class.

Dance II Course #: 06224200

Recommended Grade Placement: 9-12 (9th with instructor approval) 1 Credit

Dance class fosters the exploration and appreciation of diverse dance traditions and history while developing skills of observation, analysis, expression, and reflection. The class will focus on various types of dance such as ballet, jazz, hip hop, clogging, and modern. The purpose is to increase and enhance agility, endurance, flexibility, coordination, and balance. Dance students will be encouraged to perform before an audience at the annual spring show at the end of the year. This class may serve as a preparatory class for drill/dance team tryouts. Classes must be taken in order beginning with Dance I. Students are required to purchase all black dance attire for class.

Dance III Course #: 06224300

Recommended Grade Placement: 10-12 (10th with instructor approval) 1 Credit

Dance class fosters the exploration and appreciation of diverse dance traditions and history while developing skills of observation, analysis, expression, and reflection. The class will focus on various types of dance such as ballet, jazz, hip hop, clogging, and modern. The purpose is to increase and enhance agility, endurance, flexibility, coordination, and balance. Dance students will be encouraged to perform before an audience at the annual spring show at the end of the year. This class may serve as a preparatory class for drill/dance team tryouts. Classes must be taken in order beginning with Dance I. Students are required to purchase all black dance attire for class.

Dance IV Course #: 06224400

Recommended Grade Placement: 11-12 (11th with instructor approval) 1 Credit

Dance class fosters the exploration and appreciation of diverse dance traditions and history while developing skills of observation, analysis, expression, and reflection. The class will focus on various types of dance such as ballet, jazz, hip hop, clogging, and modern. The purpose is to increase and enhance agility, endurance, flexibility, coordination, and balance. Dance students will be encouraged to perform before an audience at the annual spring show at the end of the year. This class may serve as a preparatory class for drill/dance team tryouts. Classes must be taken in order beginning with Dance I. Students are required to purchase all black dance attire for class. *This course receives weighted GPA credit.*

Drill Team I Course #: 06226100; 06226105

Recommended Grade Placement: 9-12 1 Credit

Prerequisite: Tryout and selection process, physical and medical history on file

This course is designed for members of the high school's drill team after successful completion of the audition process held during the previous spring. Emphasis is placed on teamwork and dancing throughout the year in performances at football halftimes, basketball halftimes, pep rallies, and other community functions. Students will learn many different styles of dance including modern, ballet, tap, jazz, novelty, kick, hip-hop, funk, and dances using various props. In the spring, drill team members will compete with other schools in dance and drill team contests, then produce and perform in a spring show and continue dancing techniques in class. Students are required to purchase items after tryouts for team use starting at the line camp. Members will be provided with an order form. Students enrolled in the drill team class will receive a PE substitution credit for the fall semester of the first two years enrolled and a fine arts credit each semester/year thereafter.

Drill Team II Course #: 06226200; 06226205

Recommended Grade Placement: 10-12 1 Credit

Prerequisite: Tryout and selection process, physical and medical history on file

This course is designed for members of the high school's drill team after successful completion of the audition process held during the previous spring. Students will learn many different styles of dance in the spring, drill team members will compete with other schools in dance and drill team contests, then produce and perform in a spring show and continue dancing techniques in class. Students are required to purchase items after tryouts for team use starting at the line camp. Members will be provided with an order form. Students enrolled in the drill team class will receive a PE substitution credit for the fall semester of the first two years enrolled and a fine arts credit each semester/year thereafter.

Drill Team III Course #: 06226300

Recommended Grade Placement: 11-12 1 Credit

Prerequisite: Tryout and selection process, physical and medical history on file

This course is designed for members of the high school's drill team after successful completion of the audition process held during the previous spring. Emphasis is placed on teamwork and dancing throughout the year in performances at football halftimes, basketball halftimes, pep rallies, and other community functions. Students will learn many different styles of dance including modern, ballet, tap, jazz, novelty, kick, hip-hop, funk, and dances using various props. In the spring, drill team members will compete with other schools in dance and drill team contests, then produce and perform in a spring show and continue dancing techniques in class. Students are required to purchase items after tryouts for team use starting at the line camp. Members will be provided with an order form.

Drill Team IV Course #: 06226400

Recommended Grade Placement: 12 1 Credit

Prerequisite: Tryout and selection process, physical and medical history on file

This course is designed for members of the high school's drill team after successful completion of the audition process held during the previous spring. Emphasis is placed on teamwork and dancing throughout the year in performances at football halftimes, basketball halftimes, pep rallies, and other community functions. Students will learn many different styles of dance including modern, ballet, tap, jazz, novelty, kick, hip-hop, funk, and dances using various props. In the spring, drill team members will compete with other schools in dance and drill team contests, then produce and perform in a spring show and continue dancing techniques in class. Students are required to purchase items after tryouts for team use starting at the line camp. Members will be provided with an order form.

Theatre Arts I Course #: 06225100

Recommended Grade Placement: 9-12 1 Credit

Theatre Arts focuses on the individualized study of acting through performance of scene work and improvisation. Students will study theatre history, literature, performance, and period styles. Advanced classes will include a study of oral interpretation of literature and classical literature from various genres.

Theatre Arts II Course #: 06225200

Recommended Grade Placement: 9-12 (9th with instructor approval) 1 Credit

Prerequisite: Theatre Arts I

Theatre Arts focuses on the individualized study of acting through performance of scene work and improvisation. Students will study theatre history, literature, performance, and period styles. Advanced classes will include a study of oral interpretation of literature and classical literature from various genres.

Theatre Arts III Course #: 06225300

Recommended Grade Placement: 10-12 (10th with instructor approval) 1 Credit

Prerequisite: Theatre Arts II

Theatre Arts focuses on the individualized study of acting through performance of scene work and improvisation. Students will study theatre history, literature, performance, and period styles. Advanced classes will include a study of oral interpretation of literature and classical literature from various genres.

Theatre Arts IV Course #: 06225400
Recommended Grade Placement: 11-12 (11th with instructor approval) 1 Credit
Prerequisite: Theatre Arts III

Theatre Arts focuses on the individualized study of acting through performance of scene work and improvisation. Students will study theatre history, literature, performance, and period styles. Advanced classes will include a study of oral interpretation of literature and classical literature from various genres. *This course receives weighted credit for GPA calculation.*

Technical Theatre I Course #: 06225510
Recommended Grade Placement: 9-12 (9th with instructor approval) 1 Credit

Students explore all areas of technical theatre, i.e. the areas of construction of set, props, costumes, and production of sound and lighting. Students will learn stage and shop safety along with tool usage by practical application through the construction and running of school productions.

Technical Theatre II Course #: 06225520
Recommended Grade Placement: 10-12 (10th with instructor approval) 1 Credit
Prerequisite: Technical Theatre I

Students explore all areas of technical theatre, i.e. the areas of construction of set, props, costumes, and production of sound and lighting. Students will learn stage and shop safety along with tool usage by practical application through the construction and running of school productions.

Technical Theatre III Course #: 06225530
Recommended Grade Placement: 11-12 (11th with instructor approval) 1 Credit
Prerequisite: Technical Theatre II

Students explore all areas of technical theatre, i.e. the areas of construction of set, props, costumes, and production of sound and lighting. Students will learn stage and shop safety along with tool usage by practical application through the construction and running of school productions.

Technical Theatre IV Course #: 06225540
Recommended Grade Placement: 12 1 Credit
Prerequisite: Technical Theatre III

Students explore all areas of technical theatre, i.e. the areas of construction of set, props, costumes, and production of sound and lighting. Students will learn stage and shop safety along with tool usage by practical application through the construction and running of school productions.

Theatre Production I Course #: 06225610
Recommended Grade Placement: 9-12 1 Credit
Prerequisite: By audition by the director only

Theatre Production focuses on the study of acting through the performance of plays for the public. Students will produce plays for the public. Students will produce plays for performance during and after school. The Advanced Theater Production class requires rehearsals after school. Student enrollment is by audition only.

Theatre Production II Course #: 06225620

Recommended Grade Placement: 10-12 1 Credit

Prerequisite: Theatre Production I and by audition by the director only

Theatre Production focuses on the study of acting through the performance of plays for the public. Students will produce plays for the public. Students will produce plays for performance during and after school. The Advanced Theater Production class requires rehearsals after school. Student enrollment is by audition only.

Theatre Production III Course #: 06225630

Recommended Grade Placement: 9-12 1 Credit

Prerequisite: Theatre Production II and by audition by the director only

Theatre Production focuses on the study of acting through the performance of plays for the public. Students will produce plays for the public. Students will produce plays for performance during and after school. The Advanced Theater Production class requires rehearsals after school. Student enrollment is by audition only.

Theatre Production IV Course #: 06225640

Recommended Grade Placement: 12 1 Credit

Prerequisite: Theatre Production III and by audition by the director only

Theatre Production focuses on the study of acting through the performance of plays for the public. Students will produce plays for the public. Students will produce plays for performance during and after school. The Advanced Theater Production class requires rehearsals after school. Student enrollment is by audition only.
This course receives weighted credit for GPA calculation.

Cheerleading I Course #: 08224110; 08224115

Recommended Grade Placement: 9-12 ½ PE Credit per Semester

Prerequisite: Tryout and selection process, physical and medical history on file

All varsity and junior varsity cheerleaders and the mascot shall register for a cheerleading class. The class will be designed to meet the needs of the squad to handle the duties of the squad for the entire school year. Some practices will require before and/or after school hours. Practice time, pep rally planning, conditioning, aerobic training, team building, and leadership training are the basic skills that will be taught. Students enrolled in the cheerleading class will receive a PE substitution credit for the fall semester and a local credit for the spring semester, the first two years enrolled and local credit each year thereafter.

Cheerleading II Course #: 08224120; 08224125

Recommended Grade Placement: 10-12 ½ Local Credit per Semester

Prerequisite: Tryout and selection process, physical and medical history on file

All varsity and junior varsity cheerleaders and the mascot shall register for a cheerleading class. The class will be designed to meet the needs of the squad to handle the duties of the squad for the entire school year. Some practices will require before and/or after school hours. Practice time, pep rally planning, conditioning, aerobic training, team building, and leadership training are the basic skills that will be taught. Students enrolled in the cheerleading class will receive a PE substitution credit for the fall semester and a local credit for the spring semester, the first two years enrolled and local credit each year thereafter.

Cheerleading III Course #: 08224130; 08224135

Recommended Grade Placement: 11-12 ½ Local Credit per Semester

Prerequisite: Tryout and selection process, physical and medical history on file

All varsity and junior varsity cheerleaders and the mascot shall register for a cheerleading class. The class will be designed to meet the needs of the squad to handle the duties of the squad for the entire school year. Some practices will require before and/or after school hours. Practice time, pep rally planning, conditioning, aerobic training, team building, and leadership training are the basic skills that will be taught. Students enrolled in the cheerleading class will receive a PE substitution credit for the fall semester and a local credit for the spring semester, the first two years enrolled and local credit each year thereafter.

Cheerleading IV Course #: 08224140

Recommended Grade Placement: 12 ½ Local Credit per Semester

Prerequisite: Tryout and selection process, physical and medical history on file

All varsity and junior varsity cheerleaders and the mascot shall register for a cheerleading class. The class will be designed to meet the needs of the squad to handle the duties of the squad for the entire school year. Some practices will require before and/or after school hours. Practice time, pep rally planning, conditioning, aerobic training, team building, and leadership training are the basic skills that will be taught. Students enrolled in the cheerleading class will receive a PE substitution credit for the fall semester and a local credit for the spring semester, the first two years enrolled and local credit each year thereafter.

Athletics / Physical Education

Athletics I-IV
Recommended Grade Placement: 9-12
Prerequisite: Tryout and selection process, physical and medical history on file

Course #: see table below
1 Credit

Competitive athletic programs are available for boys and girls throughout the school year. As a rule, students who are in athletics are required to remain in some phase of the program throughout the year. Maximum state credits that may be earned is four. For supply fees, see district-approved fee list.

Boys Athletics				
	Year 1	**Year 2**	**Year 3**	**Year 4**
	Course #			
Baseball I, II, III, IV	08223110 08223115	08223120 08223125	08223130	08223140
Basketball I, II, III, IV	08223210 08223215	08223220 08223225	08223230	08223240
Football I, II, III, IV	08223310 08223315	08223320 08223325	08223330	08223340
Golf I, II, III, IV	08223410 08223415	08223420 08223425	08223430	08223440
Soccer I, II, III, IV	08223510 08223515	08223520 08223525	08223530	08223540
Swim I, II, III, IV	08223610 08223615	08223620 08223625	08223630	08223640
Tennis I, II, III, IV	08223710 08223715	08223720 08223725	08223730	08223740
Track/Cross Country I, II, III, IV	08223810 08223815	08223820 08223825	08223830	08223840
Wrestling I, II, III, IV	08223950 08223955	08223960 08223965	08223970	08223980

Girls Athletics				
	Year 1	**Year 2**	**Year 3**	**Year 4**
	Course #			
Basketball **I, II, III, IV**	08224010 08224015	08224020 08224025	08224030	08224040
Fastpitch Softball **I, II, III, IV**	08224410 08224415	08224420 08224425	08224430	08224440
Golf **I, II, III, IV**	08224210 08224215	08224220 08224225	08224230	08224240
Soccer **I, II, III, IV**	08224310 08224315	08224320 08224325	08224330	08224340
Swim **I, II, III, IV**	08224510 08224515	08224520 08224525	08224530	08224540
Tennis **I, II, III, IV**	08224610 08224615	08224620 08224625	08224630	08224640
Track/Cross Country **I, II, III, IV**	08224710 08224715	08224720 08224725	08224730	08224740
Volleyball **I, II, III, IV**	08224910 08224915	08224920 08224925	08224930	08224940
Wrestling I, II, III, IV	08224950 08224955	08224960 08224965	08224970	08224980

Basic Athletic Training I Course #: 08223901

Recommended Grade Placement: 9-12 1 Credit

Prerequisite: Application and selection process

This is a hands-on course that will cover current practice theories, and techniques in the care and prevention of injuries, and medical problems related to athletics. Topics include recognition of injuries, conditioning, nutrition, health and wellness, rehabilitation, first aid and CPR. Must be willing to work long hours after school and on some weekends; must be in good physical condition; must complete the application. Each student will enroll in the class and be selected as a student athletic trainer based on their performance and behavior.

Basic Athletic Training II Course #: 08223902

Recommended Grade Placement: 10-12 1 Credit

Prerequisite: Application and selection process

This is a hands-on course that will cover current practice theories, and techniques in the care and prevention of injuries, and medical problems related to athletics. Topics include recognition of injuries, conditioning, nutrition, health and wellness, rehabilitation, first aid and CPR. Must be willing to work long hours after school and on some weekends; must be in good physical condition; must complete the application. Each student will enroll in the class and be selected as a student athletic trainer based on their performance and behavior.

Basic Athletic Training III Course #: 08223903

Recommended Grade Placement: 11-12 1 Credit

Prerequisite: Application and selection process

This is a hands-on course that will cover current practice theories, and techniques in the care and prevention of injuries, and medical problems related to athletics. Topics include recognition of injuries, conditioning, nutrition, health and wellness, rehabilitation, first aid and CPR. Must be willing to work long hours after school and on some weekends; must be in good physical condition; must complete the application. Each student will enroll in the class and be selected as a student athletic trainer based on their performance and behavior.

Basic Athletic Training IV Course #: 08223904

Recommended Grade Placement: 12 1 Credit

Prerequisite: Application and selection process

This is a hands-on course that will cover current practice theories, and techniques in the care and prevention of injuries, and medical problems related to athletics. Topics include recognition of injuries, conditioning, nutrition, health and wellness, rehabilitation, first aid and CPR. Must be willing to work long hours after school and on some weekends; must be in good physical condition; must complete the application. Each student will enroll in the class and be selected as a student athletic trainer based on their performance and behavior.

PE Foundations of Personal Fitness – Girls and Boys Physical Education Course #: 08090110

Recommended Grade Placement: 9 1 Credit

This course focuses on the teaching of skills, the acquisition of knowledge, and the development of attitudes through movement. The class will include a variety of recreational activities, fitness, lifetime sports, team sports, and weight training and conditioning.

PE Outdoor Adventures Course #: 08220350

Recommended Grade Placement: 10-12 1 Credit

Outdoor Adventures is a fun and exciting co-ed physical education course. Students are taught life-long skills by using an integrated curriculum of science, math, writing, critical thinking skills, and computer technology. The focus is on outdoor activities such as: archery, orienteering, survival skills, first aid/CPR, trip planning, angling, tackle crafts, hiking, backpacking, camping, outdoor cooking, conservation/environmental issues and

certifications through the Texas Parks & Wildlife Department (TPWD) and the American Heart Association. On campus activities include: archery, angling, CPR/first aid, survival skills, trip planning, tackle crafts, and orienteering.

PE Aerobic Activities Course #: 08220115
Recommended Grade Placement: 10-12 1 Credit

This course focuses on the teaching of skills, the acquisition of knowledge, and the development of attitudes through movement to develop a physically active lifestyle that improves health and enjoyment. The class will involve a variety of recreational activities that may include aerobic dance, jogging, power walking, recreational dance, and step aerobics and promote cardiovascular endurance, muscular strength and endurance, flexibility, and healthy body composition.

PE Individual and Team Sports Course #: 08220220
Recommended Grade Placement: 10-12 1 Credit

This class would consist of activities that challenge the student to promote body awareness through conditioning exercises, weight training, and cardiovascular activity. Sports would include badminton, bowling, golf, gymnastics, horseshoes, table tennis, tennis, walking, and weights, and team-oriented sports and activities such as basketball, flag football, floor hockey, kickball, soccer, softball, ultimate Frisbee, volleyball, and wiffleball.

PE Weight Training and Conditioning Course #: 08220120
Recommended Grade Placement: 10-12 1 Credit

Proper lifting procedures, elementary anatomy and physiology, related to lifting, various types of lifting programs, and several cardiovascular conditioning programs are implemented in this course. This course satisfies the knowledge and skills for Aerobic Activities PE credit.

Wrestling I Course #: see table above
Recommended Grade Placement: 9 1 Credit

This course introduces students to the fundamentals of wrestling. Emphasis is placed on basic techniques, rules, and the principles of sportsmanship. Students will learn essential wrestling moves, stances, and strategies while focusing on physical conditioning and injury prevention. The course also covers the history of wrestling and its role in physical education.

Wrestling II Course #: see table above
Recommended Grade Placement: 10 1 Credit

Building on the foundation from the Introduction course, this class delves deeper into intermediate wrestling techniques and strategies. Students will refine their skills in both offensive and defensive maneuvers, including takedowns, escapes, and reversals. The course also introduces match strategies and mental preparation, enhancing students' ability to compete in more challenging scenarios.

Wrestling III Course #: see table above

Recommended Grade Placement: 11 1 Credit

This advanced course focuses on sophisticated wrestling techniques and competitive strategies. Students will engage in more rigorous training, including advanced grappling techniques, counter-wrestling, and match analysis. Emphasis will be placed on tactical decision-making, strength conditioning, and developing a personal wrestling style. The course prepares students for high-level competition and leadership roles within the sport.

Wrestling IV Course #: see table above

Recommended Grade Placement: 12 1 Credit

The capstone course for wrestling enthusiasts, this class integrates performance optimization with coaching principles. Students will enhance their personal wrestling skills while learning to instruct and mentor others. The curriculum includes advanced training methods, injury rehabilitation, and effective coaching strategies. Students will also have opportunities to participate in competitive events and assist in coaching younger wrestlers.

Other Electives

AVID I Course #: 10099100

Recommended Grade Placement: 9 1 Credit

Prerequisite: Application and selection process

AVID stands for Advancement via Individual Determination: AVID is a ninth- through twelfth-grade system to prepare students in the academic middle — B, C, and even D students — who have the desire to go to college and the willingness to work hard. These are students who are capable of completing rigorous curriculum but are falling short of their potential. Typically, they will be the first in their families to attend college. AVID pulls these students out of unchallenging courses and puts them on the college track: acceleration instead of remediation.

AVID II Course #: 10109110

Recommended Grade Placement: 10 1 Credit

Prerequisite: Application and selection process

AVID stands for Advancement via Individual Determination: AVID is a ninth- through twelfth-grade system to prepare students in the academic middle — B, C, and even D students — who have the desire to go to college and the willingness to work hard. These are students who are capable of completing rigorous curriculum but are falling short of their potential. Typically, they will be the first in their families to attend college. AVID pulls these students out of unchallenging courses and puts them on the college track: acceleration instead of remediation.

AVID III Course #: 10119111

Recommended Grade Placement: 11 1 Credit

Prerequisite: Application and selection process

AVID stands for Advancement via Individual Determination: AVID is a ninth- through twelfth-grade system to prepare students in the academic middle — B, C, and even D students — who have the desire to go to college and the willingness to work hard. These are students who are capable of completing rigorous curriculum but are falling short of their potential. Typically, they will be the first in their families to attend college. AVID pulls these students out of unchallenging courses and puts them on the college track: acceleration instead of remediation.

AVID IV Course #: 10129112

Recommended Grade Placement: 12 1 Credit

Prerequisite: Application and selection process

AVID stands for Advancement via Individual Determination: AVID is a ninth- through twelfth-grade system to prepare students in the academic middle — B, C, and even D students — who have the desire to go to college and the willingness to work hard. These are students who are capable of completing rigorous curriculum but are falling short of their potential. Typically, they will be the first in their families to attend college. AVID pulls these students out of unchallenging courses and puts them on the college track: acceleration instead of remediation.

Junior Reserve Officers' Training Corps I (JROTC) Course #: 10220810
Recommended Grade Placement: 9-12 1 Credit
Prerequisite: Application

JROTC programs were designed to augment the service academies in producing leaders and managers for the armed forces. Each branch of the service has a specific set of courses and training which officers must complete prior to joining. This program is a stimulus for promoting graduation from high school, and it provides instruction and rewarding opportunities that will benefit the student, community, and nation. The JROTC program intends to teach cadets to appreciate the ethical values and principles that underlie good citizenship, to develop leadership potential while living and working cooperatively with others, to be able to think logically and to communicate effectively with others, both orally and in writing, to appreciate the importance of physical fitness in maintaining good health, to understand the importance of high school graduation for a successful future and learn about college and other advanced educations and employment opportunities, to develop mental management abilities, to become familiar with military history as it relates to America's culture, and understand the history, purpose, and structure of the military services, and to develop the skills necessary to work effectively as a member of a team. **1 PE Sub credit.**

Junior Reserve Officers' Training Corps II (JROTC) Course #: 10220820
Recommended Grade Placement: 10-12 1 Credit
Prerequisite: Application and JROTC I

See course description for JROTC I. PE sub credit for year I only.

Junior Reserve Officers' Training Corps III (JROTC) Course #: 10220830
Recommended Grade Placement: 11-12 1 Credit
Prerequisite: Application and JROTC II

See course description for JROTC I. PE sub credit for year I only.

Junior Reserve Officers' Training Corps IV (JROTC) Course #: 10220840
Recommended Grade Placement: 12 1 Credit
Prerequisite: Application and JROTC III

See course description for JROTC I. PE sub credit for year I only.

Path To College & Career II Course #: 10229110
Recommended Grade Placement: 10 1 Credit

The Path to College & Career Prep courses helps advance intellectual curiosity, conscientiousness, dependability, emotional stability, and perseverance through tasks that foster deeper levels of thinking and reasoning in the four core content areas. The course will focus on developing the habits and skills that are expected in college study and the workforce. Students will be expected to meet the rigor of the Recommended High School Plan (RHSP).

Path To College & Career III Course #: 10229120
Recommended Grade Placement: 11 1 Credit

The Path to College & Career Prep courses helps advance intellectual curiosity, conscientiousness, dependability, emotional stability, and perseverance through tasks that foster deeper levels of thinking and reasoning in the four core content areas. The course will focus on developing the habits and skills that are expected in college study and the workforce. Students will be expected to meet the rigor of the Recommended High School Plan (RHSP).

Path To College & Career IV Course #: 10229130
Recommended Grade Placement: 12 1 Credit

The Path to College & Career Prep courses help advance intellectual curiosity, conscientiousness, dependability, emotional stability, and perseverance through tasks that foster deeper levels of thinking and reasoning in the four core content areas. The course will focus on developing the habits and skills that are expected in college study and the workforce. Students will be expected to meet the rigor of the Recommended High School Plan (RHSP).

Student Leadership Course #: 10229400
Recommended Grade Placement 11 - 12 1 Credit
Prerequisite: Application and selection process

This class is open to junior and senior students who want to have a positive impact on their high school. It is preferable that students be involved in Student Council or have other school leadership positions. This is a hands-on, lab-oriented class with an emphasis on group and individual projects. Leadership skills will be explored, discussed, and utilized. Among these skills will be parliamentary procedure, group dynamics, team building, goal setting, and communication. (State credit for one year only)

Team Sports Officiating Course #: 08223900
Recommended Grade Placement: 9-12 1 Credit

Students enrolled in the Team Sport Officiating course will learn rules and regulations of selected team sports, developing skills in the area of communication, decision-making, and conflict management, which are needed to officiate team sport competitions. They will work with coaches, players, other officials, and parents. The expectation is that students will have the ability to officiate at various levels and manage responsibilities that come with the role. Students will develop a personal fitness and injury prevention plan that directly relates to the needs of an official. Students will understand and apply time management skills required and recognize legal rights and responsibilities of an official involved with youth sports in the 21st century. Cardiopulmonary resuscitation (CPR), use of an automated external defibrillator (AED), and basic first aid skills will be taught in class. *Students will be certified in CPR/AED first aid and receive an officiating certificate upon successful completion of course.*

Teen Leadership I Course #: 10229600

Recommended Grade Placement: 11-12 1 Credit

Prerequisite: Application and selection process

Students in the Teen Leadership program will learn how to feel confident about their lives, plan time wisely, build and sustain healthy relationships, effectively speak in front of a group, use their money carefully and efficiently, take responsibility for their own actions and attitudes, and develop professional leadership skills. Students who have taken Teen Leadership discovered a real bond with their classmates from all age groups and cultures. They felt prepared for future leadership roles as examples for peers and teammates able to stand out from the crowd and ready to lead the way. The program is a highly interactive experience where students have the opportunity to present speeches, participate in group discussions and activities, write journals, work on team building and self-esteem.

Teen Leadership II Course #: 10229650

Recommended Grade Placement: 11-12 1 Credit

Prerequisite: Application and selection process

Teen Leadership II is a program offered to upper-level students who have completed and passed Teen Leadership I class requirements. This class involves the application of the lessons learned in Teen Leadership I while mentoring elementary students and participating in school and community service. Teen Leadership students are responsible for their own transportation to and from their assigned school. Students will have the opportunity to further develop their own leadership skills as well as meet and discuss with civic and community leaders about future prospects for leadership. Students must complete and return an application by the due date and have good attendance and positive teacher evaluations to be considered for this course.

Career and Technical Education

Career and Technical Education provides the opportunities for students to take a sequence of courses in high school that prepare them for entry-level work in a career path. All CTE Programs of Study lead to either an industry certification in that area or college credit.

TABLE OF CONTENTS

Click on any item in the Table of Contents to navigate to that section.

CTE DUAL CREDIT DEGREES AND COLLEGE CERTIFICATES

- Automotive Repair
- Aviation Maintenance
- Computer Programming
- Criminal Justice
- Crowley Business Academy
- Culinary Arts
- Distribution, Logistics, and Warehousing
- Electronics Technology
- Pharmacy Technician
- Unmanned Autonomous Vehicles/Systems (UAV/UAS)

AGRICULTURAL, FOOD & NATURAL RESOURCES

Animal Science Program of Study
Agricultural Technology & Mechanical Systems Program of Study
Plant Science Program of Study

ARCHITECTURE AND CONSTRUCTION

Architectural Drafting & Design Program of Study
Construction Technology Program of Study

ARTS, AUDIO VISUAL TECHNOLOGY AND COMMUNICATIONS

Graphic Design and Interactive Media Program of Study
Digital Communications Program of Study

BUSINESS, MARKETING, AND FINANCE
Accounting and Financial Services Program of Study
Business Management Program of Study
Entrepreneurship Program of Study

EDUCATION AND TRAINING
Early Learning Program of Study
Teaching and Training Program of Study

HEALTH SCIENCE
Diagnostic and Therapeutic Services (Medical Assistant) Program of Study
Diagnostic and Therapeutic Services (Pharmacy Technician) Program of Study
Biomedical Science Program of Study

HOSPITALITY AND TOURISM
Culinary Arts Program of Study

HUMAN SERVICES
Family and Community Services Program of Study
Cosmetology Program of Study
Barbering Program of Study

INFORMATION TECHNOLOGY
Information Technology Support and Services Program of Study
Networking Systems Program of Study
Cybersecurity Program of Study
Programming and Software Development Program of Study

LAW AND PUBLIC SERVICE
Emergency Services Program of Study
Law Enforcement Program of Study
Legal Services Program of Study

MANUFACTURING
Electronics Technology Program of Study

ENGINEERING

Engineering Foundations Program of Study
Mechanical and Aerospace Engineering Program of Study
Unmanned Autonomous Vehicles/Systems (Drones) Program of Study

TRANSPORTATION, DISTRIBUTION, AND LOGISTICS

Automotive Program of Study
Aviation Maintenance Program of Study
Aviation (Pilots) Program of Study
Distribution, Logistics, and Warehousing Program of Study

CTE College Credit Certificates and Degrees

For more information, contact the Advanced Academic Coordinators at each high school campus or the CTE Coordinator at the Bill R. Johnson CTE Center.

Automotive Repair – Tarrant County College

Credential: Level 1 Certificate in Engine Analysis

In this program, students will prepare to be an entry-level automobile service technician in a dealership or maintenance center, learn about engines & tools and how they work, and work with their hands & develop practical solutions to problems. They will be prepared for tasks that they will perform at work like: testing mechanical systems to diagnose issues, repair or replace worn or damaged mechanical parts, and diagnose & repair problems.

	Freshman	Sophomore	Junior	Senior
College Courses	Only high school course this year. Small Engine Technology I	Fall course: **AUMT 1405** Introduction to Automotive Technology Spring course: **AUMT 1407** Automotive Electrical Systems	Fall course: **AUMT 2317** Automotive Engine Performance Analysis I Spring course: **AUMT 2434** Automotive Engine Performance Analysis II	Fall course: **AUMT 2321** Automotive Electrical Diagnosis and Repair Spring course: **LMGT 2388** Internship
High School Credit Earned	Small Engine Technology I	Principles of Transportation Automotive Basics	Automotive Technology I	Automotive Technology II

Aviation Maintenance

Credential: Level 2 Certificate in Aviation Maintenance Technology-Powerplant

In this program, students will prepare to ultimately take the FAA examination for the Powerplant license. Students will learn how to properly inspect aircraft components for cracks, breaks, or other problems, replace broken or defective parts and perform operational testing, follow regulations by conducting routine and special inspections—before & after working on an aircraft, and to document all maintenance and repairs per FAA regulations.

	Freshman	Sophomore	Junior	Senior
College Courses	Fall courses: **AERM 1101** Introduction to Aviation (8 weeks) **AERM 1208** Federal Aviation Regulations (8 weeks) **AERM 1303** Shop Practices Spring courses: **AERM 1340** Aircraft Propellers **AERM 1310** Ground Operations	Fall courses: **AERM 1205** Weight and Balance **AERM 1315** Aviation Science Spring course: **AERM 1314** Basic Electricity	Fall courses: **AERM 1344** Aircraft Reciprocating Engines **AERM 1351** Aircraft Turbine Engine Theory Spring course: **AERM 1456** Aircraft Powerplant Electrical	Fall courses: **AERM 2351** Aircraft Turbine Engine Overhaul **AERM 1357** Fuel Metering and Induction Systems Spring course: **AERM 2547**Aircraft Reciprocating Engine Overhaul **AERM 2252** Aircraft Powerplant Inspection
High School Credit Earned	Introduction to Aircraft Technology Principles of Transportation Systems Occupational Safety and Environmental Technology I	Aircraft Airframe Technology + Advanced Transportation Systems Laboratory	Aircraft Powerplant Technology + Advanced Transportation Systems Laboratory	Practicum in Transportation Systems + Extended Practicum in Transportation Systems

Computer Programming

Credential: Level 1 Certificate in Information Technology: Programming I

Credential: AAS in Information Technology: Programming

In this program, students will be able to combine creative and technical skills in your work. Students will learn to use different coding languages, such as C++ or Java, to write programs that perform specific functions. They will test programs and applications for errors, fix faulty lines of code and recheck them to make sure they produce the desired results, update existing programs as needs and requirements change or expand, and translate software developers' designs into instructions computers can follow.

	Freshman	Sophomore	Junior	Senior
College Courses	Fall courses: **BCIS 1305** Business Computer Applications **MUSI 1306** Music Appreciation Spring courses: **ITNW 1309** Fundamentals of Cloud Computing **SPCH 1321** Business and Professional Communication	Fall courses: **COSC 1436** Programming Fundamentals I Spring course: **ITSE 1479** Introduction to Scripting Languages	Fall courses: **COSC 1437** Programming Fundamentals II **ITSE 2417** JAVA Programming **ENGL 1301** English Composition I Spring course: **CPMT 1403** Introduction to Computer Technology **ITSY 1300** Fundamentals of Information Security **ENGL 1302** English Composition II (optional)	Fall courses: **COSC 2436** Programming Fundamentals III **ITNW 1425** Fundamentals of Networking Technologies **MATH 1314** College Algebra Spring course: **ITSE 2409** Database Programming **ITSE 1450** System Analysis & Design **ECON 2301** Principles of Macroeconomics
High School Credit Earned	Business Information Management I Music Theory (HS Fine Arts credit) Professional Communications Fundamentals of Computer Science	Computer Science I Networking	Computer Science II AP Computer Science Principles English 3 Principles of Information Technology Foundations of Cybersecurity	Game Programming & Design Practicum in STEM Independent Studies in Math Computer Science III Economics with Emphasis on the Free Enterprise System and its Benefits

Criminal Justice

Credential: AAS in Criminal Justice

In this program, students will study various areas of the law in order to help them choose from a diverse selection of careers by completing courses covering various aspects of the law. Students will learn material which will prepare them for what they will do for work in such careers as police officer, correctional officer, or lawyers depending upon which one they are most interested in.

	Freshman	Sophomore	Junior	Senior
College Courses	Fall courses: **CRIJ 1301** Introduction to Criminal Justice **SPCH 1321** Business and Professional Communication Spring courses: **CRIJ 2313** Correctional Systems and Practices **MUSI 1306** Music Appreciation	Fall courses: **CRIJ 1306** Court Systems and Practices Spring course: **CRIJ 2328** Police Systems and Practices **GOVT 2305** Federal Government	Fall courses: **CRIJ 2323** Legal Aspects of Law Enforcement **CJSA 1347** Police Organization and Administration **ENGL 1301** English Composition I Spring course: **CRIJ 1310** Fundamentals of Criminal Law **CJLE 1345** Intermediate Crime Scene Investigation **ENGL 1302** English Composition II	Fall courses: **CRIJ 1313** Juvenile Justice System **CRIJ 1307** Crime in America **MATH 1314/1342** College Algebra/ Elementary Statistical Methods **GOVT 2306** Texas Government Spring course: **CJSA 2388** Internship **CRIJ 2314** Criminal Investigation **SOCI 1301** Introduction to Sociology
High School Credit Earned	Principles of Law, Public Safety, Corrections, and Security Professional Communications Correctional Services Music Theory (HS Fine Arts credit)	Court Systems and Practices Political Science I United States Government	Law Enforcement I Public Management and Administration English 3 Law Enforcement II Forensic Science	Practicum in Law, Public Safety, Corrections, and Security Forensic Psychology Independent Studies in Math/Statistics Social Studies Advanced Studies Criminal Investigation Sociology

Crowley Business Academy

Credential: Level 1 Certificate in Business I

In this program, students will take classes that will help them build a strong foundation in business principles and practices. Coursework will help students prepare for what they will do at work by allowing them to gain the necessary knowledge and skills to manage administrative services in an organization, build relationships and network within your organization & in the business community at large, and to communicate effectively—in person and online.

	Freshman	Sophomore	Junior	Senior
College Courses	Fall course: **BUSI 1301** Business Principles Spring course: **BMGT 1305** Communications in Management	Fall course: **MRKG 1311** Principles of Marketing Spring course: **BUSI 2301** Business Law	Fall course: **ECON 2301** Principles of Macroeconomics Spring course: **ECON 2302** Principles of Microeconomics	Fall course: **ACCT 2301** Principles of Financial Accounting Spring course: **ACCT 2302** Principles of Managerial Accounting
High School Credit Earned	Principles of Business, Marketing, & Finance Professional Communications	Marketing Business Law	Economics with Emphasis on Free Enterprise System and Its Benefits Economics Advanced Studies	Accounting I Accounting II

Culinary Arts

Credential: Level 1 Certificate in Culinary Arts Foundation

The Culinary Arts and Hospitality Programs provide students with the knowledge and skills to work in culinary and hospitality worksites. A strong curriculum, designed by professional chefs and hospitality professionals, has created a pathway to a wide range of culinary and hospitality careers.

Students will gain an in-depth understanding of food safety and sanitation as well as supervision theory. In the lab classes, students will learn fundamental cooking and baking techniques as well as advanced cooking skills. Students will also learn advanced food service management theory, including food and labor cost controls.

	Freshman	Sophomore	Junior	Senior
College Courses	Fall course: **CHEF 1305** Sanitation and Safety Spring course: **CHEF 1301** Basic Food Preparation	Fall course: **HAMG 1321** Introduction to the Hospitality Industry Spring course: **RSTO 1313** Hospitality Supervision	Fall course: **PSTR 1301** Fundamentals of Baking Spring course: **CHEF 1310** Garde Manager	Fall course: **CHEF 2331** Advanced Food Preparation Spring course: **CHEF 1264** Practicum
High School Credit Earned	Introduction to Culinary Arts	Culinary Arts	Advanced Culinary Arts	Practicum in Culinary Arts

<u>Distribution, Logistics, and Warehousing</u> – Tarrant County College

Credential: Level 1 Certificate in Warehouse Management

Credential: Level 1 Certificate in Transportation Management

Credential: AAS in Logistics and Supply Chain Management

Courses in this major will help students prepare for what they will do at work by allowing them to gain the hands-on training & knowledge they need to be a logistics & supply chain management professional. Students will enjoy using quick problem-solving skills in a fast-paced environment to keep logistics activity on time, on budget & running smoothly. They will oversee activities that include purchasing, transportation, inventory management, and warehousing while learning to coordinate the movement of supplies & raw materials necessary for businesses or organizations to operate. They will also distribute products or services where they are in demand and learn to use software systems to plan & track the movement and storage of products.

	Freshman	Sophomore	Junior	Senior
College Courses	<u>Fall courses:</u> **IBUS 1301** Principles of Exports **LMGT 1319** Introduction to Business Logistics <u>Spring courses:</u> **IBUS 1302** Principles of Imports **LMGT 1325** Warehouse and Distribution Center Management	<u>Fall courses:</u> **BCIS 1305** Business Computer Applications **LMGT 1323** Domestic & International Transportation Management <u>Spring courses:</u> **SPCH 1321** Business & Professional Communication **MUSI 1306** Music Appreciation **LMGT 2334** Principles of Traffic Management	<u>Fall courses:</u> **ENGL 1301** English Composition I **BMGT 1313** Principles of Purchasing <u>Spring courses:</u> **BUSI 2301** Business Law **MRKG 1311** Principles of Marketing ENGL 1302 * (optional) English Composition II	<u>Fall courses:</u> **BMGT 2331** Principles of Quality Management **BMGT 1331** Production & Operations Management **MATH 1314** College Algebra GOVT 2305 * (optional) Federal Government <u>Spring courses:</u> **LMGT 2388** Internship **LMGT 2371** Leadership in Logistics & Supply Chain Management **ACCT 2301** Principles of Financial Accounting **ECON 2301** Principles of Macroeconomics
High School Credit Earned	Global Business Principles of Distribution & Logistics Distribution & Logistics Logistics Engineering	BIM 1 (Bus Info Mgt) Management of Transportation Systems Professional Communication Music Appreciation	Concepts of Distribution & Logistics English 3 (a) Business Law Principles of Business/Marketing English 3 (b)	Practicum in Distribution & Logistics Advanced Topics in Math Government Accounting I Economics

Electronics Technology (new - cohort starting 2025-2026)

Credential: Level 1 Certificate in Micro-Electronics

In this program students will gain a solid technical background and the manual skills to read schematics & diagrams to figure out the best way to build or repair equipment. They will use soldering equipment & hand tools to build equipment and install parts. The curriculum covers a broad range of topics related to electronics, including circuit analysis, digital electronics, microprocessors, telecommunications, signal processing, and control systems. Students learn about electronic components, devices, and systems, as well as how to design, troubleshoot, and repair electronic circuits and systems.

	Freshman	Sophomore	Junior	Senior
College Courses	Only high school course this year. Principles of Applied Engineering	Only high school course this year. AC/DC Electronics	Fall course: Dual Credit courses coming in 2027-2028 Spring course: Dual Credit courses coming in 2027-2028	Fall course: Dual Credit courses coming in 2028-2029 Spring course: Dual Credit courses coming in 2028-2029
High School Credit Earned	Principles of Applied Engineering	AC/DC Electronics	Solid State Electronics	Digital Electronics

Pharmacy Technician

Credential: Level 1 Certificate in Pharmacy Technician

The Pharmacy Technician Program provides an opportunity for hands-on care and the performance of routine tasks under the supervision of Certified Pharmacy Technicians within the classroom, lab, and clinical setting. Students learn basic skills related to medications such as abbreviations, medication classifications, appropriate dosages, side effects, and routes of medication administration. Students will also learn federal and state laws related to the practice of pharmacy, infection control, pharmaceutical calculations, and other procedures related to the role. This program prepares students for an exciting career in healthcare, providing the technical skills, knowledge and clinical applications necessary to pass the Pharmacy Technician Certification Exam.

	Freshman	Sophomore	Junior	Senior
College Courses	Fall course: **PHRA 1301** Introduction to Pharmacy Spring course: **PHRA 1305** Drug Classification	Fall course: **PHRA 1349** Institutional Pharmacy Practice Spring course: **PHRA 1313** Community Pharmacy practice	Fall course: **PHRA 1345** Compounding Sterile Preparations Spring course: **PHRA 1202** Pharmacy Law	Fall course: **PHRA 1243** Pharmacy Technician Certification Review **PHRA 1209** Pharmaceutical Math I Spring course: **PHRA 1260** Clinical – Pharmacy Technician/Assistant **PHRA 1247** Pharmaceutical Math II
High School Credit Earned	Introduction to Pharmacy Science	Pharmacy I	Pharmacy II	Practicum in Health Science Mathematics for Medical Professionals

Unmanned Autonomous Vehicles/Systems (UAV/UAS)

Credential: Level 1 Certificate in Geographical Information Systems

In this program, students will be able to work in a variety of fields, including marketing, healthcare & environmental conservation. They will work with data, statistics & computing to create useful graphics that can help in emergency situations, such as tornado or hurricane relief. Students will begin to prepare for what they will do in a work environment such as using GIS software suites to produce graphical representations of data (maps), tables & reports, updating & modify existing GIS databases, and performing data analysis, application development & programming development within GIS software.

	Freshman	Sophomore	Junior	Senior
College Courses	Only high school course this year. Robotics I	Only high school course this year. Introduction to UAV/UAS	Fall course: **GISC 1402** Understanding Geographic Information Systems Spring course: **GISC 2402** Geographic Information Systems Design with Raster Analysis	Fall course: **GISC 2401** Data Acquisition and Analysis in Geographic Information Systems **GISC 2404** Geographic Information Systems Design with Vector Analysis Spring course: **GISC 2420** Intermediate Geographic Information Systems
High School Credit Earned	Robotics I	Introduction to Unmanned Aerial Systems	Geographic Information Systems Geographic Information Systems with Raster Systems	Data Acquisition and Analysis in GIS Practicum in STEM

Agriculture, Food, and Natural Resources Career Cluster

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

Statewide Program of Study: Animal Science

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

Secondary Courses for High School Credit

- Principles of Agriculture, Food & Natural Resources
- Small Animal Management
- Equine Science
- Livestock Production
- Veterinary Medical Applications
- Advanced Animal Science
- Practicum of Agriculture, Food & Natural Resources



Example Postsecondary Opportunities

Apprenticeships
- Reproduction Technician

Associate Degrees
- Biological and Physical Sciences
- Entomology

Bachelor's Degrees
- Animal Science
- Zoology/Animal Biology

Master's, Doctoral, and Professional Degrees
- Marine Sciences
- Biotechnology

Additional Stackable IBCs/License
- Veterinarian
- Certified Veterinary Technician

Aligned Advanced Academic Courses

AP	AP Biology

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

Work-Based Learning and Expanded Learning Opportunities

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

Aligned Industry-Based Certifications

- Agricultural Biotechnology
- AgriLife Veterinary Assistant Certificate
- Certified Veterinary Assistant, Level I
- Elanco Fundamentals of Animal Science Certification
- Elanco Veterinary Medical Applications Certification
- Equine Management and Evaluation Certification
- Feedyard Technician in Cattle Care and Handling
- Licensed Veterinary Technician
- Production Agriculture - Job Ready
- Small Animal Science and Technology

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

Example Aligned Occupations

Veterinary Assistants and Laboratory Animal Caretakers
Median Wage: $29,906
Annual Openings: 1,348
10-Year Growth: 24%

Veterinary Technologists and Technicians
Median Wage: $33,679
Annual Openings: 1,217
10-Year Growth: 24%

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

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

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

Animal Science

Principles of Agriculture, Food and Natural Resources Course #: 07081000

Recommended Grade Placement: 9 1 Credit

This course helps students prepare for careers in agriculture, food and natural resources. Students must develop academic skills and knowledge in agriculture. This course covers career opportunities, leadership, communications, and the FFA. Technical agricultural topics covered will include soils, plants, animals, agricultural construction, food science, and welding.

Small Animal Management Course #: 07221520

Recommended Grade Placement: 9-11 ½ Credit

In this course, students acquire knowledge and skills related to animal systems, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. Suggested small animals which may be included in the course of study include, but are not limited to, small mammals, amphibians, reptiles, avian, dogs, and cats.

Equine Science Course #: 07221500

Recommended Grade Placement: 9-11 ½ Credit

A course designed to develop knowledge and skills pertaining to the selection, nutrition, reproduction, health, and management of horses.

Livestock Production Course #: 07221530

Recommended Grade Placement: 10-11 1 Credit

In this course, students will examine animal systems and the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. Animal species to be addressed in this course may include, but are not limited to, beef cattle, dairy cattle, swine, sheep, goats, and poultry.

Advanced Animal Science Course #: 07221225

Recommended Grade Placement: 11-12 1 Credit

Approved by the State Board for Education for 4th Science Credit | Prerequisites: Biology and Chemistry or Integrated Physics and Chemistry (IPC); Algebra I and Geometry; and either Small Animal Management, Equine Science, or Livestock Production. Recommended prerequisite: Veterinary Medical Applications.

This course is designed to examine the interrelatedness of human, scientific, and technological dimensions of livestock production. Instruction is designed to expand one's knowledge of the scientific and technological dimensions of resources necessary for animal production.

Veterinary Medical Applications Course #: 07221540

Recommended Grade Placement: 11-12 1 Credit

Prerequisites: Small Animal Management and Equine Science or Livestock Production

A course designed to review veterinary practices as they relate to both large and small animal species. Students will have the opportunity to take the Texas Veterinary Medical Association, Certified Veterinary Assistant Level I Exam.

Practicum in Agriculture, Food and Natural Resources Course #: 07221950

Recommended Grade Placement: 12 2 Credits

Prerequisite: At least one prior Agriculture, Food, and Natural Resources credit

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 cluster. Students are required to serve in paid or unpaid internship opportunities. A student may repeat this course once for credit provided that the student is experiencing different aspects of the industry and demonstrating proficiency in additional and more advanced knowledge and skills.

Agriculture, Food, and Natural Resources Career Cluster

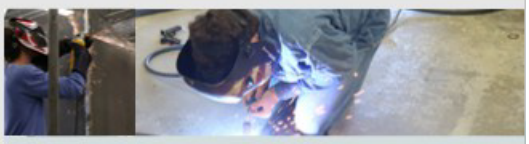
The Agriculture, Food, and Natural Resources (AFNR) career cluster focuses on the essential elements of life, food, water, land, and air. This career cluster includes occupations ranging from farmer, rancher, and veterinarian to geologist, land conservationist, and florist.

Statewide Program of Study: Agricultural Technology and Mechanical Systems

The Agricultural Technology and Mechanical Systems program of study focuses on occupational and educational opportunities associated with applying engineering technology and biological science to agricultural problems related to power and machinery, electrification, structures, soil and water use, and processing agricultural products. This program of study includes diagnosing, repairing, or overhauling farm machinery and vehicles, such as tractors, harvesters, dairy equipment, and irrigation systems.

Secondary Courses for High School Credit

- Principles of Agriculture, Food & Natural Resources
- Agricultural Mechanics & Metal Technologies
- Agricultural Structures, Design & Fabrication
- Agricultural Equipment Design & Fabrication
-



Example Postsecondary Opportunities

Apprenticeships
- Farm Equipment Mechanic I

Associate Degrees
- Diesel Mechanics Technology
- Industrial Mechanics and Maintenance Technology

Bachelor's Degrees
- Agricultural Engineering
- Agricultural Systems Management

Master's, Doctoral, and Professional Degrees
- Agricultural Engineering
- Industrial Technology

Additional Stackable IBCs/License
- Diesel Equipment Technology-Off Highway Specialization CER1
- Accredited Farm Manager

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

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Participate in a farm mechanic apprenticeship at an equipment production company • Intern at an equipment manufacturing facility working with agricultural engineers
Expanded Learning Opportunities	• Participate in an FFA career, leadership, and speaking contest like an agriscience fair • Participate in an agriculture robotics event

Aligned Industry-Based Certifications

- Agriculture Mechanics
- API 1104 Welding Pipelines and Related Facilities
- AWS Certified Welder
- AWS D1.1 Structural Steel
- AWS D9.1 Sheet Metal Welding
- AWS SENSE Level I: Entry Welder
- Feedyard Technician in Machinery Operation, Repair and Maintenance
- Machining Measurement, Material, and Safety Level I
- NCCER Core
- NCCER Welding Level I
- Welding - Job Ready
- Industrial Technology Maintenance (ITM) - Basic Pneumatic Systems
- Industrial Technology Maintenance (ITM) – Maintenance Welding

Successful completion of the Agricultural Technology and Mechanical Systems program of study will fulfill requirements of the Business and Industry endorsement.

Example Aligned Occupations

Farm Equipment Mechanics and Service Technicians
Median Wage: $46,582
Annual Openings: 326
10-Year Growth: 23%

Mobile Heavy Equipment Mechanics
Median Wage: $57,943
Annual Openings: 2,637
10-Year Growth: 31%

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

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

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

Agricultural Technology and Mechanical Systems

Principles of Agriculture, Food and Natural Resources Course #: 07081000

Recommended Grade Placement: 9 1 Credit

This course helps students prepare for careers in agriculture, food and natural resources; students must develop academic skills and knowledge in agriculture. This course covers career opportunities, leadership, communications, and the FFA. Technical agricultural topics covered will include: soils, plants, animals, agricultural construction, food science, and welding.

Agricultural Mechanics & Metal Technologies Course #: 0722170

Recommended Grade Placement: 10-11 1 credit

A course designed to introduce basic theory and specialized skills in agricultural mechanics. Skills to be developed include tool identification and safe use, painting, metal working, and welding processes.

Agricultural Structures Design & Fabrication Course #: 07221772

Recommended Grade Placement: 11-12 *2 Credit*

Recommended Prerequisite: Agricultural Mechanics & Metal Technologies

In Agricultural Structures Design & Fabrication, students will explore career opportunities, entry requirements, and industry expectations. To prepare for careers in mechanized agriculture and technical systems, students must attain knowledge and skills related to agricultural structures design and fabrication. To prepare for success, students need opportunities to learn, reinforce, apply, and transfer their academic knowledge and technical skills in a variety of settings.

Agricultural Equipment Design & Fabrication Course # 07221742

Recommended Grade Placement: 11 *2 Credits*

Prerequisite: Agriculture Mechanics & Metal Technologies

In Agricultural Equipment Design and Fabrication, students will acquire knowledge and skills related to the design and fabrication of agricultural equipment. To prepare for careers in mechanized agriculture and technical systems, students must attain knowledge and skills related to agricultural equipment design and fabrication.

Agriculture, Food, and Natural Resources Career Cluster

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

Statewide Program of Study: Plant Science

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

Secondary Courses for High School Credit

- Principles of Agriculture, Food, & Natural Resources
- Floral Design
- Landscape Design & Management
- Turf Grass Management
- Horticultural Science
- Advanced Floral Design
- Practicum in Agriculture, Food & Natural Resources



Example Postsecondary Opportunities

Apprenticeships
- Horticulturist

Associate Degrees
- Biology/Biological Sciences
- Biological and Physical Sciences

Bachelor's Degrees
- Horticulture
- Plant Pathology/Phytopathology

Master's, Doctoral, and Professional Degrees
- Plant Breeding
- Botany/Plant Biology

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

Aligned Advanced Academic Courses

AP	AP Biology AP Environmental Science	AP Chemistry

Work-Based Learning and Expanded Learning Opportunities

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

Aligned Industry-Based Certifications

- Agricultural Biotechnology
- BASF Plant Science Certification
- Commercial/Noncommercial Pesticide Applicator
- Commercial/Noncommercial Pesticide Applicator "Vegetation Management" License
- Horticulture - Landscaping - Job Ready
- Landscape Irrigator
- Principles of Floral Design Certification
- Production Agriculture - Job Ready
- Texas Certified Landscape Associate (TCLA)
- Texas Certified Nursery Professional
- Texas State Florists' Association Knowledge Based Floral Certification
- Texas State Florists' Association Level I Floral Certification
- Texas State Florists' Association Level II Floral Certification

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

Example Aligned Occupations

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

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

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

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

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

Plant Science

Principles of Agriculture, Food and Natural Resources Course: #07081000

Recommended Grade Placement: 9 1 Credit

This course helps students prepare for careers in agriculture, food and natural resources; students must develop academic skills and knowledge in agriculture. This course covers career opportunities, leadership, communications, and the FFA. Technical agricultural topics covered will include: soils, plants, animals, agricultural construction, food science, and welding.

Floral Design Course #: 07091610

Recommended Grade Placement: 9-12 1 Credit

Approved by State Board of Education for Fine Arts credit

A course designed to develop skills in the design and arrangement of flowers, foliage, and related plant materials for interior locations. Students will make a variety of floral designs as well as plan a wedding and learn the basics of running a florist. Students will have the opportunity to take a certification exam through the Texas State Florist Association.

Landscape Design & Management Course #: 07220620

Recommended Grade Placement: 10-11 1⁄2 Credit

Landscape Design and Management is designed to develop an understanding of landscape design and management techniques and practices. Students will develop skills related to horticultural systems and workplace knowledge.

Turf Grass Management Course #: 07220625

Recommended Grade Placement: 10-11 1⁄2 Credit

Turf Grass Management is designed to develop an understanding of turf grass management techniques and practices. Students will develop skills related to horticultural systems and workplace knowledge.

Horticulture Science Course #: 07221620

Recommended Grade Placement: 10-11 1 Credit

Horticultural Science is designed to develop an understanding of common horticultural management practices as they relate to food and ornamental plant production. To prepare for careers in horticultural systems, students must attain academic skills and knowledge, acquire technical knowledge and skills related to horticulture and the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations.

Advanced Floral Design Course #: 07091620

Recommended Grade Placement: 11-12 1 Credit

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

Practicum in Agriculture, Food and Natural Resources Course #: 07221950

Recommended Grade Placement: 12 2 Credits

Prerequisite: At least one prior Agriculture, Food, and Natural Resources credit

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 cluster. Students are required to serve in paid or unpaid internship opportunities. A student may repeat this course once for credit provided that the student is experiencing different aspects of the industry and demonstrating proficiency in additional and more advanced knowledge and skills.

Advanced Plant and Soil Science Course #: 07220629

Recommended Grade Placement: 12 1 Credits

Prerequisite: At least one prior Agriculture, Food, and Natural Resources credit

Plant and Soil Science provides a way of learning about the natural world. Students learn how plant and soil science has influenced a vast body of knowledge, that there are still applications to be discovered, and that plant and soil science is the basis for many other fields of science. Investigations, laboratory practices, and field exercises will be used to develop an understanding of current plant and soil science.

Architecture and Construction Career Cluster

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

Statewide Program of Study: Architectural Drafting and Design

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

Secondary Courses for High School Credit

- Principles of Architecture
- Architectural Design I
- Architectural Design II
- Civil Engineering and Architecture
- Practicum in Architectural Design



Example Postsecondary Opportunities

Apprenticeships
- Drafter

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

Bachelor's Degrees
- Civil Engineering
- Construction Engineering
- Surveying Engineering
- Drafting and Design Technology

Master's, Doctoral, and Professional Degrees
- Civil Engineering
- Geographic Information Science and Cartography
- Construction Engineering Technology

Work-Based Learning and Expanded Learning Opportunities

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

Aligned Industry-Based Certifications

- Autodesk Associate (Certified User) 3ds MAX
- Autodesk Associate (Certified User) AutoCAD
- Autodesk Associate (Certified User) Fusion 360
- Autodesk Associate (Certified User) Revit Architecture
- Autodesk Associate (Certified User) Revit for Electrical
- Autodesk Associate (Certified User) Revit for Structural Design
- Autodesk Certified Professional Fusion 360
- Autodesk Certified Professional in AutoCAD for Design and Drafting
- Autodesk Certified Professional in Civil 3D for Infrastructure Design
- Autodesk Certified Professional in Revit for Architectural Design
- Autodesk Certified Professional in Revit for Electrical Design
- Autodesk Certified Professional in Revit for Structural Design
- Certified SOLIDWORKS Associate (CSWA) - Academic
- Certified SOLIDWORKS Associate (CSWA) - Electrical
- Certified SOLIDWORKS Associate (CSWA) - Simulation
- Certified SOLIDWORKS Associate (CSWA) - Sustainability
- Certified SOLIDWORKS Professional (CSWP) - Academic
- Certified SOLIDWORKS Professional (CSWP) - Model Based Definition
- Certified SOLIDWORKS Professional (CSWP) - Simulation
- Certified SOLIDWORKS Professional (CSWPA) - Drawing Tools
- LEED Green Associate
- Residential Plans Examiner - R3

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

Example Aligned Occupations

Architectural and Civil Drafters
Median Wage: $57,424
Annual Openings: 1,366
10-Year Growth: 15%

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

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

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

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

Architectural Drafting and Design

Principles of Architecture Course: 07084010

Recommended Grade Placement: 9 1 Credit

Principles of Architecture provides an overview of 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.

Architectural Design I Course #: 07224310

Recommended Grade Placement: 9-10 1 Credit

Recommended Prerequisite: Geometry

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

Architectural Design II Course #: 07224410

Recommended Grade Placement: 10-11 2 Credits

Prerequisite: Architectural Design I and Geometry

In Architectural Design II, students gain advanced knowledge and skills specific to those needed to enter a career in architecture and construction or prepare a foundation toward a postsecondary degree in architecture, construction science, drafting, interior design, and 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 commercial or residential architectural purposes.

Civil Engineering & Architecture Course #: 07228240

Recommended Grade Placement: 12 1 Credit

Through both individual and collaborative team activities, projects, and problems, students problem solve as they practice common design and development protocols such as project management and peer review. Students develop skill in engineering calculations, technical representation, documentation of design solutions according to accepted technical standards, and use of current 3D architectural design and modeling software to represent and communicate solutions.

Practicum in Architectural Design Course #: 07225810

Recommended Grade Placement: 11-12 2 Credit

Prerequisite: Architectural Design II

This course 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. A student may repeat this course once for credit provided that the student is experiencing different aspects of the industry and demonstrating proficiency and additional and more advanced knowledge and skills.

Architecture and Construction Career Cluster

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

Statewide Program of Study: Construction Technology

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

Secondary Courses for High School Credit

- Principles of Construction
- Construction Technology I
- Construction Technology II
- Practicum in Construction Technology



Example Postsecondary Opportunities

Apprenticeships
- Carpenter

Associate Degrees
- Construction Management
- Construction Engineering Technology
- Building Construction Technology

Bachelor's Degrees
- Construction Engineering
- Construction Science
- Construction Site Management

Master's, Doctoral, and Professional Degrees
- Construction Engineering Technology
- Construction Engineering
- Construction Management
- Project Management

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Intern with a carpenter to practice skills such as measuring materials and assembling structures • Participate in a pre-apprenticeship that includes activities like installing cabinets, drywall, and siding
Expanded Learning Opportunities	• Shadow a construction manager to learn more about how construction teams work together to complete projects • Participate in SkillsUSA

Aligned Industry-Based Certifications

- HBI Pre-Apprenticeship Certificate Training (PACT), Basic Carpentry
- HBI Pre-Apprenticeship Certificate Training (PACT), Core
- HBI Pre-Apprenticeship Certificate Training (PACT), Green Core
- NCCER Carpentry Level I
- NCCER Carpentry Level II
- NCCER Commercial Carpenter
- NCCER Construction Technology Certification Level I
- NCCER Core
- NCCER Painting: Commercial and Residential Level I
- LEED Green Associate

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

Example Aligned Occupations

Drywall and Ceiling Tile Installers
Median Wage: $44,699
Annual Openings: 758
10-Year Growth: 14%

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

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

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

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

Carpentry

Principles of Construction Course #: 07090800
Recommended Grade Placement: 9 1 Credit

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.

Construction Technology I Course #: 07228620
Recommended Grade Placement: 10-11 2 Credits

In Construction Technology, students gain knowledge and skills specific to those needed to enter the work force as carpenters or building maintenance supervisors or prepare for a postsecondary degree in construction management, architecture, or engineering. Students acquire knowledge and skills in safety, tool usage, building materials, codes, and framing.

Construction Technology II Course #: 07228630
Recommended Grade Placement: 11-12 2 Credits
Prerequisite: Construction Technology I

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

Practicum in Construction Technology Course #: 07225820
Recommended Grade Placement: 12 2 Credits
Prerequisite: Construction Technology II

Practicum in Construction Management is an occupationally specific course designed to provide classroom technical instruction or on-the-job training experience. Safety and career opportunities are included in addition to work ethics and job-related study in the classroom. A student may repeat this course once for credit provided that the student is experiencing different aspects of the industry and demonstrating proficiency in additional and more advanced knowledge and skills.

Arts, Audio Visual Technology, and Communication Career Cluster

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

Statewide Program of Study: Graphic Design and Interactive Media

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

Secondary Courses for High School Credit

- Graphic Design and Illustration I
- Commercial Photography I
- Graphic Design & Illustration II
- Commercial Photography II
- Practicum in Commercial Photography
- Practicum in Graphic Design & Illustration



Example Postsecondary Opportunities

Associate Degrees
- Graphic Design
- Digital Arts

Bachelor's Degrees
- Web Page, Digital/Multimedia and Information Resources Design
- Design and Visual Communications

Master's, Doctoral, and Professional Degrees
- Game and Interactive Media Design
- Animation, Interactive Technology, Video Graphics, and Special Effects

Additional Stackable IBCs/License
- Certified Textile Designer (CTD)

Aligned Advanced Academic Courses

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

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Shadow an art director at a branding firm or design agency • Intern in the marketing and communications department of a technology company
Expanded Learning Opportunities	• Participate in SkillsUSA or TSA • Participate in Student Television Network • Join a related co-curricular or extracurricular club such as web development or computer coding

Aligned Industry-Based Certifications

- Adobe Certified Professional in Digital Video Using Adobe Premiere Pro
- Adobe Certified Professional in Graphic Design and Illustration Using Adobe Illustrator
- Adobe Certified Professional in Print and Digital Media Publication Using Adobe InDesign
- Adobe Certified Professional in Visual Design
- Adobe Certified Professional in Visual Design Using Adobe Photoshop
- Adobe Certified Professional in Visual Effects and Motion Graphics Using Adobe After Effects
- Audio-Visual Communications - Job Ready
- Autodesk Associate (Certified User) 3ds MAX
- C++ Certified Associate Programmer
- Certified Entry-Level Python Programmer (PCEP)
- Certified Professional Photographer
- Certified Professional Programmer
- Certified User: Programmer
- CodeHS Python Level I Certification
- Graphic Production Technology - Job Ready
- Oracle Certified Associate Java SE 8 Programmer

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

Example Aligned Occupations

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

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

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

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

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

Graphic Design and Interactive Media

Graphic Design and Illustration I Course #: 07224260

Recommended Grade Placement: 9-11 1 Credit

This class will give students an opportunity to express and design creative ideas visually for a growing field. Art concepts and design strategies will be explored using design principles and art elements for creating logos, magazine covers, posters and more. Students will learn to create and design artwork for projects using Adobe Photoshop.

Commercial Photography I Course #: 07224360

Recommended Grade Placement: 9-11 1 Credit

Students will be expected to develop an understanding of the commercial photography industry with a focus on creating quality photographs. Students will learn commercial composition, printmaking and editing photos in Photoshop.

Graphic Design & Illustration II Course #: 07224460

Recommended Grade Placement: 10-11 2 Credits

Prerequisite: Graphic Design & Illustration I

This advanced class will provide opportunities for students wanting to expand their skills and knowledge of graphic design. Students will use their knowledge to create projects including food truck branding, logos, posters, magazine designs and will help the other classes with sports posters for both high schools. Students will learn and explore the t-shirt printing process and will assist the Practicum class with the design and print shop working with client projects.

Commercial Photography II Course #: 07224560

Recommended Grade Placement: 10-11 2 Credits

Prerequisite: Commercial Photography I

A course designed to provide job-specific training for entry-level employment in the commercial photography career field. Emphasis is on basics of photography, commercial composition, printmaking & finishing, and advanced skills in Adobe Photoshop and Adobe Lightroom.

Practicum in Commercial Photography Course #: 07224850

Recommended Grade Levels: 11-12 2 Credits

Prerequisites: Commercial Photography I and Commercial Photography II

A course designed to provide job-specific commercial photography work study and/or internships, that affords students supervised practical application of previously acquired skills. Commercial Photography Practicum students will not only demonstrate advanced level photography and editorial skills, but the professionalism of both working with clients, and for clients. Commercial Photography Practicum clients can be in support of CISD, private ventures, public ventures, and the community at large. A student may repeat this course once for credit

provided that the student is experiencing different aspects of the industry and demonstrating proficiency in additional and more advanced knowledge and skills.

Practicum in Graphic Design & Illustration Course #: 07224860

Recommended Grade Levels: 11-12 2 Credits

Prerequisites: Graphic Design & Illustration II

In this course, students develop a technical understanding of the industry with a focus on skill proficiency and client relations. Instruction may be delivered through lab-based classroom and in field internship experiences or career preparation opportunities. The instructor works as the manager with the student on a variety of projects taken from business and industry. The course allows the student to gain experience and understanding of the field in a job-like environment. A student may repeat this course once for credit provided that the student is experiencing different aspects of the industry and demonstrating proficiency in additional and more advanced knowledge and skills.

Arts, Audio Visual Technology, and Communication Career Cluster

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

Statewide Program of Study: Digital Communications

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

Secondary Courses for High School Credit

- Audio/Video Production I
- [redacted]
- Audio/Video Production II
- [redacted]
- AI Video Editing (2026-27)
- Practicum in Audio/Video Production



Example Postsecondary Opportunities

Apprenticeships
- Light Technician

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

Bachelor's Degrees
- Cinematography and Film/Video Production
- Recording Arts Technology

Master's, Doctoral, and Professional Degrees
- Animation, Interactive Technology, Video Graphics, and Special Effects
- Communications Technology

Additional Stackable IBCs/License
- CompTIA Digital Media and Entertainment Professional Certification (DMEP)

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Shadow a sound designer to learn how sound and foley are created for movies or podcasts • Intern with a technical director at a sports team, recording studio, or radio station • Shadow a technician on a live news broadcast, concert, or other event
Expanded Learning Opportunities	• Participate in SkillsUSA or TSA • Participate in Student Television Network • Capture and edit film and audio for a podcast with a local community organization

Aligned Industry-Based Certifications

- Adobe Certified Professional in Digital Video Using Adobe Premiere Pro
- Adobe Certified Professional in Print and Digital Media Publication Using Adobe InDesign
- Adobe Certified Professional in Visual Design
- Adobe Certified Professional in Visual Design Using Adobe Photoshop
- Audio-Visual Communications - Job Ready
- Broadcasting and Journalism
- Digital Video Production Foundations

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

Example Aligned Occupations

Camera Operators, Television, Video, and Film
Median Wage: $48,422
Annual Openings: 155
10-Year Growth: 20%

Audio and Video Technicians
Median Wage: $46,319
Annual Openings: 626
10-Year Growth: 30%

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

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

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

Digital Communications

Audio/Video Production I Course #: 07224380

Recommended Grade Placement: 9-11 1 Credit

Students will be expected to develop an understanding of the industry with a focus on pre-production, post-production audio and live audio and video technical skills and concepts. Instruction will include operation of different types of cameras, audio techniques and equipment, electronic editing, graphics for TV, lighting and lighting control consoles, script writing, direction, production, and leadership training.

Audio/Video Production II Course #: 07224480

Recommended Grade Placement 11-12 2 Credits

Prerequisite: Audio Video Production I

A course designed to provide an advanced understanding of career opportunities, training requirements and skills needed to pursue a career in Audio and Video Production. Students will continue developing their skills in operating cameras, electronic editing, producing direction and writing for television/film. Working in this industry, students will be expected to have good communication and leadership skills.

Practicum in Audio/Video Production Course #: 07224880

Recommended Grade Placement: 11-12 2 Credits

Prerequisite: Audio Video Production II

This course allows students to develop an increasing understanding of the industry with a focus on applying pre-production, post-production and video products in a professional environment. A student may repeat this course once for credit provided that the student is experiencing different aspects of the industry and demonstrating proficiency in additional and more advanced knowledge and skills.

Digital Design and Media Production Course #: 07224821

Recommended Grade Placement: 11 1 Credits

Prerequisite: None

Digital Design and Media Production will allow students to demonstrate creative thinking, develop innovative strategies, and use communication tools in order to work effectively with others as well as independently. Students will gather information electronically, which will allow for problem solving and making informed decisions regarding media projects. Students will learn digital citizenship by researching current laws and regulations and by practicing integrity and respect. Students will demonstrate a thorough understanding of digital design principles that is transferable to other disciplines. 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.

Business, Marketing, and Finance Career Cluster

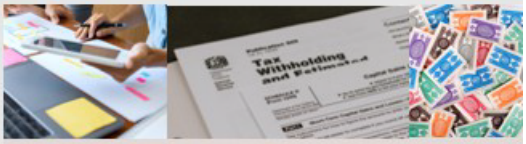
The Business, Marketing, and Finance career cluster focuses on careers in planning, organizing, directing, and evaluating business functions essential to efficient and productive business operations. This career cluster includes occupations ranging from business owner and entrepreneur to accountant,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

Statewide Program of Study: Accounting and Financial Services

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

Secondary Courses for High School Credit

- Business Information Management I
- Accounting I
- Accounting II
- Financial Math
- Practicum in Business Management



Example Postsecondary Opportunities

Associate Degrees
- Accounting
- Bookkeeping

Bachelor's Degrees
- Accounting
- Banking and Financial Support Services

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

Additional Stackable IBCs/License
- Project Management Professional
- Property Tax Consultants Service Contract Providers

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Intern with a certified public accountant (CPA) at a local business • Intern with a city or county auditor's office • Shadow a financial advisor as an intern at an investment company
Expanded Learning Opportunities	• Participate in BPA, DECA, or FBLA • Explore student membership in professional organizations such as AICPA, CIMA, or TXCPA

Aligned Industry-Based Certifications

- Accounting – Basic
- Accounting Foundations
- Certified Insurance Service Representative
- Intuit QuickBooks Certified User
- MB-920: Microsoft Dynamics 365 Fundamentals Finance and Operations Apps
- Microsoft Office Specialist: Microsoft Access Expert (Access 2019)
- Microsoft Office Specialist: Microsoft Excel Expert (Excel 2019)
- Volunteer Income Tax Assistance/Tax Counseling Certification: Advanced
- Volunteer Income Tax Assistance/Tax Counseling Certification: Basic
- Volunteer Income Tax Assistance/Tax Counseling Certification: Volunteer for Elderly

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

Example Aligned Occupations

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

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

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

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

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

Accounting and Financial Services

Business Information Management I (BIM I) Course #: 07222225

Recommended Grade Placement: 9-11 1 Credit

BIM I introduces the basic concepts and skills related to business application. Special emphasis is placed on word processing, spreadsheets, database, presentation, and integrating application software. A windows format is utilized, and Microsoft Office is the current program of choice.

Accounting I Course #: 07222450

Recommended Grade Placement: 10-11 1 Credit

This course introduces general accounting concepts, principles, and procedures; emphasizes the need for financial records; provides the fundamental equation and its application to accounting procedures, including the basic steps of the accounting cycle, special journals and ledgers, work sheets, adjusting and closing entries, special problems in the purchase and sale of merchandise, notes and interest, depreciation, accruals and prepaid items, payroll records, and personal income taxes. Accounting develops the knowledge, skills, and attitudes necessary for individuals to conduct personal business or to further an education in the field of accounting. Students complete practice sets or simulations, use calculators, and process some data electronically.

Accounting II Course #: 07222452

Recommended Grade Placement: 11-12 1 Credit

Prerequisite: Accounting I

This course provides for review and further development of fundamental accounting principles with extensive use of technology; incorporates a complete accounting cycle in relation to formation and dissolution of partnerships. Examines characteristics of corporate organization and ownership, including investments and distribution of earnings; includes adjustments of bad debts, depreciation, depletion of fixed assets, adjusted and accrued income, various methods of inventory control, preparation of business budgets and notes receivable and payable; provides experience in initiating and maintaining an accounting system and in analyzing, interpreting, and synthesizing managerial problems using accounting information as a tool; and develops skill in applying principles used in accounting systems and methods commonly found in business. Accounting II is designed for students interested in studying accounting at the postsecondary level or entering the workforce.

Financial Mathematics Course #: 07222460

Recommended Grade Placement: 10 1 Credit

Approved for math credit from State Board of Education | Prerequisite: Algebra 1

In this course, students will apply mathematics to problems arising in everyday life, society, and the workplace. Students will use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a 3 solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution. Students will select appropriate tools such as real objects, manipulatives, paper and pencil, and technology and techniques such as mental math, estimation, and number sense to solve problems. Students will effectively communicate mathematical ideas, reasoning, and their implications using multiple representations such as symbols, diagrams, graphs, and language. Students will use mathematical

relationships to generate solutions and make connections and predictions. Students will analyze mathematical relationships to connect and communicate mathematical ideas. Students will display, explain, or justify mathematical ideas and arguments using precise mathematical language in written or oral communication.

Practicum in Business Management Course #: 07227970

Recommended Grade Placement: 11-12 2 Credits

Prerequisite: Two credits in the Accounting and Financial Services or Entrepreneurship program of study

The practicum or Coop course is a paid or unpaid capstone experience for students participating in a coherent sequence of career and technical education courses in the Business, Marketing & Finance cluster. Students are required to serve in paid or unpaid internship opportunities. A student may repeat this course once for credit provided that the student is experiencing different aspects of the industry and demonstrating proficiency in additional and more advanced knowledge and skills. A student may repeat this course once for credit provided that the student is experiencing different aspects of the industry and demonstrating proficiency in additional and more advanced knowledge and skills.

Business, Marketing, and Finance Career Cluster

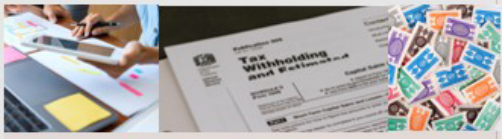
The Business, Marketing, and Finance career cluster focuses on careers in planning, organizing, directing, and evaluating business functions essential to efficient and productive business operations. This career cluster includes occupations ranging from business owner and entrepreneur to accountant,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

Statewide Program of Study: Business Management

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

Secondary Courses for High School Credit

- Business Information Management I
- Business Information Management II
- Business Law
- Business Management
- Practicum in Business Management



Example Postsecondary Opportunities

Associate Degrees
- Business Administration and Management
- Human Resources Management

Bachelor's Degrees
- Business Analytics
- Accounting and Business

Master's, Doctoral, and Professional Degrees
- Business Administration and Management
- Organizational Leadership

Additional Stackable IBCs/License
- Professional Certificate in Team Leadership
- Property Tax Professionals

Aligned Advanced Academic Courses

AP	AP Microeconomics AP Statistics
Dual Credit	Dual credit offerings will vary by local education agency.

Work-Based Learning and Expanded Learning Opportunities

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

Aligned Industry-Based Certifications

- Administrative Assisting
- Certified Associate in Project Management (CAPM)
- Entrepreneurship and Small Business
- General Management
- MB-920: Microsoft Dynamics 365 Fundamentals Finance and Operations Apps
- Microsoft Office Specialist 2016 Master
- Microsoft Office Specialist: Microsoft Access Expert (Access 2019)
- Microsoft Office Specialist: Microsoft Excel Expert (Excel 2019)
- Microsoft Office Specialist: Microsoft Word Expert (Word 2019)
- Project Management Institute (PMI) Project Management Ready
- Business of Retail: Certified Specialist
- Customer Service and Sales: Certified Specialist
- Stukent Social Media Marketing Certification

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

Example Aligned Occupations

First-Line Supervisors of Administrative Support Workers
Median Wage: $59,585
Annual Openings: 13,885
10-Year Growth: 9%

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

General and Operations Managers
Median Wage: $83,220
Annual Openings: 25,450
10-Year Growth: 23%

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

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

Business Management

Crowley Business Academy Degree Program - Tarrant County College

Crowley ISD offers dual credit courses in Business to achieve a certification in Business. These courses are offered through Tarrant County College and tuition is waived. Please refer to the College Credit section of this guide or visit https://www.crowleyisdtx.org/Domain/1009 for more information.

Business Information Management (BIM I) Course #: 07222225

Recommended Grade Placement: 9-11 1 Credit

BIM I introduces the basic concepts and skills related to business application. Special emphasis is placed on word processing, spreadsheets, database, presentation, and integrating application software. A windows format is utilized, and Microsoft Office is the current program of choice.

Business Information Management II Course #: 7222325

Recommended Grade Placement: 11-12 1 Credit

This course is a continuation of BIM I with emphasis on more in-depth features of Word, Excel, and PowerPoint. Students will also be working in Access and Publisher. This course prepares students to take the Microsoft Office Specialist (MOS) certification exam. This is a global certification that is a standard requirement among employers.

Business Law Course #: 07222425

Recommended Grade Placement: 10-11 1 Credit

Prerequisite: Principles of Business, Marketing, and Finance

Business Law is designed to teach students the rules, principles, and language of law. Students will relate law to their current lives as well as explore the implications in their futures. The course includes a focus on criminal vs. civil law, contract law, tort law, and consumer protection law.

Business Management Course #: 07222003

Recommended Grade Placement: 10-11 1 Credit

Recommended Prerequisite: Principles of Business, Marketing, and Finance

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.

Practicum in Business Management Course #: 07227970

Recommended Grade Placement: 11-12 2 Credits

Prerequisite: Two credits in the Accounting and Financial Services or Entrepreneurship program of study

The practicum or Coop course is a paid or unpaid capstone experience for students participating in a coherent sequence of career and technical education courses in the Business, Marketing & Finance cluster. Students are required to serve in paid or unpaid internship opportunities. A student may repeat this course once for credit provided that the student is experiencing different aspects of the industry and demonstrating proficiency in additional and more advanced knowledge and skills. A student may repeat this course once for credit provided that the student is experiencing different aspects of the industry and demonstrating proficiency in additional and more advanced knowledge and skills.

Business, Marketing, and Finance Career Cluster

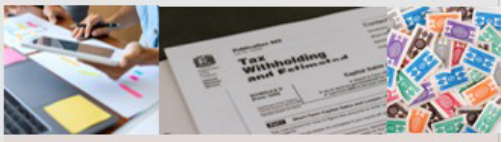
The Business, Marketing, and Finance career cluster focuses on careers in planning, organizing, directing, and evaluating business functions essential to efficient and productive business operations. This career cluster includes occupations ranging from business owner and entrepreneur, to accountant,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

Statewide Program of Study: Entrepreneurship

The Entrepreneurship program of study focuses on occupational and educational opportunities associated with planning, launching, directing, and coordinating public or private sector ventures. This program of study includes formulating policies, launching businesses or organizations, managing daily operations, analyzing management structures, and planning for the use of materials and human resources.

Secondary Courses for High School Credit

- Business Information Management I
- Entrepreneurship I
- Entrepreneurship II
- Statistics and Business Decision Making
- Practicum in Business Management



Example Postsecondary Opportunities

Associate Degrees
- Operations Management and Supervision
- Organizational Leadership

Bachelor's Degrees
- Business Administration and Management
- Public Administration

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

Additional Stackable IBCs/License
- Salesforce
- Service Contract Providers

Aligned Advanced Academic Courses

AP	AP Statistics

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Intern at a local start-up or a business incubator • Participate in the development and launch of a school-based enterprise
Expanded Learning Opportunities	• Job shadow an entrepreneur • Participate in BPA, DECA, FBLA, or related UIL events

Aligned Industry-Based Certifications

- Entrepreneurship and Small Business
- Facebook Digital Marketing Associate Certification
- Stukent Social Media Marketing Certification
- Customer Service and Sales: Certified Specialist
- Business of Retail: Certified Specialist

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

Example Aligned Occupations

General and Operations Managers
Median Wage: $83,220
Annual Openings: 25,450
10-Year Growth: 23%

Management Analysts
Median Wage: $93,983
Annual Openings: 6,030
10-Year Growth: 25%

Chief Executives
Median Wage: $163,567
Annual Openings: 648
10-Year Growth: 3%

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

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

Entrepreneurship

Business Information Management I (BIM I) Course #: 07222225

Recommended Grade Placement: 9-11 1 Credit

BIM I introduces the basic concepts and skills related to business application. Special emphasis is placed on word processing, spreadsheets, database, presentation, and integrating application software. A windows format is utilized, and Microsoft Office is the current program of choice.

Entrepreneurship I Course #: 07227200

Recommended Grade Placement: 10-11 1 Credit

Students will gain the knowledge and skills to become an entrepreneur. 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 and securing the finances to own and operate a business.

Entrepreneurship II Course #: 07227205

Recommended Grade Placement: 11-12 1 Credit

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.

Statistics and Business Decision Making Course #: 07222490

Recommended Grade Placement: 11-12 1 Credit

Prerequisite: Algebra II ****This course satisfies a high school mathematics graduation requirement.**

Statistics and Business Decision Making is an introduction to statistics and the application of statistics to business decision making. Students will use statistics to make business decisions. Students will determine the appropriateness of methods used to collect data to ensure conclusions are valid.

Practicum in Business Management Course #: 07227970

Recommended Grade Placement: 11-12 2 Credits

Prerequisite: Two credits in the Accounting and Financial Services or Entrepreneurship program of study

The practicum or Coop course is a paid or unpaid capstone experience for students participating in a coherent sequence of career and technical education courses in the Business, Marketing & Finance cluster. Students are required to serve in paid or unpaid internship opportunities. A student may repeat this course once for credit provided that the student is experiencing different aspects of the industry and demonstrating proficiency in additional and more advanced knowledge and skills. A student may repeat this course once for credit provided that the student is experiencing different aspects of the industry and demonstrating proficiency in additional and more advanced knowledge and skills.

Education and Training Career Cluster

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

Statewide Program of Study: Early Learning

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

Secondary Courses for High School Credit

- Principles of Education & Training
- Child Development
- Child Guidance
- Practicum in Early Learning



Example Postsecondary Opportunities

Apprenticeships
- Child Care Development Specialist

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

Bachelor's Degrees
- Elementary Education and Teaching
- Early Childhood and Family Studies

Master's, Doctoral, and Professional Degrees
- Educational Leadership and Administration, General
- Education, General

Additional Stackable IBCs/License
- Certified Child Care Professional

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Serve as a summer camp counselor for pre-school or kindergarten students • Serve as a teaching assistant at a lab school or daycare
Expanded Learning Opportunities	• Participate in FCCLA • Participate in TAFE

Aligned Industry-Based Certifications

- Child Development Associate (CDA)
- Early Childhood Education and Care - Advanced
- Early Childhood Education and Care - Basic
- Educational Aide I
- Pre-Professional Certification in Early Childhood Education

Example Aligned Occupations

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

Preschool Teachers, Except Special Education
Median Wage: $24,127
Annual Openings: 4,148
10-Year Growth: 26%

Elementary School Teachers, Except Special Education
Median Wage: $61,389
Annual Openings: 11,712
10-Year Growth: 13%

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

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

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

Early Learning

Principles of Education & Training Course #: 07095010

Recommended Grade Placement: 9 1 Credit

This course is designed to introduce students to the various careers available in education.

Child Development Course #: 07225210

Recommended Grade Placement: 10 1 Credit

This course addresses knowledge and skills related to child growth and development from prenatal through school-age children, equipping students with child development skills. Students use these skills to promote the well-being and healthy development of children and investigate careers related to the care and education of children. Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.

Child Development Associates Foundations Course #: 07225215

Recommended Grade Placement: 11-12 1 Credit

The Child Development Associate Foundations course is a laboratory course addressing the knowledge and skills related to applying Child Development Associate Competency Standards in early childhood environments and understanding how these competencies help young children move with success from one developmental stage to the next.

Child Guidance Course #: 07223320

Recommended Grade Placement: 11-12 2 Credits

Child Guidance is a two-credit course where students will apply their knowledge of Child Development principles to a hands-on experience at a child development center while improving their employability skills. They will practice developing and implementing activities for preschool age children at a childcare facility and earn their Child Development Associate credential.

Practicum in Early Learning Course #:07125920

Recommended Grade Placement: 12 2 Credits

Practicum in Early Learning is a field-based internship that provides students with background knowledge of early childhood 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 facilitator and an exemplary industry professional. 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 early learning teachers, trainers, paraprofessionals, or other educational personnel.

Education and Training Career Cluster

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

Statewide Program of Study: Teaching and Training

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

Secondary Courses for High School Credit

- Principles of Education & Training
- Human Growth and Development
- Communication & Technology in Education
- Instructional Practices
- Practicum in Education & Training

Aligned Advanced Academic Courses

Dual Credit	EDUC 1301, EDUC 2330, EDUC 2301 (Tarleton)



Example Postsecondary Opportunities

Apprenticeships
- Teacher Apprentice

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

Bachelor's Degrees
- Elementary Education and Teaching
- Secondary Education and Teaching

Master's, Doctoral, and Professional Degrees
- Educational Leadership and Administration, General
- Curriculum and Instruction

Additional Stackable IBCs/License
- Generalist, Grades EC-4

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Serve as a camp counselor to learn mentoring, facilitation, and lesson planning skills • Volunteer in a tutoring center to learn lesson planning and skills assessment
Expanded Learning Opportunities	• Participate in FCCLA • Participate in TAFE

Aligned Industry-Based Certifications

- Educational Aide I

Example Aligned Occupations

Teaching Assistants, Except Postsecondary
Median Wage: $28,066
Annual Openings: 10,000
10-Year Growth: 15%

Secondary School Teachers, Except Special Education and CTE
Median Wage: $61,035
Annual Openings: 8,288
10-Year Growth: 14%

Education Administrators, Kindergarten through Secondary
Median Wage: $81,976
Annual Openings: 2,676
10-Year Growth: 14%

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

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

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

Teaching and Training

This is a Dual Credit Program of Study through Tarleton State University – please see prior page for college credit options.

Principles of Education & Training Course #: 07095010

Recommended Grade Placement: 9 1 Credit

This course is designed to introduce students to the various careers available in education. From this course, students will select to go into Early Learning and earn a Child Development Associate credential or go into Teaching & Training and earn dual credit hours at Tarleton State University.

Human Growth & Development (Dual Credit PSYC 2308) Course #: 07105110

Recommended Grade Placement: 10 1 Credit

Human Growth and Development is an examination of human development across the lifespan with emphasis upon research, theoretical perspectives, and common physical, cognitive, emotional, and social developmental milestones. This course is matched to dual credit PSYC 2308 Child Development.

Instructional Practices (EDUC 1301) Course #: 07225510

Recommended Grade Placement: 11-12 2 Credits

Instructional Practices in Education and Training is a field-based 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 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. Students will intern in a local CISD elementary, intermediate, or middle school. This course is matched to dual credit EDUC 1301.

Practicum In Education & Training (EDUC 2330 and 2301) Course #:07225910

Recommended Grade Placement: 12 2 Credits

Prerequisite: Instructional Practice in Education & Training

Practicum in Education and Training is a field-based internship that provides students with 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 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. Students will intern in a local CISD elementary, intermediate, or middle school. A student may repeat this course once for credit provided that the student is experiencing different aspects of the industry and

demonstrating proficiency in additional and more advanced knowledge and skills. This course is matched to dual credit EDUC 2330 and 2301.

Health Science Career Cluster

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

Statewide Program of Study: Diagnostic and Therapeutic Services – Medical Assistant

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

Secondary Courses for High School Credit

- Health Science Theory
- Medical Terminology
- Anatomy and Physiology
- Medical Assistant
- Practicum in Health Science

Aligned Advanced Academic Courses

AP	AP Biology	AP Chemistry



Example Postsecondary Opportunities

Apprenticeships
- Medical Assistant

Associate Degrees
- Emergency Medical Technology
- Radiologic Technology/Science

Bachelor's Degrees
- Emergency Medical Technology
- Medical Insurance Coding

Master's, Doctoral, and Professional Degrees
- Medicine
- Occupational Therapy

Additional Stackable IBCs/License
- Registered Diagnostic Medical Sonographer

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Intern with a medical assistant at a community clinic, hospital, assisted living, or long-term care facility • Participate in job shadowing experiences such as Emergency Medical Services (EMS) ride along or hospital/clinical job
Expanded Learning Opportunities	• Participate in Health Occupation Students of America (HOSA) or SkillsUSA • Participate in Advanced Medical Ambulance Bus (AMBUS) event or Community Emergency Response Team (CERT) event

Aligned Industry-Based Certifications

- Certified Cardiographic Technician
- Certified Clinical Medical Assistant
- Certified Dental Assistant
- Certified EKG Technician
- Certified Nurse Aide (CNA)
- Certified Occupational Therapy Assistant
- ECG Technician
- Emergency Medical Technician–Basic
- Limited Medical Radiologic Technologist
- Medical Assistant
- Medical Laboratory Assistant
- Medical Laboratory Technician
- Nationally Registered Certified EKG Technician
- Patient Care Technician
- Pharmacy Technician
- Phlebotomy Technician
- Registered Dental Assistant X-Ray Certification
- Emergency Medical Responder
- Certified Respiratory Therapist

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

Example Aligned Occupations

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

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

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

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

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

Diagnostic and Therapeutic Services

Health Science Theory Course #: 07226100

Recommended Grade Placement: 9-10 1 Credit

Prerequisite: Biology (Must be paired with Medical Terminology I)

A course designed to develop healthcare-specific knowledge and skills in professionalism, effective communications, ethical and legal responsibilities, client care, safety, first aid, and CPR. This class will introduce various healthcare jobs including phlebotomy technician, EKG technician, medical assistant, patient care technician and pharmacy technician. This course prepares the student for the transition to clinical or work-based learning experiences in healthcare with various hands-on skills and activities. This class is a prerequisite to take practicum in health science, where certifications including Certified Patient Care Technician, Certified Pharmacy Technician, and Certified Medical Assistant are earned. Students are encouraged to participate in Health Occupations Students of American (HOSA).

Medical Terminology Course #: 07226001

Recommended Grade Placement: 9-11 1 Credit

Must be paired with Health Science Theory

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. Students are encouraged to participate in Health Occupations Students of American (HOSA).

Anatomy & Physiology Course #: 03120900

Recommended Grade Placement: 10-12 1 Credit

Counts as a Science credit | Prerequisite: Biology and a second science credit

This course will take an integrated approach to functional anatomy with emphasis on basic principles and physiological activities of different systems (skeletal, muscular, digestive, respiratory, cardiovascular, urinary, endocrine, reproductive) in mammals. Laboratory experiences will include extensive study and dissection of a mammal. The text, content, and labs are college-level and are designed for students planning to major in science in college. The goal of this course is to better prepare students for undergraduate work in life science majors such as pre-medical, pre-dental, pre-pharmacist, nursing, athletic trainers, and other healthcare professionals that require anatomy and physiology in college. Students are encouraged to participate in Health Occupations Students of American (HOSA).

Medical Assistant Course #: 07226700

Recommended Grade Placement: 11-12 1 Credit

This course provides students with the knowledge and skills to pursue a career as a medical assistant and to improve college and career readiness. Students will learn communication skills, clinical ethics knowledge, safety awareness, and information related to medical assisting career opportunities.

Pathophysiology Course #: 07226400

Recommended Grade Placement: 11-12 1 Credit

Prerequisite: Biology and Chemistry

Approved by the State Board of Education for 4th science credit.

In this course, students conduct laboratory investigations and fieldwork, use scientific methods during investigations, and make informed decisions using critical thinking and problem solving. Students study disease processes and how humans are affected. Emphasis is placed on prevention and treatment of diseases. Students will differentiate between normal and abnormal physiology. Students are encouraged to participate in Health Occupations Students of American (HOSA).

Practicum In Health Science Course #: 07226500

Recommended Grade Placement: 11-12 2 Credits

Prerequisite: Health Science Theory and Biology

The practicum course is a paid or unpaid capstone experience for students participating in the Health Science Program of Study. Students sit to pass national exams and become a Certified Patient Care Technician, Certified Pharmacy Technician, and Certified Medical Assistant. This is an internship program for specific health professions. Students participate in a clinical internship at local healthcare facilities. Students are encouraged to participate in Health Occupations Students of American (HOSA). Students should be prepared to submit to an FBI criminal background check, random drug screening, TB testing, state fingerprint licensure, state or government-issued ID, and to present a proof of current immunizations and valid Social Security Card. Other stipulations may also be in place depending on internship requirements including but not limited to student dress and appearance. A student may repeat this course once for credit provided that the student is experiencing different aspects of the industry and demonstrating proficiency in additional and more advanced knowledge and skills.

Health Science Career Cluster

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

Statewide Program of Study: Diagnostic and Therapeutic Services – Pharmacy Technician

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

Secondary Courses for High School Credit

- Introduction to Pharmacy Science
- Pharmacy I
- Pharmacy II
- Mathematics for Medical Professionals
- Practicum in Health Science



Example Postsecondary Opportunities

Apprenticeships
- Medical Assistant

Associate Degrees
- Emergency Medical Technology
- Radiologic Technology/Science

Bachelor's Degrees
- Emergency Medical Technology
- Medical Insurance Coding

Master's, Doctoral, and Professional Degrees
- Medicine
- Occupational Therapy

Additional Stackable IBCs/License
- Registered Diagnostic Medical Sonographer

Aligned Advanced Academic Courses

AP	AP Biology	AP Chemistry
Dual Credit (Lamar State at Port Arthur)	PHRA 1301, PHRS 1349	PHRA 1243, PHRA 1345

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Intern with a medical assistant at a community clinic, hospital, assisted living, or long-term care facility • Participate in job shadowing experiences such as Emergency Medical Services (EMS) ride along or hospital/clinical job
Expanded Learning Opportunities	• Participate in Health Occupation Students of America (HOSA) or SkillsUSA • Participate in Advanced Medical Ambulance Bus (AMBUS) event or Community Emergency Response Team (CERT) event

Aligned Industry-Based Certifications

- Certified Cardiographic Technician
- Certified Clinical Medical Assistant
- Certified Dental Assistant
- Certified EKG Technician
- Certified Nurse Aide (CNA)
- Certified Occupational Therapy Assistant
- ECG Technician
- Emergency Medical Technician–Basic
- Limited Medical Radiologic Technologist
- Medical Assistant
- Medical Laboratory Assistant
- Medical Laboratory Technician
- Nationally Registered Certified EKG Technician
- Patient Care Technician
- Pharmacy Technician
- Phlebotomy Technician
- Registered Dental Assistant X-Ray Certification
- Emergency Medical Responder
- Certified Respiratory Therapist

TEA Texas Education Agency

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

Example Aligned Occupations

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

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

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

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

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

Diagnostic and Therapeutic Services

Introduction to Pharmacy Science (PHRA 1301 and PHRA 1305) Course #: 07226451

Recommended Grade Placement: 9 1 Credit

The Introduction to Pharmacy Science 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 page 126 | return to table of contents they pertain to pharmacy sciences. It is the first course in a pathway leading to certification as a pharmacy technician.

Pharmacy I (PHRA 1349 and PHRA 1313) Course #: 07226455

Recommended Grade Placement: 10-11 1 Credit

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.

Pharmacy II (PHRA 1243 and PHRA 1260) Course #: 07226465

Recommended Grade Placement: 11 2 Credits

The Pharmacy II course provides students with the advanced knowledge and skills to explore various careers in the pharmacy field, including pharmacology, pharmacy law, medication errors, inventory pharmacy calculations, compounding, and workflow expectations in a pharmacy setting.

Mathematics for Medical Professionals (PHRA 1247) Course #: 07226470

Recommended Grade Placement: 11-12 1 Credit

Prerequisites: Geometry and Algebra II

The Mathematics for Medical Professionals course is designed to embed 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. Course content consists primarily of high school level mathematics concepts and their applications to health science professions.

Practicum In Health Science Course #: 07226500

Recommended Grade Placement: 11-12 2 Credits

Prerequisite: Health Science Theory and Biology

The practicum course is a paid or unpaid capstone experience for students participating in the Health Science Program of Study. Students sit to pass national exams and become a Certified Patient Care Technician, Certified Pharmacy Technician, and Certified Medical Assistant. This is an internship program for specific health professions. Students participate in a clinical internship at local healthcare facilities. Students are encouraged to participate in Health Occupations Students of American (HOSA). Students should be prepared to submit to an FBI criminal background check, random drug screening, TB testing, state fingerprint licensure, state or government-issued ID, and to present a proof of current immunizations and valid Social Security Card. Other stipulations may also be in place depending on internship requirements including but not limited to student dress and appearance. A student may repeat this course once for credit provided that the student is experiencing different aspects of the industry and demonstrating proficiency in additional and more advanced knowledge and skills.

Health Science Career Cluster

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

Statewide Program of Study: Biomedical Science

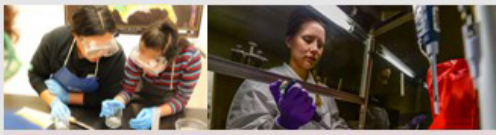
The Biomedical Science program of study focuses on occupational and educational opportunities associated with the study of biology and medicine. This program of study includes researching and diagnosing diseases, pre-existing conditions, and other determinants of health. Students will also practice patient care and communication.

Secondary Courses for High School Credit

- Principles of Biomedical Science
- Human Body Systems
- Medical Interventions
- Biomedical Innovation
-

Aligned Advanced Academic Courses

AP	AP Biology	AP Chemistry



Example Postsecondary Opportunities

Apprenticeships
- Medical Laboratory Technician

Associate Degrees
- Biotechnology
- Biological Sciences

Bachelor's Degrees
- Biology
- Cellular and Molecular Biology

Master's, Doctoral, and Professional Degrees
- Forensic Science and Technology
- Biomedical Sciences

Additional Stackable IBCs/License
- Cytotechnologist

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Intern with a biological or medical scientist at a healthcare organization or health research company to learn scientific testing methods • Shadow a clinical laboratory technician to observe laboratory testing processes
Expanded Learning Opportunities	• Participate in Health Occupations Students of America (HOSA)

Aligned Industry-Based Certifications

- Biotechnician Assistant Credentialing Exam (BACE)
- Medical Laboratory Assistant
- Medical Laboratory Technician

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

Example Aligned Occupations

Medical Equipment Preparers
Median Wage: $38,827
Annual Openings: 519
10-Year Growth: 18%

Forensic Science Technicians
Median Wage: $56,971
Annual Openings: 249
10-Year Growth: 22%

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

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

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

Biomedical Science

Principles of Biomedical Science Course #: 07226004

Recommended Grade Placement: 9 1 Credit

Students explore concepts of Biology and Medicine to determine factors that led to the death of a fictional person. During the investigation, the students will examine autopsy reports, investigate medical history, and explore medical treatments that might have prolonged the person's life. Students would be introduced to human physiology, basic biology, medicine, and research processes which will allow them to design their own experiments to solve problems. This course does not count as a science credit.

Human Body Systems Course #: 07226300

Recommended Grade Placement: 10-11 1 Credit

Students examine the interactions of human body systems as they explore identity, power, movement, protection and homeostasis. Exploring science in action, students build organs and tissues on a skeletal Manikin; use data acquisition software to monitor body functions such as muscle movement, reflex and voluntary action, and respiration; and take on the roles of biomedical professionals to solve real-world medical cases. This course does not count as a science credit.

Medical Interventions Course #: 07226320

Recommended Grade Placement: 11-12 1 Credit

Students follow the life of a fictitious family as they investigate how to prevent, diagnose, and treat disease. Students explore how to detect and fight infection; screen and evaluate the code in human DNA; evaluate cancer treatment options; and prevail when the organs of the body begin to fail. Through real-world cases, students are exposed to a range of interventions related to immunology, surgery, genetics, pharmacology, medical devices and diagnostics. This course does not count as a science credit.

Biomedical Innovation Course #: 07226310

Recommended Grade Placement: 12 1 Credit

Students build on the knowledge and skills gained from the previous courses to design innovative solutions for the most pressing health challenges of the 21st century. Students apply their knowledge and skills to answer questions or solve problems in the biomedical sciences. This course does not count as a science credit.

Practicum In Health Science Course #: 07226500

Recommended Grade Placement: 11-12 2 Credits

Prerequisite: Health Science Theory and Biology

The practicum course is a paid or unpaid capstone experience for students participating in the Health Science Program of Study. Students sit to pass national exams and become a Certified Patient Care Technician, Certified Pharmacy Technician, and Certified Medical Assistant. This is an internship program for specific health professions. Students participate in a clinical internship at local healthcare facilities. Students are encouraged to participate in Health Occupations Students of American (HOSA). Students should be prepared to submit to an FBI criminal background check, random drug screening, TB testing, state fingerprint licensure, state or government-issued ID, and to present a proof of current immunizations and valid Social Security Card. Other stipulations may also be in place depending on internship requirements including but not limited to student dress and appearance. A student may repeat this course once for credit provided that the student is experiencing different aspects of the industry and demonstrating proficiency in additional and more advanced knowledge and skills.

Hospitality and Tourism Career Cluster

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

Statewide Program of Study: Culinary Arts

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

Secondary Courses for High School Credit

- Introduction to Culinary Arts
- Culinary Arts
- Advanced Culinary Arts
- Practicum in Culinary Arts



Example Postsecondary Opportunities

Associate Degrees
- Culinary Arts
- Baking and Pastry Arts

Bachelor's Degrees
- Hotel/Motel Administration/Management
- Culinary Science

Master's, Doctoral, and Professional Degrees
- Organizational Leadership
- Foodservice Systems Administration/Management

Additional Stackable IBCs/License
- Food Manager License

Aligned Advanced Academic Courses

AP	AP Chemistry
Dual Credit (Lamar State in Port Arthur)	CHEF 1305, CHEF 1301, HAMG 1321, RSTO 1313, PSTR 1301, CHEF 1310, CHEF 1264

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Shadow a director of a non-profit that produces and delivers food for communities in need • Intern at a catering company and learn about food production for large-scale events • Work part-time in a restaurant as a line cook or chef
Expanded Learning Opportunities	• Participate in FCCLA • Participate in SkillsUSA • Participate in American Culinary Association or the Texas Restaurant Association

Aligned Industry-Based Certifications

- Certified Fundamentals Cook
- Certified Fundamentals Pastry Cook
- Certified Hospitality and Tourism Management Professional
- Commercial Foods
- Culinary Meat Selection and Cookery Certification
- Food Protection Manager Certification
- Food Safety and Science Certification
- ManageFirst Professional
- Pre-Professional Certification in Culinary Arts
- Pre-Professional Certification in Food Science Fundamentals
- ServSafe Manager

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

Example Aligned Occupations

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

Chefs and Head Cooks
Median Wage: $44,761
Annual Openings: 950
10-Year Growth: 37%

General and Operations Managers
Median Wage: $83,220
Annual Openings: 25,450
10-Year Growth: 23%

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

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

Culinary Arts

Introduction to Culinary Arts (CHEF 1305 and CHEF 1301) Course #: 07225275

Recommended Grade Placement: 9-10 1 Credit

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 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 will be offered with a commercial kitchen used as a laboratory. Students are encouraged to participate in extended learning experiences which may include career and technical student organizations, and other leadership or extracurricular organizations.

Culinary Arts (HAMG 1321 and RSTO 1313) Course #: 07225280

Recommended Grade Placement: 10-11 2 Credits

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 will be offered with a commercial kitchen used as a laboratory. Students are encouraged to participate in extended learning experiences which may include practicum hours, career and technical student organizations, and other leadership or extracurricular organizations.

Advanced Culinary Arts (PSTR 1301 and CHEF 1310) Course #: 07225895

Recommended Grade Placement: 11-12 2 Credits

Prerequisite: Culinary Arts

This course is a unique advanced course that provides occupationally specific opportunities for students to participate in a learning experience that combines classroom instruction with actual business and industry career experiences. Advanced Culinary Arts integrates academic and career and technical education; provides more interdisciplinary instruction; and supports strong partnerships among schools, businesses, and community institutions with the goal of preparing students with a variety of skills in a fast-changing workplace. Students are taught employability skills, which include job-specific skills applicable to their training plan, job interview techniques, communication skills, financial and budget activities, human relations, and portfolio development.

Practicum in Culinary Arts (CHEF 2331 and CHEF 1264) Course #: 07225880

Recommended Grade Placement: 12 2 Credits

Prerequisite: Advanced Culinary Arts

This course 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 will extend content and enhance skills introduced in Culinary Arts by in-depth instruction of industry-driven standards in order to prepare students for success in higher education, certification, and/or immediate employment. Students receive hands-on practical experience in all aspects of food preparation and production. Coursework begins with food preparation techniques and progresses. Students

are encouraged to participate in extended learning experiences which may include practicum hours, career and technical student organizations, and other leadership or extracurricular organizations. A student may repeat this course once for credit provided that the student is experiencing different aspects of the industry and demonstrating proficiency in additional and more advanced knowledge and skills.

Human Services Career Cluster

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

Statewide Program of Study: Family and Community Services

The Family and Community Services program of study focuses on occupational and educational opportunities associated with social services, including child and human development and consumer sciences. This program of study includes managing social and community services, managing family and consumer sciences, and understanding career paths in social work or therapy for children, families, or school communities.

Secondary Courses for High School Credit

- [redacted]
- Principles of Community Services
- Human Growth and Development
- Social and Community Services
- Family & Community Services
- Counseling and Mental Health
- Practicum of Human Services



Example Postsecondary Opportunities

Apprenticeships
- Community Health Worker Apprentice

Associate Degrees
- Social Work
- Human Development and Family Studies

Bachelor's Degrees
- Social Work
- Human Development and Family Studies

Master's, Doctoral, and Professional Degrees
- Mental Health Counseling
- Marriage and Family Therapy

Additional Stackable IBCs/License
- Certified Diabetes Educator

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Participate in a community health worker apprenticeship at a community health center • Shadow a social worker in a community non-profit organization to learn about providing social and community services
Expanded Learning Opportunities	• Participate in FCCLA

Aligned Industry-Based Certifications

- Child Development Associate (CDA)
- Community Health Worker

Example Aligned Occupations

Community Health Workers
Median Wage: $39,520
Annual Openings: 501
10-Year Growth: 25%

Social and Human Service Assistants
Median Wage: $38,442
Annual Openings: 3,298
10-Year Growth: 21%

Child, Family, and School Social Workers
Median Wage: $49,398
Annual Openings: 2,342
10-Year Growth: 14%

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

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

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

Family and Community Services

Principles of Community Services Course #: 07223340

Recommended Grade Placement: 9 1 Credit

The purpose of this course is to introduce high school students to the field of nonprofits/community service, as well as explore career options that assist individuals and families in need. The students will work to understand policies, design community service plans, and develop a portfolio of different community and state resources. Students will also be encouraged to job shadow, volunteer for community service-based experiences, and participate in service-learning opportunities.

Social and Community Services Course #: 07223345

Recommended Grade Placement: 10 1 Credit

Social and Community Services will provide an overview of the nonprofit, social, community service, and faith-based organization sector in the United States. The course has an emphasis on professional practices and development of the skills needed to implement service programs. The Social and Community Services course builds on knowledge from Principles of Community Services by providing an in-depth study of social services and how they relate to all other family and community services. Topics covered include the roles of community service providers in meeting human service needs, the sociological factors on clients receiving services, and the exploration of careers.

Counseling and Mental Health Course #: 07226200

Recommended Grade Placement: 11 1 Credit

This course offers knowledge and skills necessary to pursue a counseling and mental health career through simulated environments. Students are expected to apply knowledge of ethical and legal responsibilities, limitations, and the implications of their actions. Professional integrity in counseling and mental health care is dependent on acceptance of ethical and legal responsibilities.

Family & Community Services Course #: 07223330

Recommended Grade Placement: 12 1 Credit

This laboratory-based course is designed to involve students in realistic and meaningful community-based activities through direct service experiences. Students are provided opportunities to interact and provide services to individuals, families, and the community through community or volunteer services. Emphasis is placed on developing and enhancing organizational and leadership skills and characteristics. This course is a perfect opportunity to gather experience in volunteer and service projects for college and career applications. Students will be placed in an internship on campus during this course.

Practicum In Human Services Course #: 07223920

Recommended Grade Placement: 11-12 2 Credits

Prerequisite: Two courses in the Family and Community Service program of study

Practicum in Human Services provides occupationally specific training and focuses on the development of consumer services, early childhood development and services, counseling and mental health services, and family and community services careers. Students are required to serve in paid or unpaid internship opportunities. Students must provide transportation to internship opportunities. A student may repeat this course once for credit provided that the student is experiencing different aspects of the industry and demonstrating proficiency in additional and more advanced knowledge and skills.

Human Services Career Cluster

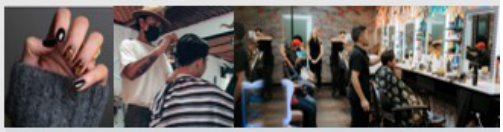
The Human Services career cluster focuses on preparing individuals for employment in career pathways that relate to families and human needs, such as counseling and mental health services, family and community services, personal care services, and consumer services. This career cluster includes occupations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

Regional Program of Study: Cosmetology and Personal Care Services

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

Secondary Courses for High School Credit

- Microbiology and Safety for Cosmetology Careers
- Principles of Cosmetology and Design and Color Theory
- Cosmetology I
- Cosmetology II



Example Postsecondary Opportunities

Apprenticeships
- Apprentice Stylist

Associate Degrees
- Cosmetology Operator
- Esthetics and Skin Care

Additional Stackable IBCs/License
- Class A Barber
- Eyelash Extension Specialist
- Hair Weaving Specialist

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Work part-time in a salon, spa, or barbershop • Participate in an apprenticeship at a salon to become an apprentice stylist
Expanded Learning Opportunities	• Tour a salon, spa, or barbershop • Participate in SkillsUSA

Aligned Industry-Based Certifications

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

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

Example Aligned Occupations

Hairdressers, Hairstylists, and Cosmetologists
Median Wage: $27,286
Annual Openings: 8,014
10-Year Growth: 25%

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

First-Line Supervisors of Personal Service Workers
Median Wage: $36,795
Annual Openings: 2,253
10-Year Growth: 29%

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

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

Cosmetology and Personal Care Services

Microbiology & Safety for Cosmetology Careers Course #: 07223105

Required Grade Placement: 9 1 Credit

Students will receive instruction in the microbial world, studying topics such as pathogenic and nonpathogenic microorganisms, drug resistant organisms, and emerging diseases. Students may become certified in the Occupational Safety and Health Administration (OSHA) safety training course. This course includes an in-depth analytical opportunity for students to problem solve health and safety in cosmetology.

Principles of Cosmetology Design & Color Theory Course #: 07223205

Required Grade Placement: 10 1 Credit

In Principles of Cosmetology Design and Color Theory, students coordinate integration of academic, career, and technical knowledge and skills in this laboratory instructional sequence course designed to provide job-specific training for employment in cosmetology careers. Instruction includes sterilization and sanitation procedures, hair care, nail care, and skin care and meets the TDLR requirements for licensure upon passing the state examination. Analysis of career opportunities, license requirements, knowledge and skills expectations, and development of workplace skills are included.

Cosmetology I Course #: 07223200

Required Grade Placement: 11 2 Credits

Students coordinate the integration of academic, career, technical knowledge and provide salon services. This instructional sequenced course is designed to provide job-specific training for employment in cosmetology careers. Instruction includes sterilization and sanitation procedures, hair care, nail care, and skin care. This program meets the Texas Department of Licensing and Regulation requirements for licensure upon successful completion of the course sequence and passing the state examinations at the end of Cosmetology II. Analysis of career opportunities, requirements, expectations, and development of workplace skills are included.

Cosmetology II Course #: 07223300

Required Grade Placement: 12 3 Credits

Prerequisite: Cosmetology I

Students review academic and practical knowledge related to cosmetology. This course is designed to provide advanced skill set training as well as employment preparation for a cosmetology career. Instruction includes advanced training in sterilization and sanitation processes, hair care, nail care, and skin care. This program meets the Texas Department of Licensing and Regulation requirements for licensure upon successful completion of the course sequence and passing the state examinations. Students apply, combine, and justify knowledge and skills to a variety of settings and problems. Because of scheduling constraints for students, those interested in completing this program are encouraged to earn at least one required graduation credits outside of the regular school day/year.

In order to complete the licensure exam for Cosmetology, students are required to take all four courses in the Cosmetology program of study.

Human Services Career Cluster

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

Regional Program of Study: Barbering

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

Secondary Courses for High School Credit

- Microbiology and Safety for Cosmetology Careers
- Principles of Cosmetology and Design and Color Theory
- Barbering I
- Barbering II



Example Postsecondary Opportunities

Apprenticeships
- Apprentice Stylist

Associate Degrees
- Cosmetology Operator
- Esthetics and Skin Care

Additional Stackable IBCs/License
- Class A Barber
- Eyelash Extension Specialist
- Hair Weaving Specialist

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Work part-time in a salon, spa, or barbershop • Participate in an apprenticeship at a salon to become an apprentice stylist
Expanded Learning Opportunities	• Tour a salon, spa, or barbershop • Participate in SkillsUSA

Aligned Industry-Based Certifications

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

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

Example Aligned Occupations

Hairdressers, Hairstylists, and Cosmetologists
Median Wage: $27,286
Annual Openings: 8,014
10-Year Growth: 25%

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

First-Line Supervisors of Personal Service Workers
Median Wage: $36,795
Annual Openings: 2,253
10-Year Growth: 29%

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

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

Cosmetology and Personal Care Services

Microbiology & Safety for Cosmetology Careers Course #: 07223105
Required Grade Placement: 9 1 Credit

Students will receive instruction in the microbial world, studying topics such as pathogenic and nonpathogenic microorganisms, drug resistant organisms, and emerging diseases. Students may become certified in the Occupational Safety and Health Administration (OSHA) safety training course. This course includes an in-depth analytical opportunity for students to problem solve health and safety in cosmetology.

Principles of Cosmetology Design & Color Theory Course #: 07223205
Required Grade Placement: 10 1 Credit

In Principles of Cosmetology Design and Color Theory, students coordinate integration of academic, career, and technical knowledge and skills in this laboratory instructional sequence course designed to provide job-specific training for employment in cosmetology careers. Instruction includes sterilization and sanitation procedures, hair care, nail care, and skin care and meets the TDLR requirements for licensure upon passing the state examination. Analysis of career opportunities, license requirements, knowledge and skills expectations, and development of workplace skills are included.

Barbering I Course #: 07110100
Required Grade Placement: 11 3 Credits

In Barbering I, students coordinate integration of academic, career, and technical knowledge and skills in a laboratory instructional sequence of courses designed to provide job-specific training for employment in barbering 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.

Barbering II Course #: 07120100
Required Grade Placement: 12 3 Credits

In Barbering II, 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. Analysis of career opportunities, license requirements, knowledge and skills expectations, and development of workplace skills are included.

In order to complete the licensure exam for Barbering, students are required to take all four courses in the Barbering program of study.

Information Technology Career Cluster

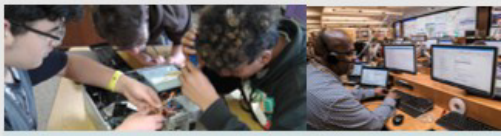
The Information Technology (IT) career cluster focuses on the design, development, support, and management of hardware, software, multimedia, and systems integration services. This career cluster includes occupations ranging from Software Developer and Programmer to Cybersecurity Specialists and Network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

Statewide Program of Study: Information Technology Support and Services

The Information Technology Support and Services program of study focuses on occupational and educational opportunities associated with administering, testing, and implementing computer databases and applying knowledge of database management systems. This program of study includes analyzing user requirements, automating or improving existing systems, and reviewing computer system capabilities. It also includes research, design, and testing of computer or computer-related equipment for commercial, industrial, military, or scientific use.

Secondary Courses for High School Credit

- Principles of Information Technology
- Computer Maintenance
- Computer Technician Practicum
- Practicum in Information Technology



Aligned Advanced Academic Courses

AP	AP Computer Science A AP Computer Science Principles

Example Postsecondary Opportunities

Apprenticeships
- Coding Apprenticeship

Associate Degrees
- Computer Science
- Network and System Administration

Bachelor's Degrees
- Computer and Information Systems Security/Auditing/Information Assurance
- Computer Engineering

Master's, Doctoral, and Professional Degrees
- Information Science/Studies
- Electrical and Electronics Engineering

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Intern at a local IT company to develop skills in computer system maintenance and setting up computer equipment • Shadow a database administrator or computer software or hardware engineer to learn about their day-to-day responsibilities
Expanded Learning Opportunities	• Participate in SkillsUSA or TSA • Subscribe to industry journals

Aligned Industry-Based Certifications

- ArcGIS Desktop Associate 19-001
- Business Information Processing
- Cloud Essentials+
- CompTIA A+ Certification
- CompTIA IT Fundamentals+
- Computer Repair Technology - Job Ready
- Google IT Support Professional Certificate
- Microsoft 365 Fundamentals
- Microsoft Security, Compliance, and Identity Fundamentals
- CompTIA Network+
- CompTIA Server+

Successful completion of the Information Technology Support and Services program of study will fulfill requirements of the Business and Industry endorsement.

Example Aligned Occupations

Computer User Support Specialists
Median Wage: $51,411
Annual Openings: 5,757
10-Year Growth: 21%

Computer Network Support Specialists
Median Wage: $65,646
Annual Openings: 1,634
10-Year Growth: 19%

Computer Hardware Engineers
Median Wage: $119,662
Annual Openings: 377
10-Year Growth: 14%

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

For more information visit:
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Information Technology Support and Services

Principles of Information Technology Course #: 07084500

Recommended Grade Placement: 9 1 Credit

In this course, 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.

Computer Maintenance Course #: 07224520

Recommended Grade Placement: 10 1 Credit

Students acquire principles of computer maintenance, including electrical and electronic theory, computer hardware principles, and broad level components related to the installation, diagnosis, service, and repair of computer systems.

Computer Technician Practicum Course #: 0722472

Recommended Grade Placement: 11 2 Credits

Prerequisite: Computer Maintenance

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. 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, industry mentor, or both.

Practicum Information Technology Course #: 07222240

Recommended Grade Placement: 12 2 Credits

Prerequisite: At least two credits of Information Technology

Research in IT is a project-based research course for students who have the ability to research a real-world, technological problem. Students develop a project on a topic related to information technology career interests, use scientific methods of investigation to conduct in-depth research, are matched with a mentor from the business or professional community, apply information technology concepts, compile findings, and present their findings to an audience that includes experts in the field. To attain academic success, students must have opportunities to learn, reinforce, apply, and transfer their knowledge, skills, and technologies in a variety of settings.

Information Technology Career Cluster

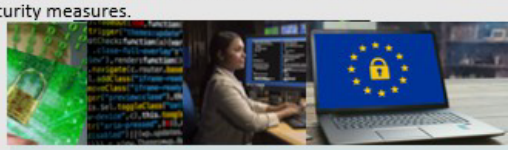
The Information Technology (IT) career cluster focuses on the design, development, support, and management of hardware, software, multimedia, and systems integration services. This career cluster includes occupations ranging from Software Developer and Programmer to Cybersecurity Specialists and Network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

Statewide Program of Study: Cybersecurity

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

Secondary Courses for High School Credit

- [redacted]
- Foundations of Cybersecurity
- Networking
- Computer Maintenance
- Cybersecurity Capstone
- [redacted]



Examples Postsecondary Opportunities

Associate Degrees
- Computer and Information Systems Security
- Computer Programming

Bachelor's Degrees
- Computer Science
- Computer Software Engineering

Master's, Doctoral, and Professional Degrees
- Computer and Information Systems Security/Auditing/Information Assurance
- Computer Software Engineering

Additional Stackable IBCs/License
- Certified Ethical Hacker (CEH)

Aligned Advanced Academic Courses

AP or IB	AP Computer Science Principles AP Computer Science A

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Intern at a local bank, hospital, or government office to develop skills in implementing security measures • Interview with an information security analyst to learn how they plan for, monitor, and upgrade security measures at their organization
Expanded Learning Opportunities	• Participate in a Hackathon • Participate in TSA or SkillsUSA

Aligned Industry-Based Certifications

- Cisco 100-490 RSTECH Supporting Cisco Routing and Switching Network Devices
- Cisco 200-201 CBROPS - Understanding Cisco Cybersecurity Operations Fundamentals
- Cisco CCNA (200-301) Implementing and Administering Cisco Solutions
- CodeHS Cybersecurity Level 1 Certification
- CompTIA A+ Certification
- CompTIA IT Fundamentals+
- CompTIA Network+
- CompTIA Security+
- Computer Networking Fundamentals - Job Ready
- Cybersecurity Fundamentals
- Cybersecurity Fundamentals: An ISACA Certificate
- Information Technology Specialist: Networking
- Information Technology Specialist: Java
- Information Technology Specialist: JavaScript
- Microsoft 365 Fundamentals
- Microsoft Security, Compliance, and Identity Fundamentals
- Oracle Certified Associate Java SE 8 Programmer
- Cloud Essentials+
- CompTIA Linux+
- CompTIA Server+

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

Example Aligned Occupations

Computer User Support Specialists
Median Wage: $51,411
Annual Openings: 5,757
10-Year Growth: 21%

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

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

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

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

Cybersecurity

Foundations of Cybersecurity Course #: 07224830

Recommended Grade Placement: 9 1 Credit

In this 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 cyber-attacks, threats, and vulnerabilities. Students will review and explore security policies designed to mitigate risks.

Networking Course #: 07224620

Recommended Grade Placement: 12 1 Credit

Recommended Prerequisite: Computer Maintenance

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

Computer Maintenance Course #: 07224520

Recommended Grade Placement: 11 1 Credit

Students acquire principles of computer maintenance, including electrical and electronic theory, computer hardware principles, and broad level components related to the installation, diagnosis, service, and repair of computer systems.

Cybersecurity Capstone Course #: 07224840

Recommended Grade Placement: 11-12 1 Credit

Prerequisite: Foundations of Cybersecurity

Students will develop the knowledge and skills needed to explore advanced concepts related to the ethics, laws, and operations of cybersecurity. Students will examine trends and operations of cyber-attacks, threats, and vulnerabilities, and students will develop security policies to mitigate risk. The skills obtained in this course will prepare students for additional study toward industry certification.

Information Technology Career Cluster

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

Statewide Program of Study: Programming and Software Development

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

Secondary Courses for High School Credit

- Computer Science I
- Computer Science II
- AP Computer Science A
- Computer Science III
-
-



Aligned Advanced Academic Courses

AP	AP Calculus AB AP Statistics
Dual Credit through TCC	BCIS 1305, ITNW 1309, COSC 1436, ITSE 1479, COSC 1437, ITSE 2417, CPMT 1403, ITSY 1300, COSC 2436, ITNW 1425, ITSE 2409, ITSE 1450

Example Postsecondary Opportunities

Apprenticeships
- Computer Programmer Apprenticeship

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

Bachelor's Degrees
- Data Science
- Computer Engineering

Master's, Doctoral, and Professional Degrees
- Management Science
- Computer Software Engineering

Additional Stackable IBCs/License
- AWS Certified Developer Associate

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Intern at a local IT company to develop skills in programming and coding • Shadow a software developer to learn how they create and improve software to support efficient processes at their company
Expanded Learning Opportunities	• Program and create a game • Participate in SkillsUSA or TSA

Aligned Industry-Based Certifications

- Apple App Development with Swift
- C++ Certified Associate Programmer
- Certified Entry-Level Python Programmer (PCEP)
- Certified Professional Programmer
- Certified User: Programmer
- CodeHS Python Level 1 Certification
- CompTIA IT Fundamentals+
- CompTIA Linux+
- Information Technology Specialist: Java
- Information Technology Specialist: JavaScript
- Microsoft Azure AI Fundamentals
- Microsoft Azure Data Fundamentals
- Oracle Certified Associate Java SE 8 Programmer
- Oracle Database SQL Certified Associate
- CompTIA A+ Certification
- CompTIA Server+

Example Aligned Occupations

Computer User Support Specialists
Median Wage: $51,411
Annual Openings: 5,757
10-Year Growth: 21%

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

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

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

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

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

Programming and Software Development

CISD offers an Associate Degree in Computer Programming through Tarrant County College. Please see the dual credit section of this guide for more information.

Computer Science I Course #: 07222205

Recommended Grade Placement: 9 1 Credit

Prerequisite: Algebra I

Students will access, analyze, and evaluate all types of information in ways that are computable in order to solve problems that range in scope from computing a speeding ticket to instructing a robot to dance, from designing interactive, intelligent fashion garments to creating a mobile app game. Students are exposed to the vast and diverse world of computer science, working collaboratively and individually on projects and learning a variety of programming languages, both graphical and text-based, to use in implementing their solutions.

Computer Science - Advanced Placement Course #: 07222206

Recommended Grade Placement: 11 1 Credit

Approved by State Board of Education for math credit | Prerequisite: Algebra I

This course is a college-level course equivalent of a first semester computer science course in college. Students will learn and apply computer science concepts to write computer programs in the Java programming language and to prepare for the AP Computer Science A exam in May. Students should be comfortable with algebraic functions and concepts including the use of functional notation such as f(x) = x + 2 and f (x) = g(h(x)), should be successful working independently, be prepared to spend 3-5 hours per week outside of the classroom working on programming assignments and accept the challenge of preparing for an AP exam. Students enrolling in Advanced Placement courses will be required to take the Advanced Placement or Mock AP exams for each course in order to receive credit. This course receives weighted credit for GPA calculation.

Computer Science II Course #: 07222220

Recommended Grade Placement: 10 1 Credit

Prerequisite: Computer Science I and Algebra I

This is the second in the sequence of computer science courses offered. Students will continue their learning of more advanced computer science concepts including object-oriented programming in the Java programming language. Students will learn much of the same information as contained in AP Computer Science A but without preparing for the AP exam.

Computer Science III Course #: 07222230

Recommended Grade Placement: 12 1 Credit

Prerequisite: Computer Science II or AP Computer Science

This is the third in the sequence of computer science courses offered. Students will learn additional data structures for storing and retrieving data including Sets, Maps, Lists, Stacks, Queues and Trees, and explore the advantages/disadvantages of each. Students will explore how technology impacts our lives by exploring current computer science topics such as artificial intelligence, cybersecurity and nanotechnology. In addition, students will choose computing topics of interest to research.

Law and Public Service Career Cluster

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

Statewide Program of Study: Emergency Services

The program of study focuses training students to respond to emergency situations, namely medical emergencies and fire-based emergencies. Students may learn how to prevent emergencies, respond appropriately and in accordance with rules and regulations during crises, and investigate and delineate the source of the emergency.

Secondary Courses for High School Credit

- Principles of Law, Public Safety, Corrections, and Security
- [redacted]
- [redacted]
- [redacted]
- Practicum in Law, Public Safety, Corrections, and Security



Example Postsecondary Opportunities

Apprenticeships
- Fire Apprentice

Associate Degrees
- Emergency Medical Technology
- Fire Protection Technology

Bachelor's Degrees
- Fire Science
- Emergency Health Services

Additional Stackable IBCs/License
- Hazardous Materials Awareness
- Fire Plan Examiner

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Shadow a fire chief to learn about fire department operations and skills needed to be a firefighter • Intern with a fire inspection company to learn about building safety, fire prevention, and fire protection
Expanded Learning Opportunities	• Tour a local fire department • Participate in SkillsUSA or TSA

Aligned Industry-Based Certifications

- Emergency Medical Technician – Basic
- Basic Structure Fire Protection
- IAED Emergency Telecommunicator
- Emergency Medical Responder

Example Aligned Occupations

Emergency Medical Technicians
Median Wage: $34,169
Annual Openings: 1,590
10-Year Growth: 19%

Firefighters
Median Wage: $52,353
Annual Openings: 2,294
10-Year Growth: 14%

Fire Inspectors and Investigators
Median Wage: $67,014
Annual Openings: 203
10-Year Growth: 14%

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

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

TEA Texas Education Agency

Successful completion of the Fire Science program of study will fulfill requirements of the Public Services endorsement.

Fire Science

Principles of Law, Public Safety, Corrections & Security Course #: 07099000

Recommended Grade Placement: 9 1 Credit

This course is designed to give students hands-on application in the Programs of Study of Law and Public Services. Topics include Law Enforcement, Criminal Investigation, Court Systems, and Emergency Response. Disaster Response Course #: 07229230 Recommended Grade Placement: 11 1 Credit Disaster Response includes basic training of students in disaster survival and rescue skills that would improve the ability of citizens to survive until responders or other assistance could arrive. Students will receive education, training, and volunteer service to make communities safer, stronger, and better prepared to respond to the threats of terrorism, crime, public health issues and disasters of all kinds.

Practicum In Law, Public Safety, Corrections, and Security Course #: 07229025

Recommended Grade Placement: 12 2 Credits

Prerequisite: At least two credits in Law Enforcement Pathway

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 Law, Public Safety, Corrections, and Security Career Cluster. Students shall be awarded two credits for successful completion of this course. A student may repeat this course once for credit provided that the student is experiencing different aspects of the industry and demonstrating proficiency in additional and more advanced knowledge and skills.

Law and Public Service Career Cluster

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

Statewide Program of Study: Law Enforcement

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

Secondary Courses for High School Credit

- Principles of Law, Public Safety, and Security
- Law Enforcement I
- Criminal Investigation
- Correctional Services
- Forensic Science
- Forensic Psychology
- Counseling and Mental Health
- Practicum in Law, Public Safety, and Security

Aligned Advanced Academic Courses

Dual Credit	CRIJ 1301, CRIJ 2313, CRIJ 1306, CRIJ 2328, GOVT 2305, CRIJ 2323, CJSA 1347, CRJ 1310, CJLE 1345, CRIK 1313, CRIJ 1307, CJSA 2388



Example Postsecondary Opportunities

Apprenticeships
- Security Specialist

Associate Degrees
- Criminal Justice
- Law Enforcement

Bachelor's Degrees
- Forensic Science
- Criminal Justice

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

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

Work-Based Learning and Expanded Learning Opportunities

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

Aligned Industry-Based Certifications

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

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

Example Aligned Occupations

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

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

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

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

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

Law Enforcement

Principles of Law, Public Safety, Corrections & Security Course #: 07099000

Recommended Grade Placement: 9 1 Credit

This course is designed to give students hands-on application in the Programs of Study of Law and Public Services. Topics include: Law Enforcement, Criminal Investigation, Court Systems, and Emergency Response. Disaster Response Course #: 07229230 Recommended Grade Placement: 11 1 Credit Disaster Response includes basic training of students in disaster survival and rescue skills that would improve the ability of citizens to survive until responders or other assistance could arrive. Students will receive education, training, and volunteer service to make communities safer, stronger, and better prepared to respond to the threats of terrorism, crime, public health issues and disasters of all kinds.

Law Enforcement I Course #: 072529110

Recommended Grade Placement: 10 1 Credit

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

Correctional Services Course #: 07229200

Recommended Grade Placement: 11 1 Credit

In Correctional Services, students prepare for certification required for employment as a correctional officer. The student will learn the role and responsibilities of a correctional officer; discuss relevant rules, regulations, and laws; and discuss defensive tactics, restraint techniques, and first aid procedures as used in the correctional setting. The student will analyze rehabilitation and alternatives to institutionalization.

Forensic Science Course #: 07229300

Recommended Grade Placement: 11 1 Credit

Approved by the State Board of Education for 4th science credit | Prerequisite: Biology and Chemistry

Forensic Science is a course that uses a structured and scientific approach to the investigation of crimes of assault, abuse and neglect, domestic violence, accidental death, homicide, and the psychology of criminal behavior. Students will learn terminology and investigative procedures related to crime scenes, questioning, interviewing, criminal behavior characteristics, truth detection, and scientific procedures used to solve crimes.

Forensic Psychology Course #: 07229260

Recommended Grade Placement: 12 1 Credit

Forensic psychology is found at the intersection between psychology and the criminal justice system. It involves understanding criminal law in the relevant jurisdictions in order to be able to interact within the criminal justice system. It utilizes and applies basic skills developed in psychology and criminal scenarios resulting in a structured and scientific approach to investigative analysis; thereby, enabling police and law enforcement officials to predict criminal activity via scientific analysis rather than intuition. Students will learn basic structured psychological investigative techniques in question building, interviewing, criminal behavior characteristics, truth detection methodology, research methods, statistical analysis and probability forecasting.

Practicum In Law, Public Safety, Corrections, and Security Course #: 07229025

Recommended Grade Placement: 12 2 Credits

Prerequisite: At least two credits in Law Enforcement Pathway

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 Law, Public Safety, Corrections, and Security Career Cluster. Students shall be awarded two credits for successful completion of this course. A student may repeat this course once for credit provided that the student is experiencing different aspects of the industry and demonstrating proficiency in additional and more advanced knowledge and skills.

Law and Public Service Career Cluster

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

Statewide Program of Study: Legal Studies

The Legal Studies program of study focuses on topics such as legal research, legal writing, rules of procedure, case management, law office technology, and legal ethics. Areas of the legal system studied include aspects of family law, criminal law, and contract law.

Secondary Courses for High School Credit

- Principles of Law, Public Safety, Corrections, and Security
- Court Systems & Practices
- Political Science
- [redacted]
- Legal Research and Writing
- Practicum in Law, Public Safety, Corrections, and Security

Aligned Advanced Academic Courses

Dual Credit	CRIJ 1301, CRIJ 2313, CRIJ 1306, CRIJ 2328, GOVT 2305, CRIJ 2323, CJSA 1347, CRJ 1310, CJLE 1345, CRIK 1313, CRIJ 1307, CJSA 2388



Example Postsecondary Opportunities

Apprenticeships
- Law Apprenticeship

Associate Degrees
- Paralegal Studies
- Court Reporting and Captioning

Bachelor's Degrees
- Legal Research
- Legal Studies

Master's, Doctoral, and Professional Degrees
- Juris Doctorate
- International and Comparative Law

Additional Stackable IBCs/Licensures
- Paralegal

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Shadow a clerk in a courthouse to learn about civil litigation • Intern at a law firm, working alongside a paralegal to produce and organize legal documents • Work part-time as an administrative assistant at a local non-profit that provides legal aid
Expanded Learning Opportunities	• Participate in Mock Trial

Aligned Industry-Based Certifications

- General Management
- Administrative Assisting

Example Aligned Occupations

Court Reporters
Median Wage: $51,177
Annual Openings: 174
10-Year Growth: 11%

Paralegals and Legal Assistants
Median Wage: $56,310
Annual Openings: 4,046
10-Year Growth: 23%

Lawyers
Median Wage: $134,158
Annual Openings: 3,915
10-Year Growth: 19%

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

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

Successful completion of the Legal Studies program of study will fulfill requirements of the Public Services endorsement.

Legal Studies

Principles of Law, Public Safety, Corrections & Security Course #: 07099000

Recommended Grade Placement: 9 1 Credit

This course is designed to give students hands-on application in the Programs of Study of Law and Public Services. Topics include Law Enforcement, Criminal Investigation, Court Systems, and Emergency Response. Disaster Response Course #: 07229230 Recommended Grade Placement: 11 1 Credit Disaster Response includes basic training of students in disaster survival and rescue skills that would improve the ability of citizens to survive until responders or other assistance could arrive. Students will receive education, training, and volunteer service to make communities safer, stronger, and better prepared to respond to the threats of terrorism, crime, public health issues and disasters of all kinds.

Court Systems & Practices Course #: 07229210

Recommended Grade Placement: 11 1 Credit

Court Services 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.

Legal Research and Writing Course #:07229130

Recommended Grade Placement: 10-11

Legal Research and Writing provides an introduction into the study and practice of legal writing and research. This course is designed to introduce students to the methods and tools used to conduct legal research, develop and frame legal arguments, produce legal writings such as briefs, memorandums, and other legal documents, study U.S. Constitutional law, and prepare for appellate argument(s).

Practicum In Law, Public Safety, Corrections, and Security Course #: 07229025

Recommended Grade Placement: 12 2 Credits

Prerequisite: At least two credits in Law Enforcement Pathway

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 Law, Public Safety, Corrections, and Security Career Cluster. Students shall be awarded two credits for successful completion of this course. A student may repeat this course once for credit provided that the student is experiencing different aspects of the industry and demonstrating proficiency in additional and more advanced knowledge and skills.

Engineering Career Cluster

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

Statewide Program of Study: Engineering Foundations

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

Secondary Courses for High School Credit

- Introduction to Engineering Design
- Robotics I
- Engineering Science
- Robotics II
- [redacted]
- Practicum of STEM

Aligned Advanced Academic Courses

AP	AP Calculus AB AP Computer Science A	AP Physics 1 AP Physics 2 AP Statistics



Example Postsecondary Opportunities

Apprenticeships
- Industrial Engineering Technician Apprenticeship

Associate Degrees
- Manufacturing Engineering Technology/ Technician
- Robotics Technology/Technician

Bachelor's Degrees
- Electrical and Electronics Engineering
- Engineering, General

Master's, Doctoral, and Professional Degrees
- Electrical and Electronics Engineering
- Engineering, General

Additional Stackable IBCs/Licensures
- Professional Engineer (PE License)
- Engineer in Training Certification (EIT)

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Intern at an engineering, robotics, or aerospace company. • Visit an engineering firm and shadow multiple types of engineers.
Expanded Learning Opportunities	• Participate in SkillsUSA or TSA • Join a local engineering association and attend meetings.

Aligned Industry-Based Certifications

- Autodesk Associate (Certified User) AutoCAD
- Autodesk Associate (Certified User) Fusion 360
- Autodesk Associate (Certified User) Inventor for Mechanical Design
- Autodesk Associate (Certified User) Revit Architecture
- Autodesk Associate (Certified User) Revit for Electrical
- Autodesk Associate (Certified User) Revit for Structural Design
- Autodesk Certified Professional Fusion 360
- Autodesk Certified Professional in AutoCAD for Design and Drafting
- Autodesk Certified Professional in Civil 3D for Infrastructure Design
- Autodesk Certified Professional in Inventor for Mechanical Design
- Autodesk Certified Professional in Revit for Architectural Design
- Autodesk Certified Professional in Revit for Electrical Design
- Autodesk Certified Professional in Revit for Structural Design
- C-103 Certified Industry 4.0 Associate – Robot System Operations
- Certified SOLIDWORKS Associate (CSWA) – Academic
- Certified SOLIDWORKS Associate (CSWA) – Electrical
- Certified SOLIDWORKS Associate (CSWA) – Mechanical Design
- Certified SOLIDWORKS Associate (CSWA) – Simulation
- Certified SOLIDWORKS Associate (CSWA) – Sustainability
- Certified SOLIDWORKS (CSWP) – Academic
- Certified SOLIDWORKS Professional (CSWP) – Mechanical Design
- Certified SOLIDWORKS Professional (CSWP) – Model Based Definition
- Certified SOLIDWORKS Professional (CSWP) – Simulation
- Certified SOLIDWORKS Professional (CSWPA) – Drawing Tools
- Engineering Technology Foundations
- Pre-Engineering/Engineering Technology – Job Ready
- FANUC Robot Operator 1
- Certified Logistics Technician (CLT)
- Certified Production Technician (CPT) 4.0
- Lean Six Sigma Green Belt Certification

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

Example Aligned Occupations

Civil Engineering Technologists and Technicians
Median Wage: $61,138
Annual Openings: 765
10-Year Growth: 11%

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

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

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

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

Engineering Foundations

Introduction to Engineering Design (IED) – Project Lead the Way Course #: 07228000

Recommended Grade Placement: 9-10 1 Credit

Designed for 9th or 10th grade students and serves as the foundation for all PLTW courses, the major focus of the IED course is to expose students to the design process, research and analysis, teamwork, communication methods, global and human impacts, engineering standards and technical documentation. Students use 3D solid modeling design software to help them design solutions to solve proposed problems and learn how to document their work and communicate solutions to peers and members of the professional community. PLTW courses may count for college credit and will receive additional weight using the Dual Credit scale for the weighted GPA.

Engineering Science Course #: 07228120

Recommended Grade Placement: 10-11 1 Credit

Prerequisite: Algebra I and Biology, Chemistry, or Physics | Recommended prerequisite: Geometry

This survey course of engineering exposes students to major concepts they'll encounter in a postsecondary engineering course of study. Students employ engineering and scientific concepts in the solution of engineering design problems. They develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges, documenting their work and communicating solutions to peers and members of the professional community. PLTW courses may count for college credit and will receive additional weight using the Dual Credit scale for the weighted GPA.

Robotics I Course: 07228930

Recommended Grade Placement: 10 1 Credit

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.

Robotics II Course: 07228931

Recommended Grade Placement: 11

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.

Practicum of Engineering Course #: 07228920

Recommended Grade Placement: 11-12 2 Credit

Prerequisite: Algebra I and Geometry

Recommended Prerequisite: Two credits in Programming and Software Program of Study

This 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. A student may repeat this course once for credit provided that the student is experiencing different aspects of the industry and demonstrating proficiency in additional and more advanced knowledge and skills.

Engineering Career Cluster

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

Statewide Program of Study: Mechanical and Aerospace Engineering

The Mechanical and Aerospace Engineering program of study focuses on occupational and educational opportunities associated with the design, development, maintenance, and testing of engines, machines, and structures related to aircraft and spacecraft. Students will design, test, and evaluate projects related to aerodynamics, structural, and mechanical design. This program of study includes applying scientific, mathematical, and empirical evidence to solve problems related to navigation, mechanics, robotics, propulsion, and combustion.

Secondary Courses for High School Credit

- Introduction to Engineering Design
- Introduction to Computer-Aided Design and Drafting
- Intermediate Computer-Aided Design and Drafting
- [redacted]
- Aerospace Engineering
- Practicum of STEM

Aligned Advanced Academic Courses

AP	AP Calculus AB AP Calculus BC	AP Physics 1 AP Physics 2 AP Statistics



Example Postsecondary Opportunities

Apprenticeships
- Mechanical Engineering Technician

Associate Degrees
- Mechanical Engineering
- Aeronautics/Aviation/Aerospace Science and Technology, General

Bachelor's Degrees
- Aeronautical/Aerospace Engineering Technology/Technician
- Aeronautics/Aviation/Aerospace Science and Technology, General

Master's, Doctoral, and Professional Degrees
- Electrical and Electronics Engineering
- Aeronautics/Aviation/Aerospace Science and Technology, General

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Intern at an aviation or aerospace company • Shadow a mechanical engineer to understand design and testing processes
Expanded Learning Opportunities	• Participate in SkillsUSA or TSA • Tour an aerospace facility

Aligned Industry-Based Certifications

- Autodesk Associate (Certified User) AutoCAD
- Autodesk Associate (Certified User) Fusion 360
- Autodesk Associate (Certified User) Inventor for Mechanical Design
- Autodesk Associate (Certified User) Revit Architecture
- Autodesk Associate (Certified User) Revit for Electrical
- Autodesk Associate (Certified User) Revit for Structural Design
- Autodesk Certified Professional Fusion 360
- Autodesk Certified Professional in AutoCAD for Design and Drafting
- Autodesk Certified Professional in Civil 3D for Infrastructure Design
- Autodesk Certified Professional in Inventor for Mechanical Design
- Autodesk Certified Professional in Revit for Architectural Design
- Autodesk Certified Professional in Revit for Electrical Design
- Autodesk Certified Professional in Revit for Structural Design
- C-103 Certified Industry 4.0 Associate – Robot System Operations
- Certified SOLIDWORKS Associate (CSWA) – Academic
- Certified SOLIDWORKS Associate (CSWA) – Electrical
- Certified SOLIDWORKS Associate (CSWA) – Mechanical Design
- Certified SOLIDWORKS Associate (CSWA) – Simulation
- Certified SOLIDWORKS Associate (CSWA) – Sustainability
- Certified SOLIDWORKS (CSWP) – Academic
- Certified SOLIDWORKS Professional (CSWP) – Mechanical Design
- Certified SOLIDWORKS Professional (CSWP) – Model Based Definition
- Certified SOLIDWORKS Professional (CSWP) – Simulation
- Certified SOLIDWORKS Professional (CSWPA) – Drawing Tools
- Engineering Technology Foundations
- Pre-Engineering/Engineering Technology – Job Ready
- FANUC Robot Operator 1
- Certified Logistics Technician (CLT)
- Certified Production Technician (CPT) 4.0
- Lean Six Sigma Green Belt Certification

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

Example Aligned Occupations

Aerospace Engineering and Operations Technologists and Technicians
Median Wage: $48,204
Annual Openings: 192
10-Year Growth: 21%

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

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

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

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

Engineering Foundations

Introduction to Engineering Design (IED) – Project Lead the Way Course #: 07228000

Recommended Grade Placement: 9 1 Credit

Designed for 9th or 10th grade students and serves as the foundation for all PLTW courses, the major focus of the IED course is to expose students to the design process, research and analysis, teamwork, communication methods, global and human impacts, engineering standards and technical documentation. Students use 3D solid modeling design software to help them design solutions to solve proposed problems and learn how to document their work and communicate solutions to peers and members of the professional community. PLTW courses may count for college credit and will receive additional weight using the Dual Credit scale for the weighted GPA.

Introduction to Computer-Aided Design and Drafting Course#: 07228401

Recommended Grade Placement: 9-10 1 Credit

Introduction to Computer-Aided Design and Drafting (CADD), introduces students to CADD equipment, software selection and interfaces; setting up a CADD workstation; upgrading a computer to run advanced CADD software; storage devices; storing, retrieving, back-up and sharing databases; file servers and local area networks (LANs); and transferring drawing files over the Internet.

Intermediate Computer-Aided Design and Drafting Course#: 07228402

Recommended Grade Placement: 10-11 1 Credit

Intermediate Computer-Aided Design and Drafting (CADD), focuses on the fundamentals of computer-aided drafting using various drafting programs. Emphasis is placed on drawing set up; creating and modifying geometry; storing and retrieving predefined shapes; placing, rotating, and scaling objects; adding text and dimensions; using layers and coordinating systems; and using input and output devices.

Aerospace Engineering (AE) - Project Lead The Way Course #: 07228210

Recommended Grade Placement: 11-12 1 Credit

Aerospace Engineering engages students in engineering design problems related to aerospace information systems, astronautics, rocketry, propulsion, the physics of space science, space life sciences, the biology of space science, principles of aeronautics, structures and materials, and systems engineering. Using 3-D design software, students work in teams utilizing hands-on activities, projects and problems and are exposed to various situations encountered by aerospace engineers. This course is designed for 11th or 12th grade students. PLTW courses may count for college credit and will receive additional weight using the Dual Credit scale for the weighted GPA.

Engineering Career Cluster

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

Regional Program of Study: Unmanned Autonomous Vehicles/Systems (UAV/UAS)

The UAV/UAS program of study focuses on the occupational and educational opportunities associated with operating or designing an unmanned aircraft using a ground-based controller. This program of study includes understanding and designing systems of communications between the controller and the aircraft to ensure compliance with federal aviation safety regulations.

Secondary Courses for High School Credit

- Robotics I
- Introduction to Unmanned Aerial Vehicles (UAV)
- Geographic Information Systems
- Raster-based Geographical Information Systems
- Spatial Technology and Remote Sensing
- Practicum of STEM

Aligned Advanced Academic Courses

Dual Credit	GISC 1402, GISC 2402, GISC 2401, GISC 2404, GISC 2420



Example Postsecondary Opportunities

Associate Degrees
- Airline/Commercial/Professional Pilot and Flight Crew
- Manufacturing Engineering Technology/Technician

Bachelor's Degrees
- Aviation Science
- Aeronautical/Aerospace Engineering Technology

Master's, Doctoral, and Professional Degrees
- Aerospace, Aeronautical, and Astronautical/Space Engineering, General

Additional Stackable IBCs/License
- Aerial Mapping and 3D Modeling Certification

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Intern with a public service, engineering, construction, or transportation firm • Practice drone operations with an industry professional at a work site
Expanded Learning Opportunities	• Participate in an aerial drone competition • Participate in SkillsUSA or TSA

Aligned Industry-Based Certifications

- FAA Part 107 Remote Drone Pilot

Successful completion of the Drone (Unmanned Vehicle) regional program of study will fulfill requirements of the Business and Industry endorsement.

Example Aligned Occupations

Aerospace Engineering and Operations Technicians
Median Wage: $48,204
Annual Openings: 192
10-Year Growth: 21%

Avionics Technicians
Median Wage: $72,461
Annual Openings: 255
10-Year Growth: 16%

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

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

Drone (Unmanned Vehicle)

Robotics I Course#:

Recommended Grade Placement: 9-10 1 Credit

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.

Introduction to Unmanned Aerial Vehicles (UAV) Course#:

Recommended Grade Placement: 10 1 Credit

The Introduction to Unmanned Aerial Vehicle (UAV) Flight course is designed to prepare students for entry-level employment or continuing education in piloting UAV operations. Principles of UAV is designed to instruct students in UAV flight navigation, industry laws and regulations, and safety regulations. Students are also exposed to mission planning procedures, environmental factors, and human factors involved in the UAV industry.

Geographic Information Systems Course#:

Recommended Grade Placement: 10 1 Credit

Geographic Information Systems (GIS) is a course designed to introduce students to Geographic Information Systems and Remote Sensing (RS) technology through academic study and applied instruction. Students will be introduced to terminology and concepts relating to GIS/RS technology and will apply these concepts through the use of GIS software programs. Students will participate in structured, applied learning exercises taken from existing data sources, as well as conduct new study of these data sources through self-driven study and analysis. An ongoing emphasis of the use of GIS and RS technology in various career fields will enhance the applied learning activities and exercises. Skill based training in GIS is designed to introduce students to the use of GIS software and software extensions through academic study and extensive applied instruction. Students will be introduced to terminology and concepts relating to GIS and apply these concepts through the use of industry standard software.

Raster-based Geographical Information Systems Course#:

Recommended Grade Placement: 11 1 Credit

This course introduces the principles of Geographic Information Systems (GIS) data sets including raster based information such as images or photographs. Students will study local problems and acquire information, including images or aerial photographs, process the data they acquire, and merge the acquired data with vector data. Students will plan, conduct, and present solutions for locally based problems.

Spatial Technology and Remote Sensing Course #:

Recommended Grade Placement: 11 1 Credit

This course is designed to provide students with instruction in Geographic Information Systems (GIS) and Remote Sensing (RS) technology. Students will receive instruction in standard geospatial extension software and geospatial tools, including global positioning systems (GPS), and continued training in GIS project management and problem solving. Each student will participate in applied learning activities with emphasis placed on planning, conducting, and presenting special projects dealing with the use of GIS/RS tools and data.

Practicum of STEM Course #: 07228920

Recommended Grade Placement: 11-12 2 Credits

Prerequisite: Algebra I and Geometry

Recommended Prerequisite: Two credits in Programming and Software Program of Study

This 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. A student may repeat this course once for credit provided that the student is experiencing different aspects of the industry and demonstrating proficiency in additional and more advanced knowledge and skills.

Transportation, Distribution, and Logistics Career Cluster

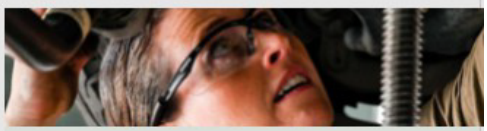
The Transportation, Distribution, and Logistics career cluster focuses on planning, management, and movement of people, materials, and goods by road, pipeline, air, rail, and water. It also includes transportation infrastructure planning and management, logistics services, and mobile equipment and facility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

Statewide Program of Study: Automotive Repair

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

Secondary Courses for High School Credit

- Small Engine Technology
- Automotive Basics
- Automotive Technology I
- Automotive Technology II
- Practicum in Transportation Systems



Example Postsecondary Opportunities

Apprenticeships
- Automotive Technician Apprenticeship

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

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

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

Aligned Advanced Academic Courses

Dual Credit	AUMT 1405, AUMT 1407, AUMT 2317, AUMT 2434, AUMT 2321, AUMT 2388

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Shadow an automotive technician at a car dealership • Intern at a rental car company and assist technicians with vehicle maintenance • Work at a local automotive repair shop and hold both customer service duties and automatic repair duties
Expanded Learning Opportunities	• Join a related automotive association and attend events • Participate in SkillsUSA

Aligned Industry-Based Certifications

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

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

Example Aligned Occupations

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

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

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

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

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

Automotive and Collision Repair

Small Engine Technology I Course #: 07229615

Recommended Grade Placement: 9 1 Credit

Small Engine Technology I includes knowledge of the function and maintenance of the systems and components of all types of small engines such as outdoor power equipment, motorcycles, generators, and irrigation engines. This course is designed to provide training for employment in the small engine technology industry. Instruction includes the repair and service of cooling, air, fuel, lubricating, electrical, ignition, and mechanical systems. In addition, the student will receive instruction in safety, academic, and leadership skills as well as career opportunities.

Automotive Basics Course #: 07220135

Recommended Grade Placement: 11 1 Credit

NOTE: This course must be taken concurrently with Automotive Technology I

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.

Automotive Technology I: Maintenance and Light Repair Course #: 07229600

Recommended Grade Placement: 11 2 Credits

Recommended Prerequisite: Small Engine Technology I | NOTE: This course must be taken concurrently with Automotive Basics

Automotive Technology I: Maintenance and Light Repair include 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. 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.

Automotive Technology II: Automotive Service Course #: 07229601

Recommended Grade Placement: 12 2 Credits

Prerequisite: Automotive Technology I: Automotive Basics | NOTE: This course must be taken concurrently with Advanced Transportation Systems Laboratory

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

and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings. The focus of this course is to teach safety, tool identification, proper tool use, and employability.

Practicum in Transportation Systems Course #: 07229835

Recommended Grade Placement: 11-12 2 Credits

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 Aviation Flight program of study. Students shall be awarded two credits for successful completion of this course. A student may repeat this course once for credit provided that the student is experiencing different aspects of the industry and demonstrating proficiency in additional and more advanced knowledge and skills.

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, and mobile equipment and facility maintenance. This career cluster includes a diverse spectrum of occupations, ranging from automotive mechanic, avionics technician, automotive entrepreneur, pilots to logistics planning professionals.

Statewide Program of Study: Aviation Maintenance

The Aviation Maintenance program of study focuses on occupational and educational opportunities associated with maintenance and repair of airframe structures, systems, and components of an aircraft. This program of study includes exploration of aircraft maintenance procedures, air navigational aids, air traffic controls, and communication equipment to ensure compliance with federal safety regulations.

Secondary Courses for High School Credit

- Introduction to Aircraft Technology
- Occupational Safety and Environmental Technology
- Principles of Transportation Systems
- Aircraft Airframe Technology
- Aircraft Powerplant Technology and Advanced Transportation Systems Laboratory
- Practicum in Transportation Systems



Example Postsecondary Opportunities

Apprenticeships
- Aircraft Mechanic Apprentice

Associate Degrees
- Avionics Maintenance Technology
- Aeronautics/Aviation/Aerospace Science and Technology

Bachelor's Degrees
- Aircraft Powerplant Technology
- Airframe Mechanics and Aircraft Maintenance Technology

Master's, Doctoral, and Professional Degrees
- Aerospace, Aeronautical, and Astronautical/Space Engineering
- Industrial Technology

Additional Stackable IBCs/License
- Certificated Aviation Maintenance Technician

Aligned Advanced Academic Courses

AP	AP Physics C: Mechanics
Dual Credit	Dual credit offerings through Tarrant County College

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Shadow an aviation maintenance technician at an airport to learn about aircraft inspection and maintenance • Participate in an aircraft maintenance apprenticeship at an airline or a defense technology company
Expanded Learning Opportunities	• Participate in TechForce • Participate in SkillsUSA • Explore associations such as Aircraft Mechanics Association and Women in Aviation

Aligned Industry-Based Certifications

- Aerospace Manufacturing Certification
- Industrial Technology Maintenance (ITM) – Maintenance Operations
- Industrial Technology Maintenance (ITM) – Electrical Systems
- Industrial Technology Maintenance (ITM) - Basic Mechanical Systems
- Industrial Technology Maintenance (ITM) – Basic Pneumatic Systems

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

Example Aligned Occupations

Aerospace Engineering and Operations Technicians
Median Wage: $48,204
Annual Openings: 192
10-Year Growth: 21%

Aircraft Mechanics and Service Technicians
Median Wage: $67,683
Annual Openings: 1,636
10-Year Growth: 16%

Avionics Technicians
Median Wage: $72,461
Annual Openings: 255
10-Year Growth: 16%

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

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

Aviation Maintenance

Information concerning courses can be found in the Dual Credit section of this guide.

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, and mobile equipment and facility maintenance. This career cluster includes a diverse spectrum of occupations, ranging from automotive mechanic, avionics technician, automotive entrepreneur, pilots to logistics planning professionals.

Statewide Program of Study: Aviation Pilots

The Pilots and Aviation Operations program of study focuses on occupational and educational opportunities associated with the principles and science of flight. This program of study includes the exploration and understanding of aviation engineering, air navigational aids, air traffic controls, and communications equipment to ensure conformance with federal safety regulations.

Secondary Courses for High School Credit

- Introduction to Aerospace and Aviation
- Introduction to Unmanned Aerial Vehicle (UAV)
- Aviation Ground School
- Practicum in Transportation Systems



Example Postsecondary Opportunities

Apprenticeships
- Air Transport Pilot Apprentice

Associate Degrees
- Airline/Commercial/Professional Pilot and Flight Crew

Bachelor's Degrees
- Airline/Commercial/Professional Pilot and Flight Crew

Additional Stackable IBCs/License
- Airman Certificate

Aligned Advanced Academic Courses

AP	AP Calculus BC AP Physics C: Mechanics

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Shadow a commercial airline pilot for to learn about pre- and post-flight routines • Intern at a technology company that produces drones to learn about aerial robotics and drone pilot requirements
Expanded Learning Opportunities	• Explore virtual aviation websites • Participate in SkillsUSA

Aligned Industry-Based Certifications

- FAA Part 107 Remote Drone Pilot

Example Aligned Occupations

Commercial Pilots
Median Wage: $108,120
Annual Openings: 663
10-Year Growth: 20%

Airline Pilots, Copilots, and Flight Engineers
Median Wage: $180,060
Annual Openings: 1,204
10-Year Growth: 14%

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

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

Successful completion of the Pilots and Aviation Operations program of study will fulfill requirements of the Business and Industry endorsement.

Aviation Pilots

Introduction to Aerospace & Aviation Course #: 07229860

Recommended Grade Placement: 9-10 1 Credit

The Introduction to Aerospace and Aviation course will provide the foundation for advanced exploration in the areas of professional pilot, aerospace engineering, and unmanned aircraft systems. Students will learn about the history of aviation, from Leonardo da Vinci's ideas about flight to the Wright brothers and the space race. Along the way students will learn about the innovations and technological developments that have made today's aviation and aerospace industries possible. The course includes engineering practices, the design process, aircraft structure, space vehicles past and present, and a look toward future space exploration.

Introduction to Unmanned Aerial Vehicle (UAV) Flight Course #: 07229850

Recommended Grade Placement: 9-11 1 Credit

The Introduction to Unmanned Aerial Vehicle (UAV) Flight course is designed to prepare students for entry-level employment or continuing education in piloting UAV operations. Principles of UAV is designed to instruct students in UAV flight navigation, industry laws and regulations, and safety regulations. Students are also exposed to mission planning procedures, environmental factors, and human factors involved in the UAV industry.

Aviation Ground School Course #: 07229870

Recommended Grade Placement: 11-12 1 Credit

This course is designed to extend student interests in all aspects of aviation while preparing students to take the formal ground requisite exam for the Federal Aviation Administration (FAA) FAA Airman Knowledge Test which is required to obtain a private pilot's license. The rigor of the course challenges students with complex aeronautical, engineering, weather, management and judgment concepts. Rules, regulations, obligations, and commitments to discipline and focus are foundational throughout the course. The ability to grasp flight without actually flying a real aircraft extends well beyond the classroom as students learn navigation, weather science, attention to detail (mathematical fuel and load planning), health and mental well-being related to flight planning and piloting aircraft.

Practicum in Transportation Systems Course #: 07229835

Recommended Grade Placement: 11-12 2 Credits

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 Aviation Flight program of study. Students shall be awarded two credits for successful completion of this course. A student may repeat this course once for credit provided that the student is experiencing different aspects of the industry and demonstrating proficiency in additional and more advanced knowledge and skills.

Transportation, Distribution, and Logistics Career Cluster

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

Statewide Program of Study: Distribution, Logistics, and Warehousing

The Distribution, Logistics and Warehousing program of study focuses on educational and occupational opportunities associated with business planning and management aspects of distribution, logistics and warehousing. This program of study includes exploration of the history, laws, regulations, and common practices used in the logistics of warehousing and distribution systems.

For course information, see the dual credit section of this guide.



Aligned Advanced Academic Courses

Dual Credit	Degree conferred through Tarrant County College

Example Postsecondary Opportunities

Apprenticeships
- Motor Transport Operator Apprenticeship

Associate Degrees
- Logistics, Materials, and Supply Chain Management
- Transportation and Mobility Management

Bachelor's Degrees
- Transportation and Mobility Management
- Logistics and Supply Chain Management

Master's, Doctoral, and Professional Degrees
- Supply Chain Management
- Transportation and Mobility Management

Additional Stackable IBCs/License
- Commercial Driver's License
- Certified Supply Chain Professional

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Intern at a fulfillment center to learn about planning and distribution of goods • Shadow an operations manager at a local company's warehouse to learn about the people and technology resources necessary to implement an operations plan
Expanded Learning Opportunities	• Attend transportation, distribution and logistics expos • Join the Transportation Association, Supply Chain Association, or Freight Forwarder and attend events with students

Aligned Industry-Based Certifications

- Industrial Technology Maintenance (ITM) - Process Control Systems
- Certified Logistics Technician (CLT)

Successful completion of the Distribution, Logistics, and Warehousing program of study will fulfill requirements of the Business and Industry endorsement.

Example Aligned Occupations

Shipping, Receiving, and Inventory Clerks
Median Wage: $36,363
Annual Openings: 7,293
10-Year Growth: 7%

Production, Planning, and Expediting Clerks
Median Wage: $48,887
Annual Openings: 4,415
10-Year Growth: 21%

Transportation, Storage, and Distribution Managers
Median Wage: $97,989
Annual Openings: 1,377
10-Year Growth: 22%

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

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

Distribution, Logistics, and Warehousing

Information concerning courses can be found in the Dual Credit section of this guide.