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The Alief Independent School District does not discriminate on the basis of race, religion, color, national origin, sex, age, or disability in providing education or providing access to benefits of education services, activities, and programs including vocational programs, in accordance with Title VI of the Civil Rights Act of 1964, as amended; Title IX of the Educational Amendments of 1972; Section 504 of the Rehabilitation Action of 1973, as amended; Title II of the Americans with Disabilities Act; and the Age Discrimination Act of 1975.

## ABOUT THIS GUIDE

This guide is designed to help students, with the support of their parents and school personnel, to select the courses they will take in high school. All programs have been developed with the philosophy that excellence in education is equally important for all students. Every high school student needs a plan for high school and beyond, and this guide is designed to help with the plan.

A student's high school education, whether taken in preparation for college or career, is influenced by the selection of courses and by the application of the student's abilities. A major portion of the schoolwork consists of fundamentals needed for life. It is essential that all students have the following academic competencies: reading, writing, speaking, and listening, mathematics, reasoning, and study skills, as well as skills in interacting with others in teams or groups.

Please use the guide as a source of information and as an aid in preparing your school program. Your counselor will answer any questions that you may have about a particular area or will help you gather information that is not currently available in this guide.

## CREDITS

Students must take state-approved courses to earn credits toward graduation. Students are encouraged to take more courses than the minimum courses required to graduate. The number of credits earned determines grade level placement. Grade level changes take place at the end of the school year.

| CREDITS FOR GRADE LEVEL PLACEMENT | |
|---|---|
| | For Freshmen Entering High School in 2007-2008 and thereafter |
| Grade 10 | 6 |
| Grade 11 | 12 |
| Grade 12 | 19 |

## FOUNDATION HIGH SCHOOL PROGRAM

All students entering 9th grade in 2014-2015 and thereafter must enroll in courses necessary to complete the curriculum requirements for the Foundation High School Program with at least one endorsement. Students may earn a distinguished level of achievement by successfully completing the curriculum requirements for the Foundation High School Program with at least one endorsement including Algebra II as one of the four mathematics courses. Specific course requirements are subject to change based on 2014 legislation. See below for the Foundation High School Graduation Program Overview.

# Foundation High School Graduation Program Overview

| *Foundation Only*<br>*22 credits* | *Foundation + Endorsement*<br>*26 credits* | *Distinguished Level of Achievement- 26 credits* |
|---|---|---|
| ➢ 4 credits English- ELA I, II, III, IV or one credit in any authorized advanced English course | ➢ 4 credits English- ELA I, II, III, IV or one credit in any authorized advanced English course | ➢ 4 credits English- ELA I, II, III, IV or one credit in any authorized advanced English course |
| ➢ 3 credits Mathematics- Algebra I, Geometry, one credit in any authorized advanced math course | ➢ 4 credits Mathematics- Algebra I, Geometry, two credits in any authorized advanced math course | ➢ 4 credits Mathematics- Algebra I, Geometry, *Algebra II (required), one credit in any authorized advanced math course |
| ➢ 3 credits Science- Biology, IPC/ Chemistry/ Physics, and one credit in any authorized science course | ➢ 4 credits Science- Biology, IPC/ Chemistry/ Physics, and two credits in any authorized science course | ➢ 4 credits Science- Biology, IPC/ Chemistry/ Physics, and two credits in any authorized science course |
| ➢ 3 credits Social Studies- US History, Government, Economics or Economics with Personal Financial Literacy, World Geography or World History | ➢ 3 credits Social Studies- US History, Government, Economics or Economics with Personal Financial Literacy, World Geography or World History | ➢ 3 credits Social Studies- US History, Government, Economics or Economics with Personal Financial Literacy, World Geography or World History |
| ➢ 2 credits Language other than English (LOTE) or Computer Science | ➢ 2 credits Language other than English (LOTE) or Computer Science | ➢ 2 credits Language other than English (LOTE) or 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 |
| ➢ 1 Technology (Alief) | ➢ 1 Technology (Alief) | ➢ 1 Technology (Alief) |
| ➢ 4 elective credits | ➢ 6 elective credits (to include credits specific to at least one endorsement) | ➢ 6 elective credits (to include credits specific to at least one endorsement) |
| *Note: Algebra 2 is required for a student to earn the distinguished level of achievement and to qualify for automatic admission (percentage requirements vary by institution).* | | |

## Endorsements, Programs, and Pathways

| STEM | Business & Industry | Public Service | Arts & Humanities | Multidisciplinary Studies |
|---|---|---|---|---|
| -Computer Science<br>-Engineering<br>-Math<br>-Science | -Advanced Journalism- Newspaper & Yearbook<br>-Agriculture, Food & Natural Resources<br>-Architecture & Construction<br>-Arts, A/V Technology & Communications<br>-Business, Marketing & -Finance<br>-Debate<br>-Hospitality & Tourism<br>-Information Technology<br>-Manufacturing<br>-Public Speaking<br>-Transportation | -Education & Training<br>-Health Science<br>-JROTC | -English<br>-Fine/ Performing Arts- Art, Theatre, Dance & Music<br>-Language other than -English (LOTE) | -4 Advanced courses in same or different endorsement area<br>-4 credits in each core subject area to include English 4 and Chemistry and/or Physics.<br>-4 credits in advanced placement or dual credit |

| State Assessments Required for Graduation | | Performance Acknowledgements |
|---|---|---|
| English I<br>English II<br>Algebra I | US History<br>Biology | -Earning a nationally / internationally recognized business/industry certificate or license.<br><br>-Outstanding Performance:<br>• In Dual Credit (12 hours with 3.0 or higher) or Associate degree while in high school<br>• In Bilingualism/Biliteracy<br>• On AP Exam (score of 3 or higher)<br>• On PSAT, ACT-PLAN, SAT, or ACT |

## ADVANCED ACADEMICS

Alief ISD's Advanced Academics Services includes Advancement Via Individual Determination (AVID), Advanced Placement (AP), Alief Advanced Academic Courses (Alief AAC), Dual Credit, and OnRamps courses that provide students the opportunity to demonstrate college readiness and earn college credit.

## ALIEF ADVANCED ACADEMICS COURSES (AAC) and ADVANCED PLACEMENT (AP)

Alief AAC (formerly Pre-AP) courses are rigorous courses designed to prepare students for success in Advanced Placement courses in high school. Courses identified as an Alief Advanced Academic Course are in the same content area as Advanced Placement courses designed to develop the skills and concepts necessary for a student to be successful. The College Board recommends that a continuum of these skills be taught as a foundation leading up to the challenging and rigorous courses in the AP program.

Through the Advanced Placement Program, students can pursue college-level studies while still in high school. Students have access to more than 20 AP courses and the opportunity to earn college credit at the end of each course by taking the corresponding AP exam administered in May and earning a passing score of 3, 4, or 5.

Alief ISD has an open-enrollment policy in place for students interested in Alief AAC and AP courses. Requirements are in place to enroll in these courses. See your counselor for details.

Students who have achieved the following may sign up for Alief AAC and AP courses:

- Have an 80 or higher average in the content area for which he/she is enrolling.
- Passed the most current EOC test in the content area for which he/she is enrolling. If there is no EOC test for the content, the student must have passed the most recent English/Reading EOC.

Students who do not meet the qualifications of the open-enrollment policy but are interested in taking an AP course would need to consult with the campus Advanced Placement Coordinator and Counselor who will review grades, assessment scores (PSAT, STAAR/EOC), current schedule, and attendance before approving an AP course or Alief AAC request.

**Note:** Alief AAC/AP courses carry a weighted grade point enabling students to earn a higher-grade point average than with regular courses.

## AP EXAMS

AP Exams are offered at no cost to students/parents. Students have the option to register for the AP exam with their AP teacher or campus AP Coordinator in October of the school year. Failure to take an exam for which a student has registered will incur a $40 fee per exam. Students and parents will receive an AP Exam Participation letter to sign acknowledging the student's participation in AP courses, the exams the student will be registered to take, and fees assessed for exams ordered but not taken.

*Sending AP Scores*

- To get college credit or placement for AP scores, students must request that College Board send an official AP score report to the college or university.
- Student can send scores for free to one college or university every year they take AP Exams. To use the free score send, students will:
    - Sign in to My AP (College Board account)
    - Go to My AP Profile

- Select the Score Send tab and choose the college, university, or scholarship organization that you want to receive your score report.
- Visit https://apstudents.collegeboard.org/sending-scores for additional information on sending AP scores.

## AVID

AVID stands for Advancement Via Individual Determination and is a college-readiness support system that helps students in the academic middle learn and apply the necessary mindset and skills for success in college without remediation. Enrollment in the AVID Elective course at high school is determined through the application and interview process. Students who are enrolled in the AVID program will learn skills and behaviors for academic success, receive intensive support through tutorials, create strong, positive relationships with their peer groups, and develop goals for personal achievement through hard work and determination. For more information, see your campus AVID Site Coordinator.

## COLLEGE ADMISSIONS EXAMS

Either the SAT or ACT test is required by most colleges and universities for entrance. Typically, 11th grade students take the Preliminary Scholastic Aptitude Test (PSAT) and 12th graders the Scholastic Aptitude Test (SAT) or American College Testing (ACT). Students are encouraged to take these tests a year earlier. The PSAT is an indicator and practice test for the SAT. Tenth grade students will be provided an opportunity to take the PSAT through the College Board's Early Preparation Program. However, it should be noted that National Merit recognition and qualification is based solely on a student's PSAT score earned in the eleventh-grade year. PSAT/SAT resources are available. Contact your counselor for details. A fee may be required.

## CREDIT BY EXAMINATION (No Prior Instruction)

Credit by Examination provides a means for students **with no prior formal instruction** to accelerate. The examinations administered as part of this program provide a way for students who have an exceptional command of the subject or course content to "skip" a course. Students must score a "90" or above on the exam to receive credit. A fee may be required. **All forms must be obtained from and approved by a school counselor.** Examinations are offered in June and July. The registration deadline for the June test is the first Monday in May; for the July test the registration deadline is the first Monday in June. Registration forms are obtained from and returned to the student's counselor.

## CREDIT BY EXAMINATION (With Prior Instruction)

Students who have had prior instruction in a subject or course may use credit by examination to earn credit in any academic course at the secondary level, with the prior approval of the appropriate administrator. Interested students should contact their building counselor to obtain university registration forms and additional information. A fee may be required. **No grade points are awarded for Credit by Exams.**

## DISTANCE LEARNING (online learning)

Students may earn additional high school credits by completing courses through Texas Virtual School Network (TXVSN) along with other online classes. Contact your counselor for more information.

## DISTINGUISHED LEVEL OF ACHIEVEMENT

The items adopted by the State Board of Education as meeting those standards for the Distinguished Level of Achievement are as follows:

- Foundation Program requirements
- 4 credits in math including Algebra II
- 4 credits in science
- At least 1 endorsement

Most of the very best jobs available now and in the future require education and training beyond a high school diploma. Whether you intend to pursue a high-demand, industry workforce credential from a community or technical college or a traditional four-year degree from a university, the choices made in high school will determine your future options. To best prepare yourself now for the transition to post-high school education or quality workforce training, choosing, and taking the right classes is essential. The Distinguished Level of Achievement will ensure the best preparation for your future.

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

- Allow you to compete for automatic admissions eligibility at any Texas public university (percentage requirements vary by university);
- Position you among those –first in line for a TEXAS Grant* to help pay for university tuition and fees; and
- Ensure you are a more competitive applicant at the most selective colleges and universities.

*Advantages of graduating on the Distinguished Level of Achievement Graduation Plan*

- Opportunity to earn an endorsement in an area of interest
- More college and university options
- More – financial aid options
- Better preparation for college-level coursework at community/technical colleges and universities
- Opportunity for immediate enrollment in classes related to your chosen field of study
- Strong foundation to successfully complete an industry workforce credential or college degree

## DUAL CREDIT

Students may enroll in courses that allow them to receive high school and college credit at the same time. A limited number of courses are available. Dual credit courses carry a weighted grade point enabling students to earn a higher-grade point average than with regular courses. Contact your counselor for details.

## GIFTED/TALENTED

At the high school level, gifted and talented (GT) students are served through the Advanced Placement and Pre-Advanced Placement Program in the core content areas. Other advanced placement and pre-advanced placement options are available in Art, Music, and Foreign Language. To be identified as Gifted and Talented, students may be nominated for the program by teachers, counselors, administrators, parents, or themselves. Parents of nominated students are contacted, and screening is conducted once a year. Parents are notified of screening results. Parents of those students who qualify for the GT Program must provide written permission for their children to participate in GT classes.

## GRADE REPORTING

Continuous assessment of student progress is essential to the learning process. Teachers use a variety of methods to determine the degree of mastery students have obtained on specific skills or concepts. Student performance is reported through progress reports and report cards.

Grading Scale

| NUMERICAL | LETTER | POINTS (Regular class) | POINTS (Alief AAC /AP /Dual Credit /Honors) |
|---|---|---|---|
| 90-100 | A | 4 | 5 |
| 80-89 | B | 3 | 4 |
| 75-79 | C | 2 | 3 |
| 70-74 | D | 1 | 2 |
| 69 & below | F | 0 | 0 |

As per the policy change during the Summer of 2024, beginning with the 2024-2025 school year, the elimination of the grade value of D will be phased in for cohorts of students with the Class of 2028 and beyond. Cohorts within the Class of 2025, 2026, and 2027, will complete their tenure of current matriculation through the grading scale established prior to the change in policy.

| NUMERICAL | LETTER | POINTS (Regular class) | POINTS (Alief AAC /AP /Dual Credit /Honors) |
|---|---|---|---|
| 90-100 | A | 4 | 5 |
| 80-89 | B | 3 | 4 |
| 70-79 | C | 2 | 3 |
| Below 70 | F | 0 | 0 |

## NATIONAL COLLEGIATE ATHLETIC ASSOCIATION (NCAA)

Students planning to participate in collegiate athletics must apply to the National Collegiate Athletic Association (NCAA) to be certified as eligible. Additionally, student-athletes must meet all the requirements below to practice, compete, and receive aid in the first year of full-time enrollment. Please consult the NCAA for additional requirements regarding core grade point average and college admission test scores. A portion of the NCAA Division I requirements are outlined below.

*Division I*

If you want to participate in athletics or receive an athletics scholarship during your first year, you must:

- Graduate from high school.
- Earn a minimum 2.3 core-course GPA.
- Earn a combined SAT or ACT sum score that matches your core-course grade-point average and test score sliding scale (for example, a 3.000 core-course grade-point average needs at least 620 SAT).
- Complete 10 core-courses prior to the start of the seventh semester, at least seven in English, math, and science.
- Complete these 16 core courses:
  - -4 years of English
  - -3 years of math (Algebra 1 or higher)
  - -2 years of natural or physical science (including one year of lab science if offered by your high school)
  - -1 year of additional English, math, or natural or physical science
  - -2 years of social science
  - -4 years of extra core courses (from any category above, or foreign language, non-doctrinal religion, or philosophy)

Consult your counselor and coach for more information on Division I, II III and refer to the Guide for the College Bound Student Athlete at www.ncaapublications.com

## TEXAS FIRST DIPLOMA

The Texas First Early High School Completion Program was established by the 87th Texas Legislature to recognize high-achieving students and keep them on a direct track to a postsecondary path in Texas. Eligible students can graduate early with the Distinguished Level of Achievement and earn up to a year in scholarship money to attend select Texas colleges/universities.

Students who graduate two or more semesters before their class receive a two-semester scholarship to a participating college/university. Students who graduate one semester early receive a one semester scholarship to a participating college/university. Students may also be eligible for additional financial aid at many of these colleges/universities.

Graduating with the Texas First Diploma does not guarantee automatic admission for students. Interested students should consult their counselor for guidance on graduating with this diploma. Students who graduate early with a Texas First Diploma may apply to any college or university they choose; however, the scholarship will only apply toward colleges/universities participating in this diploma program. **Note: The scholarship offer will expire at the end of the first academic year following a student's graduation, so students are encouraged to attend college directly after high school.**

Student eligibility requirements are as follows:

- Texas residency
- FAFSA or TASFA completion
- At least 22 high school credits
- Final grade point average equivalent to a 3.0 or higher on a 4.0 scale
- Overall score in at least the 80th percentile on one or more of the following assessments: SAT, ACT, PSAT/NMSQT, TSIA/TSIA2, or GED; or alternatively, a grade point average in the top 10 percent of the student's class.
- Completion of the STAAR EOC exams in English I or II, Algebra I, and Biology, or completion of eligible substitute assessments
- Demonstration of mastery in each subject area of English/Language Arts, Math, Science, Social Studies, and a language other than English.

## ONRAMPS

Through a unique partnership with The University of Texas at Austin, students take specific OnRamps science courses. OnRamps courses are delivered through a dual enrollment model, which means students are enrolled in both a high school course, led by a high school teacher, taught on the campus, and a college course, led by a faculty member or college instructor of record, taught online. At the end of the course, students earning the college credit have the option of accepting the credit and generating a UT Austin transcript.

Students at Elsik, Hastings, and Taylor can apply to take OnRamps Biology, Chemistry, Physics, English IV, Economics, and Government provided they have met specific prerequisites outlined by The University of Texas at Austin. Prerequisites can be found in the Alief ISD Course Description Guide.

## STATE OF TEXAS ASSESSMENTS OF ACADEMIC READINESS (STAAR™)

The **State of Texas Assessments of Academic Readiness (STAAR™)** replaced the Texas Assessment of Knowledge and Skills (TAKS) for students who entered high school in 2011-2012 or later. In high school, students must meet minimum standards on 5 end-of-course (EOC) assessments: English I, English II, Algebra I, Biology, and U.S. History.

## SPECIAL EDUCATION

Special Education provides a full continuum of services to meet the unique needs of each student, such as Accommodations, Modifications, Support Facilitation, and Specialized Support. An Admission, Review and Dismissal Committee (ARDC) determines special education services, placement, and Individualized Education Program (IEP) goals that ensure involvement and progress in the student's grade-level academic standards. Course selections are based on each student's educational needs, and progress in meeting graduation requirements is reviewed annually by the ARDC.

### Eligibility Requirements for Graduation for Students with No Modifications to the General Curriculum

Students who receive special education services must complete the course and credit requirements of the Foundation High School Program. Additionally, the ARD Committee (ARDC) will determine if a student receiving special education services must perform satisfactorily on the required End-of-Course Assessments to meet graduation requirements.

### Eligibility Requirements for Graduation for Students with One or More Courses with Modifications to the General Curriculum

When an ARDC determines that a student requires modifications to the curriculum in one or more required course to meet state credit requirements under the Foundation High School Program, the ARDC will also determine if the student must perform satisfactorily on the required End-of-Course Assessments to meet graduation requirements. The student will also be required to complete their IEP and meet one of the following conditions:

A. Full-time employment and sufficient self-help skills.

B. Demonstrate mastery of specific employability skills and self-help skills that do not require the ongoing support of the school district.

C. Access to services outside the legal responsibility of the school district (employment or education options for which the student has been prepared).

D. No longer meet age eligibility requirements.

### Eligibility Requirements for Earning an Endorsement for Students Who Receive Special Education Services

In 2019, the 86th Legislature passed HB165, which allows a student who has completed the required courses and credits on the Foundation High School Program, including additional credits in math, science, electives, and the courses required for the endorsement with or without modifications* to the curriculum, to earn an endorsement. *When an ARD committee determines that modifications to the curriculum are required, the ARD committee must also ensure that the curriculum remains sufficiently rigorous, for the student to retain eligibility for an endorsement. Additionally, HB 165 states that the student's ARDC shall determine whether the student is required to achieve satisfactory performance on any end-of-course assessment to earn an endorsement on the student's transcript.

*Graduation is determined by a student's ARDC.*

## TUTORIAL PROGRAM

The district has tutorial programs available in each school. The programs are designed for students having academic difficulties in the four core academic areas - math, science, English, and social studies. Check with your school for tutorial times.

# CAREER AND TECHNICAL EDUCATION INFORMATION

## Understanding Career and Technical Education (CTE)

Career and Technical Education (CTE) courses support the Business & Industry, Public Service, STEM, and Multidisciplinary endorsement categories for the Foundation High School Program + Endorsement graduation plan. Alief ISD offers over 100 unique CTE courses grades 7 through 12. The following definitions may assist you in understanding how CTE courses and programs of study fit within the graduation plan.

**Endorsements**

Endorsements consist of a related series of courses that are grouped together by interest or content. They provide students the opportunity to deeply explore a subject area. There are 6 endorsements offered in Alief.

- Arts & Humanities
- Business and Industry
- Multi-Disciplinary
- Human Service
- Public Service
- STEM

**Career Clusters**

A career cluster is a group of careers that share common themes. Alief offers 11 of the Texas identified career clusters which aligned with the 6 endorsement categories.

- Agriculture, Food & Natural Resources
- Architecture & Construction
- Arts A/V Technology & Communication
- Transportation & Distribution & Logistics
- Health Science
- Science, Technology, Engineering & Mathematics (STEM)
- * Hospitality & Tourism
- * Information Technology
- * Manufacturing
- * Business Marketing & Finance
- * Education and Training

**Program of Study**

A Program of Study is a specified series of classes taken in a specific order. Programs of study all begin with a Principle/Introduction course and move on to more occupation specific training and certification classes. Alief ISD currently has 27 programs of study with 40 attached Industry based certifications.

**Program of Study offered in Alief ISD**

*Animal Science
*Plant Science
*Carpentry
*Electrical Technology
*Architecture Drafting & Design
*Graphic Design & Interactive Media
*Digital Communications
*Business Management
*Accounting & Financial Service
*Programming & Software Development
*Engineering Foundations
*Exercise Science, Wellness, & Restoration
*Cosmetology and Personal Care Service
*Education and Training
*Healthcare Therapeutics
*Healthcare Diagnostics
*Automotive and Collision Repair
*Culinary Arts
*Networking Systems
*Welding
*Advanced Manufacturing
*Renewable Energy
*Drone (Unmanned Flight)

**Courses**

Students take courses under the chosen programs of study to complete the Endorsement and Industry based certification.

**What is Work-Based Learning (WBL) and why should I consider these classes?**
Work Based Learning involves real-world work experience and is considered capstone activities for students who have taken a coherent sequence of courses within their chosen career field. This learning can take place through Job Shadowing (live or virtual), an Internship, a Pre-Employment Lab or a Career Preparation or Practicum COOP program. COOP programs allow students to earn credit and wages through employment. Internship programs and pre-employment labs allow students to earn credit and non-paid work experiences. Pre-Employment and Internship Programs housed off campus will have transportation provided by Alief ISD.

**How do I enroll in a Work-Based Learning program?** Participation in these programs is determined by successful completion of all pre-requisite courses and space availability as determined by partnership agreements. Students wishing to participate in these capstone programs will need to meet with the instructor for other course requirements such as age, grades, attendance and discipline record requirements and parent/student contract. Interested students should contact their counselor for more information.

| Internship Programs | Career Preparation Programs (COOP) | Pre-Employment Lab Programs |
|---|---|---|
| Health Science – Clinical Rotation<br><br>Practicum in Health Science-Pharmacy Technician<br><br>Practicum in Education and Training | Extended Practicum in Business Management<br><br>Extended Career Preparation | Automotive Technology – 5 courses<br><br>Culinary Arts – 7 courses<br><br>Welding – 4 courses<br><br>Practicum in Health Science – Patient Care Tech<br><br>Practicum in Health Science – Exercise Science, Wellness, and Restoration<br><br>Practicum in AFNR – Vet Tech<br><br>Trio Practicum in Construction-Electrical Tech |

## Industry Certification and Qualifications

Students enrolled in specific CTE courses can earn industry-based certifications. The current opportunities offered as part of students specific coursework tied to the courses they take include: Adobe Certified Associate, American Welding Society (AWS), Automotive Service Excellence (ASE) Entry Level, Certified Insurance Service Representative, Patient Care Technician, Pharmacy Technician, Certified Personal Trainer, Certified Veterinary Assistant, CompTIA, FAA Remote Drone Pilot, Education Aide I, Microsoft Office Specialist / Expert, NCCER Core, QuickBooks Certified User, SERV Safe Kitchen Manager, MSSC Certified Production Technician (CPT) and TX State Floral. In addition to these IBC, students can also earn certifications such as SERV Safe Food Handler and Cardiopulmonary Resuscitation CPR.

# Alief ISD CTE Certifications 2025-26

| Endorsement | Cluster | Program Of Study | Certification |
|---|---|---|---|
| Business and Industry | Agriculture, Food, and Natural Resources | Animal Science | • Certified Vet Assistant<br>• Elanco Vet Medical App<br>• Elanco Fundamentals of Animal Science |
| | | Environmental and Natural Resources | • Ducks Unlimited Ecology Conservation and Management |
| | | Plant Science | • TX State Florist's Association Level I Certification<br>• TX State Florist's Association Level II Certification<br>• TX State Florist's Association Knowledge Based Floral Certification |
| | Architecture And Construction | Architecture Design | • Level 1 Certificate in Drafting from HCC |
| | | Construction | • NCCER Core |
| | | Electrical Technology | • Electrical Technology Level 1 Certificate |
| | Arts, A/V Technology and Communications | Design & Multimedia | • Adobe CP in Visual Effects and Motion<br>• Autodesk Associate (Certified User) 3ds MAX<br>• Adobe Certified Professional in Visual Design Using Adobe Photoshop |
| | | Digital Communications | • Adobe Certified Professional in Digital Design Using Adobe Premier Pro<br>• Adobe Certified Professional in Graphic Design & Illustration using Adobe Premier Pro<br>• Adobe Certified Professional in Visual Design Using Photoshop<br>• Adobe Certified Professional in Graphic Design & Illustration (Illustrator) |
| | Business and Industry | Accounting and Financial Services | • Quickbooks<br>• Certified Insurance Service Representative |
| | | Business Management | • MOS Word Expert and Excel Expert |
| | | Marketing and Sales | • Google Analytics<br>• Customer Service and Sales: Certified Specialist |
| | Hospitality and Tourism | Culinary Arts | • ServSafe Manager |
| | | Lodging and Resort Mgt. | • Nocti |
| Business and Industry | Information Technology | Networking -Cybersecurity | • IT Specialist-Networking<br>• CompTIA Network +<br>• CompTIA Security+<br>• CompTIA – A+ |
| | Manufacturing | Welding | • AWS D1.1 Structural Steel and/or AWS D9.1 Sheet Metal Welding |
| | Transportation, Distribution, and Logistics | Automotive | • ASE Refrigerant Recovery and Recycling (Seniors Only) |
| Public Service | Education and Training | Early Learning | • Educational Aid 1 Certification |
| | | Teaching and Training | • Educational Aid 1 Certification |
| | Health Science | Exercise Science and Wellness | • Certified Personal Trainer (ACE Fitness) |
| | | Healthcare Therapeutics | • Certified Nurse Aide (CNA)<br>• Certified Patient Care Technician<br>• Certified Pharmacy Technician<br>• Certified EKG Technician<br>• Phlebotomy Certification |
| STEM | Science , Technology , Engineering, and Math (STEM) | Engineering – Aviation | • FAA Part 107 Remote Drone Pilot<br>• Auto Cad Inventor |
| | | Engineering | • Autodesk Associate (Certified User) Inventor for Mechanics |
| | | Engineering – Process Technology | • Inventor<br>• Autocad |
| | | Manufacturing Engineering Technology | • SACA |

## AGRICULTURE, FOOD AND NATURAL RESOURCES

### Principles of Agriculture, Food, and Natural Resources

Prerequisite(s): Credit: One (state)
A. Grades 9-10

This introductory level course will allow a student with an interest in the field of agriculture the opportunity to develop knowledge and skills regarding career opportunities, personal development, globalization, industry standards, details, practices, and related expectations. Students will explore all aspects of the AFNR career cluster.

## Animal Science Program of Study

### Small Animal Management

Prerequisite(s): Credit: One-half (state)
A. Grades 10-11
B. Principles of Agriculture, Food & Natural Resources

In this course students will take the next step from Principles of Agriculture, Food and Natural Resources in developing knowledge and skills specifically related to animal systems and the workplace. Students will learn about career opportunities, entry requirements, and industry expectations. Animal species to be addressed in this course may include, but are not limited to, small mammals, amphibians, reptiles, avian, dogs, and cats.

### Equine Science

Prerequisite(s): Credit: One-half (state)
A. Grades 10-11
B. Principles of Agriculture, Food & Natural Resources

To be prepared for careers in the field of animal science, students need to enhance academic knowledge and skills, acquire knowledge and skills related to animal systems, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need opportunities to learn, reinforce, apply, and transfer their knowledge and skills in a variety of settings. Suggested animals which may be included during study include, but are not limited to, horses, donkeys, and mules.

### Livestock Production

Prerequisite(s): Credit: One (state)
A. Grades 11-12
B. Principles of Agriculture, Food & Natural Resources

Have an interest in animals? This course is the logical next step that reaches in and explores the livestock portion of the Principles of Agriculture, Food and Natural Resources course. Students will learn about career opportunities, entry requirements, and industry expectations. Animal species to be addressed in this course may include, but are not limited to, beef cattle, swine, sheep, goats, and poultry.

### Veterinary Medical Applications with Lab

Prerequisite(s):
A. Grades 11-12 Credit: Two (state)
B. Equine Science and Small Animal Management, or Livestock Production.

This course covers topics relating to veterinary practices, including practices for large and small animal species. Students will develop knowledge and skills related to animal systems and the workplace. Students will learn about career opportunities, entry requirements, and industry expectations.

### Practicum in Agriculture—Vet Assistant

Prerequisite(s):
A. Grade 12 Credit: Two (state)
B. A minimum of one credit from the courses in the Agriculture, Food, and Natural Resources Career Cluster, and two credits from Veterinary Medical Applications with Lab.

The practicum course is a paid or unpaid capstone experience for students participating in a coherent sequence of career and technical education courses in the Agriculture, Food, and Natural Resources Career Cluster. Practicum in Agriculture, Food, and Natural Resources is designed to give students supervised practical application of knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experiences such as employment, independent study, internships, assistantships, mentorships, or laboratories.

## Plant Science Program of Study

### Landscape Design Management

Prerequisite(s):
A. Grades 10-12 Credit: One-half (state)

Students will have the opportunity to study the art of landscape design as well as develop an understanding of landscape and turfgrass management techniques and practices. Students will apply their knowledge of landscape design and turfgrass management in various landscaping projects around the campus and district. Career opportunities, entry requirements, and industry expectations will be studied in greater depth.

### Turf Grass Management

Prerequisite(s):
A. Grades 10-12 Credit: One-half (state)

Students will develop an understanding of turf grass management techniques and practices. Students will acquire technical skills related to horticultural systems and the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations.

### Horticulture Science

Prerequisite(s):
A. Grades 11-12 Credit: One (state)

Students will develop an understanding of common horticultural management practices as they relate to food and ornamental plant production. Included in their study will be what it takes to grow a plant from seed, soil types and conditions, soil nutrition, greenhouses, safe use of pesticides and herbicides. Career opportunities, entry requirements, and industry expectations will be studied in greater depth. This course will be very interactive to allow students to do a variety of experiments both in the greenhouse and around the campus.

### Floral Design

Prerequisite(s):
A. Grades 11-12 Credit: One (state)

This course develops students' ability to identify and demonstrate the principles and techniques related to floral design as well as develop an understanding of the management of floral enterprises. Students will learn about floral arrangement, foliage, and other related materials. Students will explore career opportunities, leadership, and personal skill development. Upon successful completion of this course students will have the opportunity to sit for the Texas Floral Design Exam to become a certified floral designer. **Note: This course satisfies the fine arts graduation requirement for students in this plan of study.**

### Advanced Floral Design

Prerequisite(s):
A. Grade 11-12 Credit: One (state)

B. Successful completion of Floral Design

This course will build upon the knowledge and skills learned in the first level, Floral Design. Upon successful completion of this course students will have the opportunity to sit for the second portion of the Texas Floral Design Exam.

### Advanced Ag – PBR

Prerequisite(s):
A. Grade 12 Credit: One (state)
B. Successful completion of a minimum of 3 previous Agriculture courses and CTE approval.

This course is designed for the fourth year AAFNR student to complete a pre-approved Project Based Research pertaining to their program of study while enrolled in a class.

### Practicum in AFFNR

Prerequisite(s):
A. Grade 12 Credit: Two (state)
B. Successful completion of a minimum of 3 previous Agriculture courses and CTE approval.

This pre-employment course will allow a fourth year AFFNR student the opportunity to continue working towards completion of their chosen program of study. The course could consist of non-paid internship, job-shadowing, research, etc. Prior approval by the CTE department is required prior to enrollment.

## ARCHITECTURE AND CONSTRUCTION

### Architectural Design Program of Study

### Principles of Architecture

Prerequisite(s):
A. Grades 9-10 Credit: One (state)

This course provides an overview of the various fields of architecture, interior design, and construction management. Classroom studies include topics such as safety, work ethics, communication, information technology applications, systems, health, environment, leadership, teamwork, ethical and legal responsibility, employability, and career development and include skills such as problem solving, critical thinking, and reading technical drawings.

### Architectural Design I

Prerequisite(s):
A. Grades 10-11 Credit: One (state)

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. Students will gain 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

Prerequisite(s):
A. Grades 11-12 Credit: Two (state)
B. Successful completion of Architectural Design
C. List Driven – Limited Enrollment

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. This course covers design, design history, techniques, and tools related to the production of drawings, renderings, and scaled models for commercial or residential

architectural purposes. **Note: Students will have the opportunity to participate in dual credit with Houston Community College.**

### Practicum in Architecture Design

Prerequisite(s):
A. Grade 12 Credit: Two (state)
B. Successful completion of Architectural Design II
C. List Driven – Limited Enrollment

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. **Note: Students will have the opportunity to participate in dual credit with Houston Community College.**

## Carpentry Program of Study

### Principles of Construction

Prerequisite(s):
A. Grades 9-10 Credit: One (state)

This course 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

Prerequisite(s):
A. Grades 10-11 Credit: Two (state)
B. Principles of Construction or Principles of Architecture

Students will gain knowledge and skills needed to enter the workforce as carpenters or building maintenance supervisors or to prepare for postsecondary degrees in construction management, architecture, or engineering. Students will acquire knowledge and skills in safety, tool usage, building materials, codes, and framing.

### Construction Technology II

Prerequisite(s):
A. Grades 11-12 Credit: Two (state)
B. Successful completion of Construction Technology
C. List Driven – Limited Enrollment

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

### Mill and Cabinetmaking

Prerequisite(s):
A. Grades 11-12 Credit: Two (state)
B. Successful completion of Construction Technology
C. List Driven – Limited Enrollment

This class provides knowledge and skills specific to those needed to enter the workforce in millwork and cabinet manufacturing and installation. The student may also apply these skills to professions in carpentry or building maintenance supervision or use the skills as a foundation for a postsecondary degree in construction management, architecture, or engineering. Students acquire knowledge and skills in cabinet design, tool usage, jointing methods, finishes, and numerical and computer control production methods.

### Practicum in Construction Technology

Prerequisite(s):
A. Grade 12 Credit: Two (state)
B. Successful completion of Construction Technology
C. List Driven – Limited Enrollment

This course is an occupationally specific course designed to provide classroom technical instruction combined with on-the-job-training experiences. Safety and career opportunities are included in addition to work ethics and job-related study in the classroom.

## Electrical Program of Study

### Electrical Technology I

Prerequisite(s):
A. Grades 10-11 Credit: One (state)
B. Principles of Construction
C. Course must be taken in coherently with Employability Skills for Construction

Students will gain knowledge and skills needed to enter the workforce as an electrician or building maintenance supervisor, prepare for a postsecondary degree in a specified field of construction or construction management, or pursue an approved apprenticeship program. Students will acquire knowledge and skills in safety, electrical theory, tools, codes, installation of electrical equipment and the reading of electrical drawings, schematics, and specifications. Must be taken coherently with Employability Skills for Construction.

### Employability Skills for Construction

Prerequisite(s):
A. Grades 10-11 Credit: One (state)
B. Course must be taken in coherently with Electrical Technology I.
C. Course is required to be blocked with Electrical Technology I but does not count towards a program of study.

### TRIO Electrical Technology II

Prerequisite(s):
A. Grades 11-12 Credit: Two (state) Dual Credit
B. Successful completion of Electrical Technology I and Employability Skills for Construction.

This course is part of the partnership program with TRIO Electric where students will have the opportunity to participate in dual credit courses while in high school. Coursework will all be related to the Level 1 certificate in Electrical Technology. Students will gain advanced knowledge and skills needed to enter the workforce as an electrician. Students will gain a working understanding of safety, electrical theory, tools, codes, installation of electrical equipment, alternating current and direct current motors, conductor installation, installation of electrical services, and electric lighting installation.

### TRIO Practicum in Construction – Electrical Technology

Prerequisite(s):
A. Grades 11-12 Credit: Two (state) Dual Credit
B. Successful completion of TRIO Electrical Technology II

This course is an occupationally specific course designed to provide technical instruction combined with on-the-job-training experiences. Safety and career opportunities are included in addition to work ethics and job-related study both in the classroom and in the field of Electoral Technology.

### Principles of Arts, A/V Technology & Communications

Prerequisite(s):
A. Grades: 9-10 Credit: One (state)

This introductory level course will foster a student's creativity with the arts, computers and technology applications. Students will also build skills in both oral and written communication. Upon successful completion students will be ready to further explore their interests in this exciting career cluster, career opportunities, entry requirements, and industry expectations will be studied in greater depth.

### Audio/Video Production I

Prerequisite(s):
A. Grade 10 Credit: One (state)
B. Principles of Arts, A/V Technology and Communication

Students will develop technical knowledge and skills needed for success in the Arts, Audio/video Technology, and Communications. Students will be expected to develop an understanding of the industry with a focus on pre-production, production, and post-production audio and video products.

### Audio/video Production II with Lab

Prerequisite(s):
A. Grades 11-12 Credit: Two (state)
B. Audio/Video Production I

Building upon the concepts taught in Audio/Video Production, in addition to developing advanced knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications, students will be expected to develop an advanced understanding of the industry with a focus on pre-production, production, and post-production.

### Practicum in Audio Video Production

Prerequisite(s):
A. Grade 12 Credit: Two (state)
B. Successful completion of Audio/Video Production II with Lab

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

## Design & Multimedia Program of Study- Video Game Design

### Video Game Design

Prerequisite(s):
A. Grades: 9-10 Credit: One (state)

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

### Video Game Programming

Prerequisite(s):
A. Grades: 10-11 Credit: One (state)
B. Video Game Design

Video Game Programming is a 100% software driven course. In this project-based course, students will learn 3D modeling and rendering techniques. In addition, students will get an introduction to the game engine and complete basic programming concepts.

### Advanced Video Game Programming

Prerequisite(s):
A. Grades: 11-12 Credit: One (state)
B. Video Game Programming

Students will continue to build on the game engine and basic programming concepts. Using 3D game development programs, students will have exposure to basic programming languages, 3D modeling, image manipulation and design concepts. In this course students will be expected to communicate and collaborate on group-based projects.

### Practicum in Game Design (E)

Prerequisite(s):
A. Grade: 12 Credit: Two (state)
B. Two courses from the Program of Study

Careers in video game programming span all aspects of the audio/video communications industry. Building upon the concepts taught in Advanced Video Game Programming students will continue developing advanced technical knowledge and skills needed for success in the Design and Multimedia Program of Study, students will be expected to develop an increasing understanding of the industry. Instruction may be delivered through lab-based classroom experiences or career preparation opportunities.

### Commercial Photography I

Prerequisite(s):
A. Grade: 10 Credit: One (state)
B. Recommended prerequisite(s): Principles of Arts, A/V Tech & Communications

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

### Commercial Photography II with Lab

Prerequisite(s):
A. Grades 11-12 Credit: Two (state)
B. Commercial Photography I

After successful completion of the Commercial Photography course, students who want to explore further to improve their skills should sign up for Advanced CP. Students will be expected to develop an advanced technical understanding of the commercial photography industry with a focus on producing, promoting, and presenting professional quality photographs.

### Practicum in Commercial Photography

Prerequisite(s):
A. Grade: 12 Credit: Two (state)
B. Commercial Photography II with Lab

Careers in graphic design and illustration span all aspects of the advertising and visual communications industry. Within this context, in addition to developing technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications, students will be expected to develop a technical understanding of the industry with a focus on skill proficiency. Instruction may be delivered through lab-based classroom experiences or career preparation opportunities.

### Fashion Design I

Prerequisite(s):
A. Grades 10-11 Credit: One (state)
B. Principles of Arts, Audio/Video Technology and Communications

Careers in fashion span all aspects of the textile and apparel industries. Within this context, in addition to developing technical knowledge and skills needed for success in the Arts, Audio/video Technology, and Communication, students will be expected to develop an understanding of the fashion industry with an emphasis on design and construction.

### Fashion Design II with Lab

Prerequisite(s):
A. Grades 11-12 Credit: Two (state)
B. Fashion Design I

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

### Practicum in Fashion Design - E

Prerequisite(s):
A. Grade: 12 Credit: Two (state)
B. Fashion Design II with Lab

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

### Graphic Design and Illustration I

Prerequisite(s):
A. Grades 10-11 Credit: One (state)
B. Principles of Arts, Audio/Video Technology, and Communications.

Careers in graphic design and illustration span all aspects of the advertising and visual communications industries. Within this context, in addition to developing knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications Career Cluster, students will be expected to develop an understanding of the industry with a focus on fundamental elements and principles of visual art and design.

### Graphic Design and Illustration II with Lab

Prerequisite(s):
A. Grades 11-12 Credit: Two (state)
B. Graphic Design and Illustration
C. Recommended co-requisite: Graphic Design and Illustration II.

Careers in graphic design and illustration span all aspects of the advertising and visual communications industries. Within this context, in addition to developing advanced technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications, students will be expected to develop an advanced understanding of the industry with a focus on mastery of content knowledge and skills.

### Practicum in Graphic Design
Prerequisite(s):
A. Grade: 12 Credit: Two (state)

Careers in graphic design and illustration span all aspects of the advertising and visual communications industry. Within this context, in addition to developing technical knowledge and skills needed for success in the Arts, Audio/Video Technology, and Communications, students will be expected to develop a technical understanding of the industry with a focus on skill proficiency. Instruction may be delivered through lab-based classroom experiences or career preparation opportunities.

### Career Preparation
Prerequisite(s):
A. Grade 12 Credit: Three (state)
B. Successful completion of a coherent sequence of courses within the Career & Technical Education offerings

Want to begin gaining work experience in the Program of Study area you have been studying? This capstone course will allow students from all Career and Technical Education Programs of Study who have completed a coherent sequence of courses to begin gaining real world experience in a cooperative education learning environment. The course is designed to give students supervised practical application of previously studied knowledge and skills. Students will be required to have the skills necessary to secure a job in an approved training station; work a minimum of 15 hours per week; and provide their own reliable transportation. This course is List Driven – Limited Enrollment.

## BUSINESS, MARKETING AND FINANCE

### Principles of Business, Marketing and Finance
Prerequisite(s):
A. Grades 9-10 Credit: One (state)

In this introductory level course students gain knowledge and skills in economies and private enterprise systems, the impact of global business, marketing of goods and services, advertising, and product pricing. Students analyze the sales process and financial management principles. This course serves as the entry point into three different clusters: Business Management and Administration; Finance; and Marketing, Sales, and Service.

## Business Management Program of Study

### Business Law
Prerequisite(s):
A. Grade 10 Credit: One (state)
B. Principles of Business, Marketing & Finance

Business Law is designed for students to analyze various aspects of the legal environment, including ethics, the judicial system, contracts, personal property, sales, negotiable instruments, agency and employment, business organization, risk management, and real property.

### Business Information Management I
Prerequisite(s):
A. Grades 9-11 Credit: One (state)
***This course is a recommended prerequisite(s) to many higher-level computer related Career & Technical Education courses.***

In Business Information Management I, students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and make a successful transition to the workforce and postsecondary education. Students apply technical skills to address business applications of emerging

technologies, create word-processing documents, develop a spreadsheet, formulate a database, and make an electronic presentation using appropriate software.

### Business Information Management II

Prerequisite(s):
A. Grade 10 Credit: One (state)
B. Business Information Management I

In Business Information Management II, students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and make a successful transition to the workforce or postsecondary education. Students apply technical skills to address business applications of emerging technologies, create complex word-processing documents, develop sophisticated spreadsheets using charts and graphs, and make an electronic presentation using appropriate multimedia software.

### Business Management

Prerequisite(s):
A. Grades 11-12 Credit: One (state)
B. Principles of Business, Marketing & Finance

Do you have what it takes to run a business? Learn the ins and outs of staffing issues. Who gets hired and who gets fired? 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.

## Accounting & Financial Services Program of Study

### Accounting I

Prerequisite(s):
A. Grades 10-11 Credit : One (state)
B. Principles of Business, Marketing and Finance

In Accounting I, students will investigate the field of accounting, including how it is impacted by industry standards as well as economic, financial, technological, international, social, legal, and ethical factors. Students will reflect on this knowledge as they engage in the process of recording, classifying, summarizing, analyzing, and communicating accounting information. Students will formulate and interpret financial information for use in management decision making.

### Accounting II

Prerequisite(s):
A. Grades 11-12 Credit : One (state)
B. Successful completion of Accounting I

In Accounting II, students will continue the investigation of the field of accounting, including how it is impacted by industry standards as well as economic, financial, technological, international, social, legal, and ethical factors. Students will reflect on this knowledge as they engage in various managerial, financial, and operational accounting activities. Students will formulate, interpret, and communicate financial information for use in management decision making. Students will use equations, graphical representations, accounting tools, spreadsheet software, and accounting systems in real-world situations to maintain, monitor, control, and plan the use of financial resources.

### Insurance Operations

Prerequisite(s):
A. Grades 11-12 Credit : One (state)
B. Successful completion of Principles of Business, Marketing & Finance

Students will understand the laws and regulations to manage business operations and transactions in the insurance industry.

### Extended Practicum in Business Management

Prerequisite(s):
A. Grade 11-12 (List Driven – Limited Enrollment) Credit: Three (state)
B. Successful completion of a coherent sequence of courses in the Business Management or Accounting & Financial Services Program of Study
C. Recommended prerequisite(s): Business Management or Business Information Management II

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

## Marketing & Sales Program of Study

### Fashion Marketing

Prerequisite(s):
A. Grades: 10-11 Credit: One-half (state)
B. Principles of Business, Marketing, and Finance

Fashion Marketing is designed to provide students with the knowledge of the various business functions in the fashion industry. This class provides students with a working knowledge of promotion, textiles, merchandising, mathematics, selling, visual merchandising, and career opportunities.

### Sports and Entertainment Marketing

Prerequisite(s):
A. Grades: 10-11 Credit: One-half (state)
B. Principles of Business, Marketing, and Finance

Sports and Entertainment Marketing will provide students with a thorough understanding of the marketing concepts and theories that apply to sports and entertainment. The areas this course will cover include basic marketing concepts, publicity, sponsorship, endorsements, licensing, branding, event marketing, promotions, and sports and entertainment marketing strategies.

### Advertising

Prerequisite(s):
A. Grades: 11-12 Credit: One-half (state)
B. Principles of Business, Marketing, and Finance.

Advertising is designed as a comprehensive introduction to the principles and practices of advertising. Students will gain knowledge of techniques used in current advertising, including print, broadcast, and digital media. The course explores the social, cultural, ethical, and legal issues of advertising, historical influences, strategies, media decision processes as well as integrated marketing communications, and careers in advertising and sales promotion. The course provides an overview of how communication tools can be used to reach target audiences and increase consumer knowledge.

### Virtual Business

Prerequisite(s):
A. Grades 10-11 Credit: One-half (state)
B. Principles of Business, Marketing & Finance

Virtual Business is designed for students to start a virtual business by creating a web presence, conducting online and off-line marketing, examining contracts appropriate for an online business, and demonstrating project-management skills. Students will also demonstrate bookkeeping skills for a virtual business, maintain business records, and understand legal issues associated with a virtual business.

### Social Media Marketing

Prerequisite(s):
A. Grades 11-12 Credit: One-half (state)
B. Principles of Business, Marketing, and Finance plus two other courses from the Marketing & Sales Program of Study

Social Media Marketing is designed to look at the rise of social media and how marketers are integrating social media tools into their overall marketing strategy. The course will investigate how the marketing community measures success in the new world of social media. Students will manage a social media presence for an organization, understand techniques for gaining customer and consumer buy-in to achieve marketing goals, and properly select social media platforms to engage consumer buy-in to achieve marketing goals, and properly select social media platforms to engage consumers and monitor and measure the results of these efforts.

### Retail Management

Prerequisite(s):
A. Grades 11-12 Credit: One (state)
B. Principles of Business, Marketing, and Finance plus two other courses from the Marketing Program of Study

Retail Management is designed to show how to drive sales through innovative programming and strategic planning. This program of study will allow students to explore the world of retail management through a variety of components including product development, customer intercepts, package engineering, and organizational development.

### Advanced Marketing

Prerequisite(s):
A. Grade 12 Credit: Two (state)
B. Principles of Business, Marketing, and Finance plus two other courses from the Marketing & Sales Program of Study
C. List Driven – Limited Enrollment.

In Advanced Marketing, students will gain knowledge and skills that help them become proficient in one or more of the marketing functional areas. Students will illustrate appropriate management and research skills to solve problems related to marketing. This course covers technology, communication, and customer-service skills.

### Practicum in Marketing

Prerequisite(s):
A. Grade 12 Credit: Two (state)
B. Principles of Business, Marketing, and Finance plus two other courses from the Marketing & Sales Program of Study
C. List Driven – Limited Enrollment.

Students will participate in a series of dynamic activities that focus on the customer to generate a profitable exchange. Students will gain knowledge and skills that help them to be proficient in one or more of the marketing functional areas associated with distribution, financing, marketing information management, pricing, product planning, promotion, purchasing, risk management, and selling skills. Students will integrate skills from academic subjects, information technology, interpersonal communication, and management training to make responsible decisions.

### Career Preparation

Prerequisite(s):
A. Grade 12 Credit: Three (state)

B. Successful completion of a coherent sequence of courses within the Career & Technical Education offerings

Want to begin gaining work experience in the Program of Study area you have been studying? This capstone course will allow students from all Career and Technical Education Programs of Study who have completed a coherent sequence of courses to begin gaining real world experience in a cooperative education learning environment. The course is designed to give students supervised practical application of previously studied knowledge and skills. Students will be required to have the skills necessary to secure a job in an approved training station; work a minimum of 15 hours per week; and provide their own reliable transportation. This course is List Driven – Limited Enrollment.

## EDUCATION AND TRAINING

### Principles of Education and Training

Prerequisite(s):
A. Grades: 9-10 Credit: One (state)

Principles of Education and Training is designed to introduce learners to the various careers available within the Education and Training Program of Study. Students use self-knowledge as well as educational and career information to analyze various careers within Education and Training. Students will develop a graduation plan that leads to a specific career choice in the student's interest area.

### Child Development

Prerequisite(s):
A. Grades 10-11 Credit : One (state)
B. Principles of Human Services or Principles of Education and Training

Child Development is a technical laboratory course that 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.

## Teaching & Training Program of Study

### Instructional Practices

Prerequisite(s):
A. Grade 11-12 Credit: Two (state)
B. Principles of Education and Training and Child Development

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

### Practicum in Education and Training

Prerequisite(s):
A. Grade 12 Credit: Two (state)
B. Instructional Practices and Principles of Education and Training or Human Growth and Development.
C. List Driven – Limited Enrollment

Want some actual hands-on experiences working with children? Is teaching right for you? This yearlong capstone course will offer students the chance to shadow and assist teachers in an unpaid internship setting. Students will work with classroom teachers at schools within the district to understand effective instructional techniques

for all learners. Prior to enrollment students will need to have successfully completed the Instructional Practice in Education and Training course.

## ENGLISH LANGUAGE ARTS

### English I
Prerequisite(s):
A. Grade 9 Credit: One (state)

English I students increase and refine their communication skills through writing, speaking/listening and visual representations. Students read extensively from multiple genres and interpret the influence of historical context in the literature. Students analyze literary elements and explore the author's craft in both literary and expository tests. Preparation for EOC Reading and Writing Grade 9 is included in the course.

### Alief AAC English I
Prerequisite(s):
A. Grade 9 Credit: One (state)
B. Contract

Alief AAC English I is a more rigorous and comprehensive study of English I TEKS, including much more extensive reading and writing and an introduction to literary analysis. Initial preparation for AP English begins in this course. More in-depth analysis of literary elements and author's craft are required in the course. A summer reading component is required. Preparation for EOC Reading and Writing Grade 9 is included in the course.

### English II
Prerequisite(s):
A. Grade 10 Credit: One (state)

English II students increase and refine their communication skills through extensive use of the writing process and use writing as a tool for learning. Students read extensively in multiple genres from world literature and analyze the effects of historical context on literary works. Students continue to analyze literary elements and explore author's craft in both literary and expository texts. Students present oral presentations and interpret visual representations. Preparation for EOC Reading and Writing Grade 10 is included in the course.

### Alief AAC English II
Prerequisite(s):
A. Grade 10 Credit: One (state)
B. Contract

Alief AAC English II is a more rigorous and comprehensive study of the English II TEKS. Preparation for AP English III and AP English IV are included, especially through language and literature analyses, critiques, and analyses of author's craft in both literary and expository texts. A summer reading component is required. Preparation for EOC Reading and Writing Grade 10 is included in the course.

### English I for Speakers of Other Languages
### English II for Speakers of Other Languages

Placement Criteria: Students qualify through testing and recommendation by the campus LPAC.

Credit: One (1) state credit per course (These courses may be substituted for English I and English II for immigrant students with limited English proficiency).

The course accelerates the acquisition of English and meets the Texas Essential Knowledge and Skills (TEKS) for English Language Arts. Emphasis is placed on communicating in English both orally and in writing, active listening, reading comprehension, and vocabulary development. This course is offered at the student's level of English language proficiency.

## English as a Second Language (ESL) For Newcomers

Placement Criteria: Students qualify through testing and recommendation by the campus LPAC.
Credit: One (1) local elective credit

This course is designed for students at the beginning level of English language proficiency with limited or interrupted schooling. Emphasis is placed on acquiring English and basic literacy skills including listening, speaking, reading, and writing.

## English III

Prerequisite(s):
A. Grade 11 Credit: One (state)
B. Two credits of English

English III students are expected to produce and publish all forms of writing, including compositions, business communications, abstracts, and resumes. Students read extensively from American and world literature and interpret the influences of historical context on literary works. Students analyze literary elements and author's craft in literary and expository texts. Students use writing as a tool for learning through inquiry and research and present and evaluate oral presentations.

## AP English III

Prerequisite(s):
A. Grade 11 Credit: One (state)
B. Two credits of English
C. Contract

AP English III provides a differentiated curriculum that is much more rigorous and academically challenging than English III. The course follows curriculum recommendations of the College Board as preparation for the AP English Language and Composition exam through extensive language and literary analyses and critiques. A summer reading component is required.

## English III Dual Credit- Composition

Prerequisite(s):
A. Grade 11 Credit: One (state)
B. Two credits of English (English I, English II)
C. Contract
Note: This course awards a total of 6 college credits for ENGL 1301 & ENGL 1302

English III Dual Credit students should expect an intensive study of and practice in writing processes, from invention and researching to drafting, revising, and editing, both individually and collaboratively. Emphasis on effective rhetorical choices, including audience, purpose, arrangement, and style. Focus on writing the academic essay as a vehicle for learning, communicating, and critical analysis. In semester two, students will practice strategies and techniques for developing research-based expository and persuasive texts. Emphasis on effective and ethical rhetorical inquiry, including primary and secondary research methods; critical reading of verbal, visual, and multimedia texts; systematic evaluation, synthesis, and documentation of information sources; and critical thinking about evidence and conclusions.

## English IV

Prerequisite(s):
A. Grade 12 Credit: One (state)
B. Three credits of English

English IV students compose and publish a variety of forms of written compositions, including business, personal, and literary. Students read extensively in multiple genres from British and other world literature and interpret the influences of historical context on literary works. Students continue to analyze literary elements

and author's craft in both literary and expository texts and use writing as a tool for inquiry and research. Students use oral and visual representations to communicate with others.

### AP English IV

Prerequisite(s):
A. Grade 12 Credit: One (state)
B. Three credits of English
C. Contract

AP English IV provides a differentiated curriculum that is much more rigorous and academically challenging than English IV. The course follows curriculum recommendations of the College Board as preparation for the AP English Literature and Composition exam through extensive reading and literary analyses and critiques. A summer reading component is required.

### English IV Dual Credit- Composition

Prerequisite(s):
A. Grade 12 Credit: One (state)
B. Three credits of English (English I, English II, English III)
C. Contract
Note: This course awards a total of 6 college credits for ENGL 1301 & ENGL 1302

English IV Dual Credit students should expect an intensive study of and practice in writing processes, from invention and researching to drafting, revising, and editing, both individually and collaboratively. Emphasis on effective rhetorical choices, including audience, purpose, arrangement, and style. Focus on writing the academic essay as a vehicle for learning, communicating, and critical analysis. In semester two, students will practice strategies and techniques for developing research-based expository and persuasive texts. Emphasis on effective and ethical rhetorical inquiry, including primary and secondary research methods; critical reading of verbal, visual, and multimedia texts; systematic evaluation, synthesis, and documentation of information sources; and critical thinking about evidence and conclusions.

### English IV Dual Credit- British Literature

Prerequisite(s):
A. Grade 12 Credit: One (state)
B. Three credits of English (English I, English II, English III)
C. English III Dual Credit- Composition
C. Contract
Note: This course awards a total of 6 college credits for ENGL 2322 & ENGL 2323

English IV Dual Credit students will survey the development of British literature from the Anglo-Saxon period to the Eighteenth Century. Students will study works of prose, poetry, drama, and fiction in relation to their historical, linguistic, and cultural contexts. In semester two, students will survey the development of British literature from the Romantic period to the present. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. All texts will be selected from a diverse group of authors and traditions.

### English IV OnRamps

Prerequisite(s):
A. Grade 12 Credit: One (state)
B. English I and II

This two-semester, six-credit writing intensive sequence features a fall semester course in argumentation, which is essential to leadership communication skills. It is followed by a spring semester topics course, which furthers students' writing in their application of rhetorical skill by analyzing texts related to American identities. Over the two courses, students will research and analyze the various positions held in any public debate and learn to advocate their own positions effectively through a process of drafts and revisions. In the fall, students will explore the ethics of argumentation and what it means to fairly represent someone with whom they disagree. By the spring, students are ready to analyze arguments presented by others, research a topic of

their own, and craft sound and effective arguments. Across these two courses, students will develop their skills and knowledge to write four- to six-page essays and read non-fiction text aligned to college expectations for critical writing, reading, research, and analysis.

### College Preparatory English Language Arts

Prerequisite(s):
A. Satisfactory performance in English I, II, and III and passing performance on EOC English I and IICredit: One (state)
A high priority are seniors who have not demonstrated college readiness by earning at least a 1070 composite score or at least a 500 on the Critical Reading portion of the SAT or above a 363 on the TSI.

This course is offered for students in their senior year of high school who may not have been successful on the Texas Success Initiative (TSI) Assessment or other college readiness measures. Students who enroll in this course will follow the Student Learning Outcomes for Houston Community College (HCC) Developmental Integrated Reading and Writing. The goal of CPELA is to prepare students for college-level English. The course integrates complementary reading and writing assignments with special emphasis given to reasoning and responding to issues arising from class readings. Students will learn to write effective, logical essays, utilizing textual support to develop reading comprehension strategies, and to analyze, synthesize and make value judgments using critical thinking. Lab time is required. Developmental Integrated Reading and Writing course credit at HCC will be awarded when the student successfully completes the assigned essays and earns a 75 each semester. Successful completion of both semesters and all HCC course guidelines waives the TSI reading and writing assessment requirement, enabling students to enroll in 1301 Composition.

### Creative Writing

Prerequisite(s):
A. Grades 12 Credit: One-half to One (state)
B. English I, II and III or Alief AAC English I, II and III

This is not an EOC Reading and Writing remediation course. Students will develop versatility as a writer. This is a rigorous composition course, which asks students to demonstrate their skill in such forms of writing fictional, short stories, poetry, and drama. All students are expected to demonstrate an understanding of the recursive nature of the writing process, effectively applying the conventions of usage and the mechanics of writing English. Students analyze and discuss published and unpublished pieces of writing, develop peer and self-assessments for effective writing, and set their own goals as writers.

### Humanities

Prerequisite(s):
A. Grades 12 Credit : One (state)
B. English I, II and III or Alief AAC English I, II and III
C. Advanced credit available

This is not an EOC Reading and Writing remediation course. Humanities is an interdisciplinary course in which students recognize writing as an art form. Students read widely to understand how various authors craft compositions for various aesthetic purposes. This course includes the study of major historical and cultural movements and their relationship to literature and the other fine arts. Students use written composition to show an in-depth understanding of creative achievements in the arts and literature and how these various art forms reflect history.

### Literary Genres

Prerequisite(s):
A. Grades 12 Credit: One-half to One (state)
B. English I, II and III or Alief AAC English I, II and III

This is not an EOC Reading and Writing remediation course. Literary Genres will provide a study of major literary works of multiple genres (novels, plays, poems, etc.,) by significant world authors. Content will vary each

semester. The focus will be on guided discussions of the major works studied and analysis of author's craft (author's purpose, diction, tone, and theme). This course will provide an extension of the literary works and genres studied in subsequent English courses.

### Reading IA/IB

Credit: One-half to One (state)
Placement Criteria: Ninth grade students who have not met standard on STAAR Reading 8
A. Full credit course recommended.

This course provides specific preparation for EOC Reading and Writing Grade 9. Reading I students read for a variety of purposes using multiple sources, both narrative and expository. The students learn how to draw complex inferences, analyze, and evaluate information within and across texts. The students read fluently and critically to evaluate texts and learn to understand increasingly demanding and varied texts. The students formulate and support responses to a wide variety of texts along with learning to read and respond to informational texts. The course includes an emphasis on learning strategies with an introduction to test-taking strategies. This is an intensive writing course in which students develop skills necessary for composing expository and persuasive essays. The course emphasizes skills in the use of the conventions and mechanics of written English, as well as effective use of English grammar and vocabulary. All are taught in the context of the writing process.

### Reading IIA/IIB

Credit: One-half to One (state)
Placement Criteria: Tenth grade students who have not met standard on STAAR EOC English I

This course provides specific preparation for EOC English I and II. Reading II students read for a variety of purposes using multiple sources, both narrative and expository. The students learn how to draw complex inferences, analyze, and evaluate information within and across texts. The students read fluently and critically to evaluate texts and learn to understand increasingly demanding and varied texts. The students formulate and support responses to a wide variety of texts along with learning to read and respond to informational texts. The course includes an emphasis on learning strategies with an introduction to test-taking strategies. This is an intensive writing course in which students develop skills necessary for composing expository and persuasive essays. The course emphasizes skills in the use of the conventions and mechanics of written English, as well as effective use of English grammar and vocabulary. All are taught in the context of the writing process.

### Reading IIIA/IIIB

Credit: One-half to One (state)
Placement Criteria: Students who have not met standard on STAAR EOC English II

This course provides specific preparation for English III. Reading III students read for a variety of purposes using multiple sources, both narrative and expository. The students learn how to draw complex inferences, analyze, and evaluate information within and across texts. The students read fluently and critically to evaluate texts and learn to understand increasingly demanding and varied texts. The students formulate and support responses to a wide variety of texts along with learning to read and respond to informational texts. The course includes an emphasis on learning strategies with an introduction to test-taking strategies. This is an intensive writing course in which students develop skills necessary for composing expository and persuasive essays. The course emphasizes skills in the use of the conventions and mechanics of written English, as well as effective use of English grammar and vocabulary. All are taught in the context of the writing process.

### Practical Writing

Placement Criteria: Students who have not met standard on STAAR EOC English I or English II Credit: One-half to One (state)

This course provides specific preparation for EOC English I and II. This is an intensive writing course in which students develop skills necessary for composing expository and persuasive essays. The course emphasizes skills in the use of the conventions and mechanics of written English, as well as effective use of English grammar and vocabulary. All are taught in the context of the writing process.

## ART

### Art I
Prerequisite(s):
A. Grades 9-12 Credit: One (state)

This course curriculum includes drawing, painting, sculpture, ceramics, printmaking, lettering, and technology assignments that challenge students to explore ideas, media, and art tools. Observation, imagination, and creativity will be a focus for this course while helping students make personal choices and connections. Study of elements of art and principles of design, investigation of careers and art history allow students growth and success as they begin to keep an art portfolio.

### Alief AAC Art I
Prerequisite(s):
A. Grades 9-10 Credit: One (state)
B. List Driven – Limited Enrollment

This course is for students with Middle School art experience that want to focus on quality art making. They will explore themes with in-depth investigation of media and technique development. Alief AAC Art I is designed for students with a passion for art making, willingness to work and to grow towards producing work for an Advanced Placement Studio art portfolio.

### Art II: Drawing I
Prerequisite(s):
A. Grades 9-12 Credit: One (state)
B. Credit for Art I

Students who have successfully completed Art I further develop drawing skills using high-level thinking processes and techniques including technology. Contour and gesture drawing approaches combined with value and spatial studies are a major focus. Figure drawing, landscapes, still-life, portrait, fantasy, and representational assignments work toward this goal. More challenging media, study of contemporary and ancient art works and world cultures inspire students and help them develop an individual drawing style. An art portfolio is kept in this course.

### Art III: Drawing II
Prerequisite(s):
A. Grades 11-12 Credit: One (state)
B. Credit for Drawing I

Serious art students refine drawing skills and techniques learned in Drawing I. Students create original works of art in an expressive-inventive and imaginative way. Throughout this course, students choose from a variety of drawing media, techniques, and subject matter traditional and contemporary—to develop a style, theme, or interpretation. Design problems encourage use of art elements and principles of design and include experiences in abstract, non-objective, and realistic drawing approaches. Students prepare a drawing portfolio.

### Alief AAC Drawing II
Prerequisite(s):
A. Grades 10-11 Credit: One (state)
B. Credit for Drawing I
C. List Driven – Limited Enrollment

Advanced students prepare for the AP Drawing and 2D Advanced Placement Design Portfolios. Students explore observational and interpretive drawings in a variety of media and in a challenging and stimulating atmosphere. Analytical and communication skills are mastered with greater responsibility for his/ her art progress and

exposure to artists, styles of art and art history. Students develop higher intellectual engagement and independent learning skills crucial to success in Alief AAC and AP art courses. An art portfolio is kept.

### Art IV: Drawing III

Prerequisite(s):
A. Grades 10-11 Credit: One (state)
B. Credit for Drawing II
C. List Driven – Limited Enrollment

As students prepare for advanced drawing strategies and techniques, they focus now on thematic and Alief AAC and AP like drawing concentrations. Students explore observational and interpretive drawings in a variety of media and in a challenging and stimulating atmosphere. Analytical and communication skills are mastered with greater responsibility for his/ her art progress and exposure to artists, styles of art and art history. Students develop higher intellectual engagement and independent learning skills crucial to success in Alief AAC and AP art courses. An art portfolio is kept.

### Art II: Painting I

Prerequisite(s):
A. Grades 11-12 Credit: One (state)
B. Credit for Art I

Painting I is for students who have completed ART I and want to specialize in painting. Students work in a variety of paint media including watercolor, tempera and acrylic. Painting assignments will extend their technical skills and offer them opportunities to problem solve using wet media. Designing in paint will encourage research of art works of other artists and cultures and will include experiences in abstract, non-objective, and realism. An art portfolio will be kept.

### Alief AAC Painting I

Prerequisite(s):
A. Grades 10-11 Credit: One (state)
B. Credit for Art I
C. List Driven – Limited Enrollment

Alief AAC Painting I is designed for students who want to advance their studies in painting. Students will explore and experiment with painting media and begin to introduce other media into the painting process. The painting projects will be more complex and will require serious problem solving to demonstrate quality and rigor. A portfolio will be kept.

### Art III: Painting II

Prerequisite(s):
A. Grades 11-12 Credit: One (state)
B. Credit for Painting I

This course is designed for students who want to advance their studies in painting. Students will explore and experiment with painting media and begin to introduce other media into the paint surface and process. The painting projects will be more complex and will require serious problem solving to achieve quality and rigor in painting. A painting portfolio will be kept in this course.

### Art IV: Painting III

Prerequisite(s):
A. Grades 11-12 Credit: One (state)
B. Credit for Painting II

Continuing painting students may want to consider a career in art by extending and refining painting skills. Self-directed painting problems encourage use of art elements and principles of design and the use of painting styles such as abstract, non-objective, and the realistic approaches to personal expression and imaginative themes.

There will be serious studies of significant painters and how they approach art and personal expression. Students keep an art portfolio.

### Art II: Printmaking I

Prerequisite(s):
A. Grades 10-12 Credit: One (state)
B. Credit for Painting II

Students extend printmaking skills in monoprints, reductive linoleum, intaglio, or other experimental printing processes. The printing process and specific techniques unique to printmaking will be experienced and explored. Visual themes reflect historical and cultural sources. An art portfolio is prepared.

### Art II: Ceramics I

Prerequisite(s):
A. Grades 9-12 Credit: One (state)
B. Credit for Art I

This course is a study of three-dimensional design in clay. Functional and non-functional ceramics techniques will be studied. Students will develop a personal style of expression through work in clay, including hand-building (coil & slab), throwing on the potter's wheel, glazing, under glazing, stains. Alternative firing and surface techniques may be explored too. Students will learn to evaluate their own work by studying the elements of art and principles of design as well as artists and art works throughout history. Students will begin to prepare a digital portfolio of their work.

### Art III: Ceramics II

Prerequisite(s):
A. Grades 10-12 Credit: One (state)
B. Credit for Ceramics I

This course is an in-depth study of ceramics concepts and will challenge the students with design problems on an advanced level. Students will develop a personal style and demonstrate effective use of ceramic media in solving special three-dimensional problems and assignments. A continuation of hand-building skills, more advanced wheel throwing, and glazing techniques are explored in depth. Alternative firing and surface techniques may be explored. Students will continue learning to evaluate their own work by studying the elements of art and principles of design as well as artists and art works throughout history. Students will continue to build upon the digital portfolio of their work.

### Art IV: Ceramics III

Prerequisite(s):
A. Grades 10-12 Credit: One (state)
B. Credit for Ceramics II

This course is an advanced experience in ceramics concepts and will challenge the students with design problems on an Alief AAC level. Students will develop a personal style and demonstrate effective use of ceramic media in solving special three-dimensional problems and assignments. A continuation of hand-building skills, more advanced wheel throwing, and glazing techniques are explored in depth. Alternative firing and surface techniques may be explored. Students will continue learning to evaluate their own work by studying the elements of art and principles of design as well as artists and art works throughout history. Students will research ceramics concepts and they will continue to build upon the digital portfolio of their work. Everyone in this course will have a one person exhibit in the community.

### Art II: Sculpture I

Prerequisite(s):
A. Grades 10-12 Credit: One (state)
B. Credit for Art I

This course is a study of three-dimensional design in a variety of media. Functional and non-functional sculptural techniques will be studied. Students will develop a personal style of expression through works in a variety of sculptural mediums such as clay, paper, metal, wire, stone, plaster, and wood. Students will learn to evaluate their own work by studying the elements and principles of art as well as artists and art works throughout history. Students will begin to prepare a digital portfolio of their work.

### Art III: Sculpture II

Prerequisite(s):
A. Grades 10-12 Credit: One (state)
B. Credit for Sculpture I

This course is an in-depth study of sculpture concepts and will challenge the students with design problems on an advanced level. Students will develop a personal style and demonstrate effective use of selected sculpture media in solving special three-dimensional problems and assignments. Students will continue learning to evaluate their own work by studying the elements and principles of art as well as artists and art works throughout history. Students will continue to build upon the portfolio of their work.

### Art IV: Sculpture III

Prerequisite(s):
A. Grades 10-12 Credit: One (state)
B. Credit for Sculpture II

This course is an in-depth study of sculpture concepts and will challenge the students with design problems on an advanced level. Students will develop a personal style and demonstrate effective use of selected sculpture media in solving special three-dimensional problems and assignments. Students will continue learning to evaluate their own work by studying the elements and principles of art as well as artists and art works throughout history. A focus on special themes and concentrations are developed through a series of independent projects. Students will continue to build upon the 3-dimensional portfolio.

### Art II: Photography I

Prerequisite(s):
A. Grades 10-11 Credit: One (state)
B. Credit for Art I

Art II Photography is a foundation course for all other photography courses. The elements and principles of design are emphasized through a variety of problems and media. Design, manipulation of form and value is the fundamental focus along with the technical camera skills necessary to the course. The equipment format will be both 35 mm and digital cameras. All photography will be kept in an art portfolio.

### Art III: Photography II

Prerequisite(s):
A. Grades 11-12 Credit: One (state)
B. Credit for Photography I

Art III Photography is a course for students to take their knowledge learned in Photography II to a higher level. The elements and principles of design are still a major emphasis through technical manipulation with the camera. Value design is the fundamental focus along with the technical camera skills necessary for the course. The equipment format will be both 35 mm and digital cameras. All photography will be kept in an art portfolio.

### Art IV: Photography III

Prerequisite(s):
A. Grades 11-12 Credit: One (state)
B. Credit for Photography II

Photography III is a course for students to take their knowledge learned in Photography III to a more rigorous level. Students will work on independent projects with serious attention to concentrations. The elements and principles of design are still a major emphasis through technical manipulation with the camera (digital or

35mm). Value design is the fundamental focus along with the technical camera skills necessary for the course. The equipment format will be both 35 mm and digital cameras and all photography will be kept in a digital art portfolio.

### Art II: Jewelry I

Prerequisite(s):
A. Grade 9-11 Credit: One (state)
B. Credit for Art I

This course is a study of three-dimensional design in a variety of media utilized for personal adornment. Most basic jewelry and metalsmith techniques will be explored. Students will develop a personal style of expression through works in a variety of jewelry mediums such as clay, paper, fiber, non-ferrous metals (copper, silver, nickel silver, and brass), cold connection techniques, soldering, casting, and enameling. Students will learn to evaluate their own work by studying the elements and principles of art as well as artists and art works throughout history. Students will begin to prepare a digital portfolio of their work.

### Art III: Jewelry II

Prerequisite(s):
A. Grades 11-12 Credit: One (state)
B. Credit for Jewelry I

This course is an in-depth study of jewelry concepts and will challenge the students with design problems on an advanced level. Students will develop a personal style and demonstrate effective use of selected jewelry media in solving special three-dimensional problems and assignments. A continuation of cold connection techniques and soldering techniques are explored in depth. Alternative materials not normally associated with jewelry may be explored. Students will continue learning to evaluate their own work by studying the elements and principles of art as well as artists and art works throughout history. Students will continue to build upon the digital portfolio of their work.

### Art: Digital Art and Media I (former Electronic Media I)

Prerequisite(s):
A. Grades 10-12 Credit: One (state)
B. Credit for Art I

This course introduces students to drawing and painting using a computer and specific software. Students transfer original artwork through electronic scanning, learn basics of hardware and a variety of art software programs to build visual electronic portfolios. Careers in electronic media are explored.

### Art: Digital Art and Media II (former Electronic Media II)

Prerequisite(s):
A. Grades 11-12 Credit: One (state)
B. Credit for Digital Art and Media I

Students will use technology (computers, scanners, and digital camera plus software) to create new and original digital graphics and animation art works. Students will practice technology skills in Art II Electronic Media and compose multimedia productions emphasizing originality and new designs. Students explore 2-D and 3-D animation and push ideas beyond assignment boundaries. An electronic portfolio will be kept.

### Art: Advanced Digital Art and Media III

Prerequisite(s):
A. Grades 11-12 Credit: One (state)
B. Credit for Digital Art and Media II

Focus on multimedia production and animation expanded skills, ideas and knowledge learned in Electronic Media III. Students apply several types of computer software in multimedia independent projects. A major electronic media portfolio will be kept.

### Art and Media Communications I

Prerequisite(s):
A. Grades 9-12 Credit: One (state)

Art and Media Communications (Fine Arts Course) provides students a unique opportunity to study post and contemporary art and design practices as agents of communications and change in society. They will learn traditional hand skills, the art elements, and principles of design, how to assemble visual stories, and how to analyze, evaluate, and refine creative ideas. Also, through this class, students will gain media literacy skills alongside technology application skills. They will explore issues relevant to creating and communicating a message in a participatory culture, through online communities, and across multiple media.

### Art and Media Communications II

Prerequisite(s):
A. Grades 9-12 Credit: One (state)
B. Credit for Art and Media Communications I

Art and Media Communications (Fine Arts Course) provides students a unique opportunity to study post and contemporary art and design practices as agents of communications and change in society. They will learn traditional hand skills, the art elements, and principles of design, how to assemble visual stories, and how to analyze, evaluate, and refine creative ideas. Also, through this class, students will gain media literacy skills alongside technology application skills. They will explore issues relevant to creating and communicating a message in a participatory culture, through online communities, and across multiple media.

## ADVANCED PLACEMENT ART COURSES

The following Advanced Placement ART courses may be taken at Level III or Level IV. The art Advanced Placement Portfolio courses enable highly motivated students to do college-level work in art while still in high school. The courses involve significantly more time and commitment than most high school art courses and are intended for students seriously committed to their art. The evaluation for college credit of students enrolled in art AP classes is not based on a written examination. A portfolio is submitted for review by professional artists and teachers.

### ART: AP History of Art

Prerequisite(s):
A. Grades 10-12 Credit: One (state)

Students examine architecture, painting, and sculpture in historical context. This course is the same as a college course in art history. The course helps develop skills necessary to pass the AP History of Art exam and earn 6-8 hours of college credit. Readings, PowerPoint lectures, group projects, field trips to art museums provide students with knowledge and love of art. College textbooks are loaned without charge.

### Art: AP Art Studio-Drawing Portfolio

Prerequisite(s):
A. Grades 11-12 Credit: One (state)
B. Credit in an ART II Level Course
C. List Driven – Limited Enrollment

Highly motivated students pursue in-depth drawing and painting at the AP level of quality. Students can receive credit for college level coursework in high school through this course. Students select a concentration of visual interest for part of the portfolio and breadth of experience in technical completion for the rest of the portfolio. This combination provides the students with a portfolio for college entrance, college credit, and/or employment. A portfolio is required.

### Art: AP ART Two-Dimensional Design Portfolio

Prerequisite(s):
A. Grades 11-12 Credit: One (state)
B. Credit in an Art Level II Course

C. List Driven – Limited Enrollment

Students demonstrate proficiency in two-dimensional design in art forms including painting, drawing, printmaking, graphics design, typography, digital imaging, photography, collage, fabric design, weaving and illustration. The portfolio expectations are divided into three sections: Concentration, Breadth, and Quality. These sections represent the student's best work and are submitted to the College Board. All Students will assemble a portfolio that meets AP guidelines. Successful completion can earn college credit, college entrance or employment. Completion of a portfolio is required.

### Art: AP ART Three-Dimensional Design Portfolio

Prerequisite(s):
A. Grade 11-12 Credit: One (state)
B. Credit in an Art Level II Course
C. List Driven – Limited Enrollment

This course is intended to address a very broad interpretation of three-dimensional design issues. This type of design involves purposeful decision making about how to use the elements and principles of art in an integrated way. The students are asked to demonstrate proficiency in three-dimensional design utilizing a variety of approaches. These approaches might be, but not limited to, jewelry, traditional sculpture techniques, apparel, ceramics, architectural models, fiber arts, and metal work. The portfolio expectations are divided into three sections: Concentration, Breadth, and Quality. These sections represent the student's best work and are submitted to the College Board with images of the selected pieces. Completion of the portfolio is required.

## DANCE

**All levels of Dance Performance Ensemble earn .5 PE Substitution credit per semester.**

### Dance Performance Ensemble I, Pre-Dance Drill

Prerequisite(s):
A. Grades 9 – 11 No Seniors. Credit: One (state)

This course provides preparation and technical skills for students wishing to audition for the Drill Team.

### Dance Performance Ensemble II, Pre-Dance Drill

Prerequisite(s):
A. Grades 10 – 11 No Seniors. Credit: One (state)
B. Credit for Dance Performance Ensemble I

This course provides preparation and technical skills for students wishing to audition for the Drill Team.

### Dance Performance Ensemble III, Pre-Dance Drill

Prerequisite(s):
A. 11th Graders No Seniors. Credit: One (state)
B. Credit for Dance Performance Ensemble II

This course provides preparation and technical skills for students wishing to audition for the Drill Team.

### Dance Performance Ensemble I, Dance/Drill Team I

Prerequisite(s):
A. List Driven Credit: One (state)
B. Audition required.

This course is highly advanced training of practical application, and knowledge in dance/drill team concepts and skills. Three years' prior experience is necessary.

### Dance Performance Ensemble II, Dance/Drill Team II

Prerequisite(s):

A. Credit for Dance Performance Ensemble I Credit: One (state)
B. Audition required.

This course is highly advanced training of practical application, and knowledge in dance/drill team concepts and skills.

### Dance Performance Ensemble III, Dance/Drill Team III

Prerequisite(s):
A. Credit for Dance Performance Ensemble II Credit: One (state)
B. Audition required.

This course is highly advanced training of practical application, and knowledge in dance/drill team concepts and skills.

### Dance Performance Ensemble IV, Dance/Drill Team IV

Prerequisite(s):
A. Credit for Dance Performance Ensemble III Credit: One (state)
B. Audition required.

This course is highly advanced training of practical application, and knowledge in dance/drill team concepts and skills.

### Dance Performance Ensemble I, Alief Jazz Ballet

Prerequisite(s):
A. List Driven Credit: One (state)
B. Audition required.

This course is highly advanced training of practical application, and knowledge in dance/drill team concepts and skills. Three years' prior experience is necessary.

### Dance Performance Ensemble II, Alief Jazz Ballet

Prerequisite(s):
A. Credit for Dance Performance Ensemble I Credit: One (state)
B. Audition required.

This course is highly advanced training of practical application, and knowledge in dance/drill team concepts and skills.

### Dance Performance Ensemble III, Alief Jazz Ballet

Prerequisite(s):
A. Credit for Dance Performance Ensemble II Credit: One (state)
B. Audition required.

This course is highly advanced training of practical application, and knowledge in dance/drill team concepts and skills.

### Dance Performance Ensemble IV, Alief Jazz Ballet

Prerequisite(s):
A. Credit for Dance Performance Ensemble III Credit: One (state)
B. Audition required.

This course is highly advanced training of practical application, and knowledge in dance/drill team concepts and skills.

### Dance Composition/Improvisation I, Alief Jazz Ballet Officer

Prerequisite(s):
A. Grades 9 – 12 Credit: One (state)

B. Audition required.

The AJB/Drill Team Officers class is open only to students who win an officer position in AJB and Drill Team. Officers work with the director to complete individual and group projects that enhance the AJB/Drill Team experience for all members.

### Dance Composition/Improvisation II, Alief Jazz Ballet Officer

Prerequisite(s):
A. Grades 9 – 12 Credit: One (state)
B. Audition required.

The AJB/Drill Team Officers class is open only to students who win an officer position in AJB and Drill Team. Officers work with the director to complete individual and group projects that enhance the AJB/Drill Team experience for all members.

### Dance Composition/Improvisation III, Alief Jazz Ballet Officer

Prerequisite(s):
A. Grades 9 – 12 Credit: One (state)
B. Audition required.

The AJB/Drill Team Officers class is open only to students who win an officer position in AJB and Drill Team. Officers work with the director to complete individual and group projects that enhance the AJB/Drill Team experience for all members.

### Dance Composition/Improvisation IV, Alief Jazz Ballet Officer

Prerequisite(s):
A. Grades 9 – 12 Credit: One (state)
B. Audition required.

The AJB/Drill Team Officers class is open only to students who win an officer position in AJB and Drill Team. Officers work with the director to complete individual and group projects that enhance the AJB/Drill Team experience for all members.

### Principles of Dance, Dance I

Prerequisite(s):
A. Grades 9 – 12 Credit: One (state)
B. Audition required.

This class is an introduction to the fundamental principles of dance, including body alignment, movement dynamics, and musicality. Students will learn basic dance vocabulary and explore various dance styles through movement exercises and choreography. This course is designed to develop students' physical coordination, creativity, and appreciation for the art of dance.

### Principles of Dance, Dance II

Prerequisite(s):
A. Grade 10 Credit: One (state)
B. Principles of Dance, Dance I

This class is an intermediate level course focusing on the principles of dance for students who have completed Dance I. Students will further develop their understanding of dance techniques, terminology, and choreography. Emphasis will be placed on refining movement quality, musicality, and performance skills. Through a combination of technique classes, creative exercises, and performance opportunities, students will deepen their appreciation for the art of dance.

### Principles of Dance, Dance III

Prerequisite(s):
A. Grade 11 Credit: One (state)

B. Principles of Dance, Dance II

This class is an advanced level course that builds upon the principles of dance learned in Dance II. Students will delve deeper into the nuances of dance technique, explore more complex movement patterns, and refine their choreographic skills. Through intensive training and creative exploration, students will further develop their individual artistic voice and performance abilities. This course will challenge students to push their boundaries and grow as dancers and performers.

### Principles of Dance, Dance IV

Prerequisite(s):
A. Grade 12 Credit: One (state)
B. Principles of Dance, Dance III

This class is an advanced level course that builds upon the principles of dance learned in Dance II. Students will delve deeper into the nuances of dance technique, explore more complex movement patterns, and refine their choreographic skills. Through intensive training and creative exploration, students will further develop their individual artistic voice and performance abilities. This course will challenge students to push their boundaries and grow as dancers and performers.

## MUSIC- Band

### Beginner Band I

Prerequisite(s):
A. Grades 9 – 12 Credit: One (state)
B. List Driven – Limited Enrollment

Beginner Band emphasizes fundamentals for beginning band students who are learning to play an instrument and performing basic repertoire. All students are required to participate in extracurricular activities which take place before and/or after school hours. Marching Band earns .5 PE Substitution Credit.

### Band I – (formerly known as Marching Band)

Prerequisite(s):
A. Grades 9 – 12 Credit: One (state)
B. List Driven – Limited Enrollment

This class is the official band class for students that play wind and percussion instruments. Students are required to participate in extracurricular performances and showcases. Students are required to participate in before/after school rehearsals. Students must audition prior to proper placement in the band. Marching Band earns .5 PE Substitution Credit.

### Band II – (formerly known as Marching Band)

Prerequisite(s):
A. Grades 10 – 12 Credit: One (state)
B. Credit for Band I
C. List Driven

This class is the official band class for students that play wind and percussion instruments. Students are required to participate in extracurricular performances and showcases. Students are required to participate in before/after school rehearsals. Students must audition prior to proper placement in the band. Marching Band earns .5 PE Substitution Credit

### Band III – (formerly known as Marching Band)

Prerequisite(s):
A. Grades 11 – 12 Credit: One (state)
B. Credit Band II
C. List Driven

This class is the official marching band class for students that play wind and percussion instruments. Students are required to participate in extracurricular performances and showcases. Students are required to participate in before/after school rehearsals. Students must audition prior to proper placement in the band. Marching Band earns .5 PE Substitution Credit.

### Band IV – (formerly known as Marching Band)

Prerequisite(s):
A. Grade 12 Credit: One (state)
B. Credit Band III
C. List Driven

This class is the official band class for students that play wind and percussion instruments. Students are required to participate in extracurricular performances and showcases. Students are required to participate in before/after school rehearsals. Students must audition prior to proper placement in the band. Marching Band earns .5 PE Substitution Credit

### Band I, Concert Band I

Prerequisite(s):
A. Grades 9 – 12 Credit: One (state)
B. List Driven – Limited Enrollment

Concert Band emphasizes fundamentals in technique, tone production, counting and performing more complex rhythms, and the development of aural skills. All students are required to participate in extracurricular activities which take place before and/or after school hours. Marching Band earns .5 PE Substitution Credit for up to two fall semesters.

### Band II, Concert Band II

Prerequisite(s):
A. Grades 10 – 12 Credit: One (state)
B. List Driven – Limited Enrollment
C. Credit for Concert Band I

Concert Band emphasizes fundamentals in technique, tone production, counting and performing more complex rhythms, and the development of aural skills. All students are required to participate in extracurricular activities which take place before and/or after school hours. Marching Band earns .5 PE Substitution Credit for up to two fall semesters.

### Band III, Concert Band III

Prerequisite(s):
A. Grades 11 – 12 Credit: One (state)
B. List Driven – Limited Enrollment
C. Credit for Concert Band II

Concert Band emphasizes fundamentals in technique, tone production, counting and performing more complex rhythms, and the development of aural skills. All students are required to participate in extracurricular activities which take place before and/or after school hours. Marching Band earns .5 PE Substitution Credit for up to two fall semesters.

### Band IV, Concert Band IV

Prerequisite(s):
A. Grade 12 Credit: One (state)
B. List Driven – Limited Enrollment
C. Credit for Concert Band III

Concert Band emphasizes fundamentals in technique, tone production, counting and performing more complex rhythms, and the development of aural skills. All students are required to participate in extracurricular activities

which take place before and/or after school hours. Marching Band earns .5 PE Substitution Credit for up to two fall semesters.

### Band I, Symphonic Band I

Prerequisite(s):
A. Grades 9 – 12 Credit: One (state)
B. List Driven – Limited Enrollment

Symphonic Band teaches advanced technical skills. Reading and performing more extensive band literature is required. All students are required to participate in extracurricular activities which take place before and/or after school hours. Marching Band earns.5 PE Substitution Credit for up to two fall semesters.

### Band II, Symphonic Band II

Prerequisite(s):
A. Grades 10 – 12 Credit: One (state)
B. List Driven – Limited Enrollment
C. Credit for Symphonic Band I

Symphonic Band teaches advanced technical skills. Reading and performing more extensive band literature is required. All students are required to participate in extracurricular activities which take place before and/or after school hours. Marching Band earns .5 PE Substitution Credit for up to two fall semesters.

### Band III, Symphonic Band III

Prerequisite(s):
A. Grades 11 – 12 Credit: One (state)
B. List Driven – Limited Enrollment
C. Credit for Symphonic Band II

Symphonic Band teaches advanced technical skills. Reading and performing more extensive band literature is required. All students are required to participate in extracurricular activities which take place before and/or after school hours. Marching Band earns .5 PE Substitution Credit for up to two fall semesters.

### Band IV, Symphonic Band IV

Prerequisite(s):
A. Grade 12 Credit: One (state)
B. List Driven – Limited Enrollment
C. Credit for Symphonic Band III

Symphonic Band teaches advanced technical skills. Reading and performing more extensive band literature is required. All students are required to participate in extracurricular activities which take place before and/or after school hours. Marching Band earns .5 PE Substitution Credit for up to two fall semesters.

### Band I, Wind Ensemble I

Prerequisite(s):
A. Grades 9 – 12 Credit: One (state)
B. List Driven – Limited Enrollment

Wind Ensemble teaches advanced technical skills. Reading and performing more extensive band literature is required. This is the most advanced performing group. All students are required to participate in extracurricular activities which take place before and/or after school hours. Marching Band earns .5 PE Substitution Credit for up to two fall semesters.

### Band II, Wind Ensemble II

Prerequisite(s):
A. Grades 10 – 12 Credit: One (state)
B. List Driven – Limited Enrollment

C. Credit for Wind Ensemble I

Wind Ensemble teaches advanced technical skills. Reading and performing more extensive band literature is required. This is the most advanced performing group. All students are required to participate in extracurricular activities which take place before and/or after school hours. Marching Band earns .5 PE Substitution Credit for up to two fall semesters.

### Band III, Wind Ensemble III

Prerequisite(s):
A. Grades 11 – 12 Credit: One (state)
B. List Driven – Limited Enrollment
C. Credit for Wind Ensemble II

Wind Ensemble teaches advanced technical skills. Reading and performing more extensive band literature is required. This is the most advanced performing group. All students are required to participate in extracurricular activities which take place before and/or after school hours. Marching Band earns .5 PE Substitution Credit for up to two fall semesters.

### Band III, Advanced Wind Ensemble III

Prerequisite(s):
A. Grades 11 – 12 Credit: One to Two (state)
B. List Driven – Limited Enrollment
C. Credit for Wind Ensemble II

Advanced Wind Ensemble is on the 5.0 grade scale and is open to juniors and seniors in Wind Ensemble who complete additional requirements including solo recital, research project, and/or theory/composition project. All students are required to participate in extracurricular activities which take place before and/or after school hours. Marching Band earns .5 PE Substitution Credit for up to two fall semesters.

### Band IV, Wind Ensemble IV

Prerequisite(s):
A. Grade 12 Credit: One (state)
B. List Driven – Limited Enrollment
C. Credit for Wind Ensemble III

Wind Ensemble teaches advanced technical skills. Reading and performing more extensive band literature is required. This is the most advanced performing group. All students are required to participate in extracurricular activities which take place before and/or after school hours. Marching Band earns .5 PE Substitution Credit for up to two fall semesters.

### Band IV, Advanced Wind Ensemble IV

Prerequisite(s):
A. Grade 12 Credit: One to Two (state)
B. List Driven – Limited Enrollment
C. Credit for Wind Ensemble III

Advanced Wind Ensemble is on the 5.0 grade scale and is open to juniors and seniors in Wind Ensemble who complete additional requirements including solo recital, research project, and/or theory/composition project. All students are required to participate in extracurricular activities which take place before and/or after school hours. Marching Band earns .5 PE Substitution Credit for up to two fall semesters.

### Jazz Band I

Prerequisite(s):
A. Grades 9 – 12 Credit: One (state)
B. List Driven – Limited Enrollment

The Jazz Band class covers the study of jazz and popular music. All students are required to participate in co-curricular activities which take place before and/or after school hours.

### Jazz Band II

Prerequisite(s):
A. Grades 10 – 12 Credit: One (state)
B. Credit for Jazz I
C. List Driven – Limited Enrollment

The Jazz Band class covers the study of jazz and popular music. All students are required to participate in co-curricular activities which take place before and/or after school hours.

### Jazz Band III

Prerequisite(s):
A. Grades 11 – 12 Credit: One (state)
B. Credit for Jazz II
C. List Driven – Limited Enrollment

The Jazz Band class covers the study of jazz and popular music. All students are required to participate in co-curricular activities which take place before and/or after school hours.

### Jazz Band IV

Prerequisite(s):
A. Grade 12 Credit: One (state)
B. Credit for Jazz III
C. List Driven – Limited Enrollment

The Jazz Band class covers the study of jazz and popular music. All students are required to participate in co-curricular activities which take place before and/or after school hours.

### Band I, Percussion I

Prerequisite(s):
A. Grades 9 – 12 Credit: One (state)
B. List Driven – Limited Enrollment

Percussion Class teaches all areas of percussion including concert and marching drums; both pitched and non-pitched percussion. All students are required to participate in co-curricular activities which take place before and/or after school hours. Percussion I – IV earns .5 PE Substitution Credit for up to two fall semesters.

### Band II, Percussion II

Prerequisite(s):
A. Grades 10 – 12 Credit: One (state)
B. List Driven – Limited Enrollment
C. Credit for Percussion I

Percussion Class teaches all areas of percussion including concert and marching drums; both pitched and non-pitched percussion. All students are required to participate in co-curricular activities which take place before and/or after school hours. Percussion I – IV earns .5 PE Substitution Credit for up to two fall semesters.

### Band III, Percussion III

Prerequisite(s):
A. Grades 11 – 12 Credit: One (state)
B. List Driven – Limited Enrollment
C. Credit for Percussion II

Percussion Class teaches all areas of percussion including concert and marching drums; both pitched and non-pitched percussion. All students are required to participate in co-curricular activities which take place before and/or after school hours. Percussion I – IV earns .5 PE Substitution Credit for up to two fall semesters.

### Band III, Advanced Percussion III

Prerequisite(s):
A. Grades 11 – 12 Credit: One to Two (state)
B. List Driven – Limited Enrollment
C. Credit for Percussion II

Advanced Percussion is on the 5.0 grade scale and is open to juniors and seniors in Percussion Class who complete additional requirements including solo recital, research study, and/or theory/composition project. All students are required to participate in co-curricular activities which take place before and/or after school hours. Advanced Percussion III and IV earns .5 PE Substitution Credit for up to two fall semesters.

### Band IV, Percussion IV

Prerequisite(s):
A. Grade 12 Credit: One (state)
B. List Driven – Limited Enrollment
C. Credit for Percussion III

Percussion Class teach all areas of percussion including concert and marching drums; both pitched and non-pitched percussion. All students are required to participate in co-curricular activities which take place before and/or after school hours. Percussion I – IV earns .5 PE Substitution Credit for up to two fall semesters.

### Band IV, Advanced Percussion IV

Prerequisite(s):
A. Grade 12 Credit: One to Two (state)
B. List Driven – Limited Enrollment
C. Credit for Percussion III

Advanced Percussion is on the 5.0 grade scale and is open to juniors and seniors in Percussion Class who complete additional requirements including solo recital, research study, and/or theory/composition project. All students are required to participate in co-curricular activities which take place before and/or after school hours. Advanced Percussion earns .5 PE Substitution Credit for up to two fall semesters.

### Dance Performance Ensemble I, Color Guard I

Prerequisite(s):
A. Grades 9 – 12 Credit: One (state)
B. Audition required.

Color guard emphasizes fundamentals through advanced skills in flags, rifles, and marching. All students are required to participate in co-curricular activities which take place before and/or after school hours. Color guard I – IV earns PE Substitution Credit if students are participating in Marching Band participation required for the PE Substitution Credit. However, if taught as a Fine Arts Dance course by a certified Dance Teacher for the full year, they can get a full year Fine Arts credit for Dance Performance Ensemble. This applies to all levels of color guard including II, III, and IV. Remember that the DANCE TEKS must be delivered and assessed under a certified dance teacher. However, a band director or outside color guard instructor can do the bulk of the instruction. This applies to the other color guard courses below.

### Dance Performance Ensemble II, Color Guard II

Prerequisite(s):
A. Grades 10 – 12 Credit: One (state)
B. Credit for Dance Performance Ensemble I
C. Audition required.

Color guard emphasizes fundamentals through advanced skills in flags, rifles, and marching. All students are required to participate in co-curricular activities which take place before and/or after school hours. Color guard I – IV earns PE Credit if students are participating in the Marching Band.

### Dance Performance Ensemble III, Color Guard III

Prerequisite(s):
A. Grades 11 – 12 Credit: One (state)
B. Credit for Dance Performance Ensemble II
C. Audition required.

Color guard emphasizes fundamentals through advanced skills in flags, rifles, and marching. All students are required to participate in co-curricular activities which take place before and/or after school hours. Color guard I – IV earns PE Credit if students are participating in the Marching Band.

### Dance Performance Ensemble IV, Color Guard IV

Prerequisite(s):
A. Grade 12 Credit: One (state)
B. Credit for Dance Performance Ensemble III
C. Audition required.

Color guard emphasizes fundamentals through advanced skills in flags, rifles, and marching. All students are required to participate in co-curricular activities which take place before and/or after school hours. Color guard I – IV earns PE Credit if students are participating in the Marching Band.

## MUSIC- Choir

### Vocal Ensemble I Treble Choir I

Prerequisite(s):
A. Grades 9 – 12 Credit: One (state)
B. Open to any interested treble voices. (Treble voices ONLY)

Beginning vocal and choral techniques are taught including tone, balance, blend, and sight-singing. All students are required to participate in co-curricular activities which take place before and/or after school hours. Director interview is necessary if a student has previous choral experience.

### Vocal Ensemble II Treble Choir II

Prerequisite(s):
A. Grades 10 – 12 Credit: One (state)
B. Open to any interested treble voices.
C. Credit for Choir I (Treble voices ONLY)

Beginning vocal and choral techniques are taught including tone, balance, blend, and sight-singing. All students are required to participate in co-curricular activities which take place before and/or after school hours. Director interview is necessary if a student has previous choral experience.

### Vocal Ensemble III Treble Choir III

Prerequisite(s):
A. Grades 11 – 12 Credit: One (state)
B. Open to any interested treble voices.
C. Credit for Choir II (Treble voices ONLY)

Beginning vocal and choral techniques are taught including tone, balance, blend, and sight-singing. All students are required to participate in co-curricular activities which take place before and/or after school hours. Director interview is necessary if a student has previous choral experience.

### Vocal Ensemble IV-Treble Choir IV

Prerequisite(s):
A. Grade 12 Credit: One (state)
B. Open to any interested treble voices.
C. Credit for Choir III (Treble voices ONLY)

Beginning vocal and choral techniques are taught including tone, balance, blend, and sight-singing. All students are required to participate in co-curricular activities which take place before and/or after school hours. Director interview is necessary if a student has previous choral experience.

### Vocal Ensemble I Tenor/Bass Choir I

Prerequisite(s):
A. Grades 9 – 12 Credit: One (state)
B. Open to any interested tenor/bass voices. (Tenor/Bass voices ONLY)

Beginning vocal and choral techniques are taught including tone, balance, blend, and sight-singing. All students are required to participate in co-curricular activities which take place before and/or after school hours. Director interview is necessary if a student has previous choral experience.

### Vocal Ensemble II Tenor/Bass Choir II

Prerequisite(s):
A. Grades 10 – 12 Credit: One (state)
B. Open to any interested tenor/bass voices.
C. Credit for Choir I (Tenor/Bass voices ONLY)

Vocal and choral techniques are taught including tone, balance, blend, and sight-singing. All students are required to participate in co-curricular activities which take place before and/or after school hours. Director interview is necessary if a student has previous choral experience.

### Vocal Ensemble III Tenor/Bass Choir III

Prerequisite(s):
A. Grades 11 – 12 Credit: One (state)
B. Open to any interested tenor/bass voices.
C. Credit for Choir II (Tenor/Bass voices ONLY)

Vocal and choral techniques are taught including tone, balance, blend, and sight-singing. All students are required to participate in co-curricular activities which take place before and/or after school hours. Director interview is necessary if a student has previous choral experience.

### Vocal Ensemble IV Tenor/Bass Choir IV

Prerequisite(s):
A. Grade 12 Credit: One (state)
B. Open to any interested tenor/bass voices.
C. Credit for Choir III (Tenor/Bass voices ONLY)

Vocal and choral techniques are taught including tone, balance, blend, and sight-singing. All students are required to participate in co-curricular activities which take place before and/or after school hours. Director interview is necessary if a student has previous choral experience.

### Choir I Chorale

Prerequisite(s):
A. Grades 9 – 12 Credit: One (state)
B. List Driven – Limited Enrollment. Open to treble, tenor, and bass voices.

Intermediate vocal and choral techniques are taught including tone, balance, blend, and sight-singing. All students are required to participate in co-curricular activities which take place before and/or after school hours.

### Choir II Chorale

Prerequisite(s):
A. Grades 10 – 12 Credit: One (state)
B. List Driven – Limited Enrollment. Open to treble, tenor, and bass voices.
C. Credit for Chorale I

Intermediate vocal and choral techniques are taught including tone, balance, blend, and sight-singing. All students are required to participate in co-curricular activities which take place before and/or after school hours.

### Choir III Chorale

Prerequisite(s):
A. Grades 11 – 12 Credit: One (state)
B. List Driven – Limited Enrollment. Open to treble, tenor, and bass voices.
C. Credit for Chorale II

Intermediate vocal and choral techniques are taught including tone, balance, blend, and sight-singing. All students are required to participate in co-curricular activities which take place before and/or after school hours.

### Music IV, Choir IV Chorale

Prerequisite(s):
A. Grade 12 Credit: One (state)
B. List Driven – Limited Enrollment. Open to treble, tenor, and bass voices.
C. Credit for Chorale III
Intermediate vocal and choral techniques are taught including tone, balance, blend, and sight-singing. All students are required to participate in co-curricular activities which take place before and/or after school hours.

### Music I, Choir I Varsity Chorale

Prerequisite(s):
A. Grades 9 – 12 Credit: One (state)
B. Audition required.

Advanced vocal and choral techniques are taught including tone, balance, blend, and sight-singing. All students are required to participate in co-curricular activities which take place before and/or after school hours.

### Music II, Choir II Advanced Varsity Chorale

Prerequisite(s):
A. Grades 10 – 12 Credit: One (state)
B. Audition required.
C. Credit for Choir I

Advanced Varsity Chorale is on the 5.0 grade scale and is open to all juniors and seniors in Varsity Chorale who complete additional requirements including solo recital, research study, and/or theory/composition project. All students are required to participate in co-curricular activities which take place before and/or after school hours. Additional coursework is required.

### Music III, Choir III Advanced Varsity Chorale

Prerequisite(s):
A. Grades 11 – 12 Credit: One (state)
B. Audition required.
C. Credit for Choir II

Advanced Varsity Chorale is on the 5.0 grade scale and is open to all juniors and seniors in Varsity Chorale who complete additional requirements including solo recital, research study, and/or theory/composition project. All

students are required to participate in co-curricular activities which take place before and/or after school hours. Additional coursework is required.

### Music IV, Choir IV Advanced Varsity Chorale

Prerequisite(s):
A. Grade 12 — Credit: One (state)
B. Credit for Choir III
C. Audition required.

Advanced Varsity Chorale is on the 5.0 grade scale and is open to all juniors and seniors in Varsity Chorale who complete additional requirements including solo recital, research study, and/or theory/composition project. All students are required to participate in co-curricular activities which take place before and/or after school hours. Additional coursework is required.

### Vocal Ensemble I, Jazz Chorale I

Prerequisite(s):
A. Grades 9 – 12 — Credit: One (state)
B. List Driven – Limited Enrollment

Focuses on small group study of advanced vocal and choral techniques including tone, balance, blend and sight-singing as well as choreography suitable for show choir. All students are required to participate in co-curricular activities which take place before and/or after school hours.

### Vocal Ensemble II, Jazz Chorale II

Prerequisite(s):
A. Grades 10 – 12 — Credit: One (state)
B. Credit for Jazz Chorale I
C. List Driven – Limited Enrollment

Focuses on small group study of advanced vocal and choral techniques including tone, balance, blend and sight-singing as well as choreography suitable for show choir. All students are required to participate in co-curricular activities which take place before and/or after school hours.

### Vocal Ensemble III, Jazz Chorale III

Prerequisite(s):
A. Grades 11 – 12 — Credit: One (state)
B. Credit for Jazz Chorale II
C. List Driven – Limited Enrollment

Focuses on small group study of advanced vocal and choral techniques including tone, balance, blend and sight-singing as well as choreography suitable for show choir. All students are required to participate in co-curricular activities which take place before and/or after school hours.

### Vocal Ensemble IV, Jazz Chorale IV

Prerequisite(s):
A. Grade 12 — Credit: One (state)
B. Credit for Jazz Chorale III
C. List Driven – Limited Enrollment

Focuses on small group study of advanced vocal and choral techniques including tone, balance, blend and sight-singing as well as choreography suitable for show choir. All students are required to participate in co-curricular activities which take place before and/or after school hours.

## MUSIC- Guitar

### Music I, Guitar I

Prerequisite(s):
A. Grades 9 – 12 — Credit: One (state)

B. List Driven – Limited Enrollment

This class consists of small group and individualized study of instrumental solo/ensemble literature and performance.

### Music II, Guitar II

Prerequisite(s):
A. Grades 10 – 12 Credit: One (state)
B. Credit for Guitar I
C. List Driven – Limited Enrollment

This class consists of small group and individualized study of instrumental solo/ensemble literature and performance.

### Music III, Guitar III

Prerequisite(s):
A. Grades 11 – 12 Credit: One (state)
B. Credit for Guitar II
C. List Driven – Limited Enrollment

This class consists of small group and individualized study of instrumental solo/ensemble literature and performance.

### Music IV, Guitar IV

Prerequisite(s):
A. Grade 12 Credit: One (state)
B. Credit for Guitar III
C. List Driven – Limited Enrollment

This class consists of small group and individualized study of instrumental solo/ensemble literature and performance.

## MUSIC- Instrumental Ensemble

### Music I, Instrumental Ensemble I

Prerequisite(s):
A. Grades 9 – 12 Credit: One (state)
B. List Driven – Limited Enrollment

This class consists of small group and individualized study of instrumental solo/ensemble literature and performance. All students are required to participate in curricular activities which take place before and/or after school hours.

### Music II, Instrumental Ensemble II

Prerequisite(s):
A. Grades 10 – 12 Credit: One (state)
B. Credit for Instrumental Ensemble I
C. List Driven

This class consists of small group and individualized study of instrumental solo/ensemble literature and performance. All students are required to participate in curricular activities which take place before and/or after school hours.

### Music III, Instrumental Ensemble III

Prerequisite(s):
A. Grades 11 – 12 Credit: One (state)
B. Credit for Instrumental Ensemble II

C. List Driven

This class consists of small group and individualized study of instrumental solo/ensemble literature and performance. All students are required to participate in curricular activities which take place before and/or after school hours.

### Music IV, Instrumental Ensemble IV

Prerequisite(s):
A. Grade 12 Credit: One (state)
B. Credit for Instrumental Ensemble III
C. List Driven

This class consists of small group and individualized study of instrumental solo/ensemble literature and performance. All students are required to participate in curricular activities which take place before and/or after school hours.

## MUSIC- Mariachi

### Music I, Mariachi I

Prerequisite(s):
A. Grades 9-12 Credit: One (state)
B. List Driven – Limited Enrollment.

Mariachi class covers the study of Mariachi as a genre, including technical skills, style, and mariachi repertoire. All students are required to participate in co-curricular activities which take place before and/or after school hours.

### Music II, Mariachi II

Prerequisite(s):
A. Grades 10-12 Credit: One (state)
B. Credit for Mariachi I
C. List Driven – Limited Enrollment.

Mariachi class covers the study of Mariachi as a genre, including technical skills, style, and mariachi repertoire. All students are required to participate in co-curricular activities which take place before and/or after school hours.

### Music III, Mariachi III

Prerequisite(s):
A. Grades 11-12 Credit: One (state)
B. Credit for Mariachi II
C. List Driven – Limited Enrollment.

Mariachi class covers the study of Mariachi as a genre, including technical skills, style, and mariachi repertoire. All students are required to participate in co-curricular activities which take place before and/or after school hours.

### Music IV, Mariachi IV

Prerequisite(s):
A. Grade 12 Credit: One (state)
B. Credit for Mariachi III
C. List Driven – Limited Enrollment.

Mariachi class covers the study of Mariachi as a genre, including technical skills, style, and mariachi repertoire. All students are required to participate in co-curricular activities which take place before and/or after school hours.

## MUSIC- Music Theory

### Music Studies I, Music Theory I
Prerequisite(s):
A. Grades 9 – 12 Credit: One (state)
B. List Driven – Limited Enrollment

Teaches fundamental written and applied theory and aural skills.

### Music Studies II, Music Theory II
Prerequisite(s):
A. Grades 10 – 12 Credit: One (state)
B. Credit for Theory I
C. List Driven – Limited Enrollment

Teaches fundamental written and applied theory and aural skills.

### AP Music Theory
Prerequisite(s):
A. Grades 11 – 12 Credit: One (state)
B. Credit for Music Theory II
C. List Driven – Limited Enrollment. Previous music enrollment required.

Teaches advanced theoretical analysis and composition in preparation for the advanced placement Music Theory Exam.

## MUSIC- Orchestra

### Orchestra I, Concert Orchestra I
Prerequisite(s):
A. Grade 9 Credit: One (state)
B. List Driven – Limited Enrollment

This class teaches fundamentals of string playing, plus emphasizes counting and reading. It further develops technical skills. All students are required to participate in co-curricular activities which take place before and/or after school hours.

### Orchestra II, Concert Orchestra II
Prerequisite(s):
A. Grades 10 – 12 Credit: One (state)
B. Credit for Orchestra I
C. List Driven – Limited Enrollment

This class teaches fundamentals of string playing, plus emphasizes counting and reading. It further develops technical skills. All students are required to participate in co-curricular activities which take place before and/or after school hours.

### Orchestra III, Concert Orchestra III
Prerequisite(s):
A. Grades 11 – 12 Credit: One (state)
B. Credit for Orchestra II
C. List Driven – Limited Enrollment

This class teaches fundamentals of string playing, plus emphasizes counting and reading. It further develops technical skills. All students are required to participate in co-curricular activities which take place before and/or after school hours.

### Orchestra IV, Concert Orchestra IV

Prerequisite(s):
A. Grade 12 Credit: One (state)
B. Credit for Orchestra III
C. List Driven – Limited Enrollment

This class teaches fundamentals of string playing, plus emphasizes counting and reading. It further develops technical skills. All students are required to participate in co-curricular activities which take place before and/or after school hours.

### Orchestra I, Philharmonic Orchestra I

Prerequisite(s):
A. Grade 9 Credit: One (state)
B. List Driven – Limited Enrollment

This class teaches fundamentals of string playing, plus emphasizes counting and reading. It further develops technical skills. All students are required to participate in co-curricular activities which take place before and/or after school hours.

### Orchestra II, Philharmonic Orchestra II

Prerequisite(s):
A. Grades 10 – 12 Credit: One (state)
B. Credit Orchestra I
C. List Driven – Limited Enrollment

This class teaches fundamentals of string playing, plus emphasizes counting and reading. It further develops technical skills. All students are required to participate in co-curricular activities which take place before and/or after school hours.

### Orchestra III, Philharmonic Orchestra III

Prerequisite(s):
A. Grades 11 – 12 Credit: One (state)
B. Credit for Orchestra II
C. List Driven – Limited Enrollment

This class teaches fundamentals of string playing, plus emphasizes counting and reading. It further develops technical skills. All students are required to participate in co-curricular activities which take place before and/or after school hours.

### Orchestra IV, Philharmonic Orchestra IV

Prerequisite(s):
A. Grade 12 Credit: One (state)
B. Credit for Orchestra III
C. List Driven – Limited Enrollment

This class teaches fundamentals of string playing, plus emphasizes counting and reading. It further develops technical skills. All students are required to participate in co-curricular activities which take place before and/or after school hours.

### Orchestra I, Symphony Orchestra I

Prerequisite(s):
A. Grade 9 Credit: One (state)
B. List Driven – Limited Enrollment

This class teaches fundamentals of string playing, plus emphasizes counting and reading. It further develops technical skills. All students are required to participate in co-curricular activities which take place before and/or after school hours.

### Orchestra II, Symphony Orchestra II

Prerequisite(s):
A. Grades 10 – 12 Credit: One (state)
B. Credit for Orchestra I
C. List Driven – Limited Enrollment

This class teaches fundamentals of string playing, plus emphasizes counting and reading. It further develops technical skills. All students are required to participate in co-curricular activities which take place before and/or after school hours.

### Orchestra III, Symphony Orchestra III

Prerequisite(s):
A. Grades 11 – 12 Credit: One (state)
B. Credit for Orchestra II
C. List Driven – Limited Enrollment

This class teaches fundamentals of string playing, plus emphasizes counting and reading. It further develops technical skills. All students are required to participate in co-curricular activities which take place before and/or after school hours.

### Orchestra III, Advanced Symphony Orchestra III

Prerequisite(s):
A. Grades 11 – 12 Credit: One to Two (state)
B. Credit for Orchestra II
C. List Driven – Limited Enrollment

Advanced Symphony Orchestra is on the 5.0 grade scale and open to all juniors and seniors in Symphony Orchestra who complete additional requirements including solo recital, research study and/or theory/composition project. All students are required to participate in co-curricular activities which take place before and/or after school hours. Students are expected to meet additional performance requirements of this course.

### Orchestra IV, Symphony Orchestra IV

Prerequisite(s):
A. Grade 12 Credit: One (state)
B. Credit for Orchestra III
C. List Driven – Limited Enrollment

This class teaches fundamentals of string playing, plus emphasizes counting and reading. It further develops technical skills. All students are required to participate in co-curricular activities which take place before and/or after school hours.

### Orchestra IV, Advanced Symphony Orchestra IV

Prerequisite(s):
A. Grade 12 Credit: One to Two (state)
B. Credit for Orchestra III
C. List Driven – Limited Enrollment

Advanced Symphony Orchestra is on the 5.0 grade scale and open to all juniors and seniors in Symphony Orchestra who complete additional requirements including solo recital, research study and/or theory/composition project. All students are required to participate in co-curricular activities which take place

before and/or after school hours. Students are expected to meet additional performance requirements of this course.

## MUSIC- Piano

### Music I, Piano I
Prerequisite(s):
A. Grades 9 – 12 Credit: One (state)
B. Prior musical training recommended (vocal and/or instrumental)

Teaches fundamental piano techniques as well as written and applied music theory and aural skills.

### Music II, Piano II
Prerequisite(s):
A. Grades 10 – 12 Credit: One (state)
B. Credit for Piano I
C. Prior musical training recommended (vocal and/or instrumental)

Teaches fundamental piano techniques as well as written and applied music theory and aural skills.

### Music III, Piano III
Prerequisite(s):
A. Grades 11 – 12 Credit: One (state)
B. Credit for Piano II
C. Prior musical training recommended (vocal and/or instrumental)

Teaches fundamental piano techniques as well as written and applied music theory and aural skills.

### Music IV, Piano IV
Prerequisite(s):
A. Grade 12 Credit: One (state)
B. Credit for Piano III
C. Prior musical training recommended (vocal and/or instrumental)

Teaches fundamental piano techniques as well as written and applied music theory and aural skills.

## THEATRE ARTS

### Theatre Arts I
Prerequisite(s):
A. Grades 9 – 12 Credit: One (state)

An introduction in the basic techniques of acting, script interpretation, and theatre terminology. Students will study theatre history as well.

### Theatre Arts II
Prerequisite(s):
A. Grades 10 – 12 Credit: One (state)
B. Credit for Theatre Arts I

Emphasizes acting and theatre production concepts and skills.

### Theatre Arts III
Prerequisite(s):
A. Grades 11 – 12 Credit: One (state)

B Credit for Theatre Arts II

Emphasizes the history of drama through reading great plays. Advanced acting and theatre production in skills. Continued development of appreciation of theatrical events.

### Advanced Theatre Arts III

Prerequisite(s):
A. Grades 11-12 Credit: One (state)
B. Credit for Theatre Arts II

Emphasizes the history of drama through reading of great plays. Includes the study of advanced acting and theatre production skills through student directed work. Continued development of appreciation of theatrical events. Additional requirements to production include student directed work, technical direction and/or work study group for UIL One Act Play development.

### Theatre Arts IV

Prerequisite(s):
A. Grades 11-12 Credit: One (state)
B. Credit for Theatre Arts III

Emphasizes the history of drama through reading of great plays. Includes the study of advanced acting and theatre production skills through student directed work. Continued development of appreciation of theatrical events.

### Advanced Theatre Arts IV

Prerequisite(s):
A. Grades 11-12 Credit: One (state)
B. Credit for Theatre Arts III

Emphasizes the history of drama through reading of great plays. Includes the study of advanced acting and theatre production skills through student directed work. Continued development of appreciation of theatrical events. Additional requirements to production include student directed work, technical direction and/or work study group for UIL One Act Play development.

### Theatre Production I

Prerequisite(s):
A. Grades 10 – 12 Credit: One (state)
B. List Driven – Limited Enrollment

Emphasizes acting, theatre production, and the development of appreciation. A lab for dramas in progress.

### Theatre Production II

Prerequisite(s):
A. Grades 10-12 Credit: One (state)
B. Credit for Theater Production I
C. List Driven – Limited Enrollment

Emphasizes acting theatre production, and the development of appreciation. Serves as a lab for dramas in progress.

### Theatre Production III

Prerequisite(s):
A. Grades 10-12 Credit: One (state)
B. List Driven – Limited Enrollment

Emphasizes acting, technical theatre, theatre production, and the development of appreciation. Serves as a lab for dramas in progress.

### Advanced Theatre Production III

Prerequisite(s):
A. Grades 10-12 Credit: One (state)
B. Credit for Theatre Production II
C. List Driven – Limited Enrollment

Emphasizes acting, technical theatre, theatre production, and the development of appreciation. Serves as a lab for dramas in progress. Additional requirements to production include student directed work, technical direction and/or work study group for UIL One Act Play development.

### Theatre Production IV

Prerequisite(s):
A. Grades 10-12 Credit: One (state)
B. Credit for Theatre Production III
C. List Driven – Limited Enrollment

Emphasizes acting, technical theatre, theatre production, and the development of appreciation. Serves as a lab for dramas in progress.

### Advanced Theatre Production IV

Prerequisite(s):
A. Grades 10-12 Credit: One (state)
B. Credit for Theatre Production III
C. List Driven – Limited Enrollment

Emphasizes acting, technical theatre, theatre production, and the development of appreciation. Serves as a lab for dramas in progress. Additional requirements to production include student directed work, technical direction and/or work study group for UIL One Act Play development.

### Technical Theatre I

Prerequisite(s):
A. Grades 10 – 12 Credit: One (state)
B. List Driven

Emphasizes the elements design as they relate to light, sound, and set and costume design for theatre productions. Development of stage management skills.

### Technical Theatre II

Prerequisite(s):
A. Grades 10-12 Credit: One (state)
B. Credit for Technical Theatre I
C. List Driven – Limited Enrollment

Emphasizes the elements design as they relate to light, sound, and set design for theatre productions. Development of stage management skills.

### Advanced Technical Theatre III

Prerequisite(s):
A. Grades 10-12 Credit: One (state)
B. Credit for Technical Theatre II
C. List Driven – Limited Enrollment

Emphasizes the elements design as they relate to light, sound, and set design for theatre productions. Hands on development of stage management skills and technical theatre portfolio. Serves as a technical lab for drama in progress. Additional requirements to production include work in a technical position in ongoing productions, development of personal portfolio, and technical direction.

### Advanced Technical Theatre IV

Prerequisite(s):
A. Grades 10-12 Credit: One (state)
B. Credit for Technical Theatre III
C. List Driven – Limited Enrollment

Emphasizes the elements design as they relate to light, sound, and set design for theatre productions. Hands on development of stage management skills and technical theatre portfolio. Serves as a technical lab for drama in progress. Additional requirements to production include work in a technical position in ongoing productions, development of personal portfolio, and technical direction.

## HEALTH and PHYSICAL EDUCATION

### Health I

Prerequisite(s):
A. Grades 9 – 12 Credit: One-half (state)

This course will provide instruction in health-promoting behaviors. The understanding of these standards will allow students the ability to gather, interpret, and understand health information, achieve health literacy, and adapt to the ever=evolving science of health. The concepts will help students reinforce, foster, and apply positive character traits. The strands include decision-making, problem solving, goal setting, healthy relationships, and influences on health.

### Health II

Prerequisite(s):
A. Grades 9 – 12 Credit: One-half (state)
B. Health I

This course will provide enhanced instruction and practice in health-promoting behaviors. The application of these standards will allow students the ability to understand and practice healthy behaviors, achieve health literacy, and adapt to the ever - evolving science of health. The concepts will help students reinforce, foster, and apply positive character traits. The strands include decision-making, problem solving, goal setting, healthy relationships, and influences on health, and students will practice all of these skills.

### Lifetime Fitness and Wellness Pursuits

Prerequisite(s):
A. Grades 9 – 12 Credit: (One Credit)

Course offers current approaches for the foundation of personal fitness, physical literacy, lifetime wellness, and healthy living. Students will apply the knowledge and skills needed to demonstrate mastery of how to achieve lifetime wellness. Students will participate in a variety of personal physical fitness activities and will design and implement a personal fitness program that includes health-related fitness.

### Lifetime Recreation and Outdoor Pursuits

Prerequisite(s):
A. Grades 9 – 12 Credit: (One Credit)

This course provides opportunities for students to develop competency in five or more lifelong recreational and outdoor pursuits such as lawn games, team building, backpacking, camping, hiking, navigation, water sports, paddle sports, boater education, disc sports and much more. Students will participate in activities that promote physical literacy, respect for and connection to nature and the environment, and opportunities for enjoyment for a lifetime. Fitness activities are incorporated in the content.

### Skill-Based Lifetime Activities

Prerequisite(s):
A. Grades 9 – 12 Credit: (One Credit)

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

### Athletic Physical Education (Team Sports)

Prerequisite(s):
A. Grades 9 – 12 Credit: One to Four (state)
B. List Driven – Limited Enrollment

P.E. is offered in basketball, volleyball, football, soccer, baseball, cross country, track, softball, swimming, diving, and tennis. The students learn and practice skills related to all sports. Game participation is included.

### Team Sport Officiating

Prerequisite(s):
A. Grades 9 – 12 Credit: (One Credit)

Students enrolled in Team Sport Officiating learn rules and regulations of selected team sports, developing skills in communication, decision making, and conflict management which are needed to officiate team sport competitions. Working with coaches, players, other officials, and parents, the expectation is that by the end of the course students will have the ability to officiate at various levels and manage responsibilities that come with the role. Students will be introduced to the rules of the games and officiating mechanics based on approved University Interscholastic League (UIL) association specifications which will form a foundation for a lifetime avocation in officiating. Experienced officials will assist in providing "real-world" experiences in preparing the students for the situations they will face. Students will also develop a personal fitness plan and safety plan that directly relates to the needs of an official. Students apply time management skills and adhere to professional responsibilities and standards including the Sports Officials Code of Ethics and the legal rights and responsibilities of a sports official involved with youth sports in the 21st century.

**Students are required to earn one credit in physical education toward high school graduation. Students may substitute certain physical activities for one-half to one of the required credits of physical education. The substitutions include Drill Team, Marching Band, Cheerleading, Athletics (up to 4 credits), and JROTC. A maximum of four credits in physical education can be counted towards graduation.**

## HEALTH SCIENCE

### Principles of Health Science

Prerequisite(s):
A. Grades: 9-10 Credit: One (state)

The Principles of Health Science course is designed to provide an overview of the therapeutic, diagnostic, health informatics, support services, and biotechnology research and development systems of the healthcare industry.

### Medical Terminology

Prerequisite(s):
A. Grades: 9-10 Credit: One (state)
B. Successful completion of Principles of Health Science

The Medical Terminology course is designed to introduce students to the structure of medical terms, including prefixes, suffixes, word roots, singular and plural forms, and medical abbreviations. The course allows students

to achieve comprehension of medical vocabulary appropriate to medical procedures, human anatomy and physiology, and pathophysiology.

### Health Science Theory

Prerequisite(s):
A. Grades: 11-12 Credit: One (state)
B. Successful completion of Principles of Health Science and Biology

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

### Health Science Theory for Pharmacology

Prerequisite(s):
A. Grades: 11-12 Credit: One (state)
B. Successful completion of Principles of Health Science and Biology
C. Co-requisite: Pharmacology

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

### Pharmacology

Prerequisite(s):
A. Grades: 11-12 Credit: One (state)
B. Biology and Chemistry
C. Successful completion of Principles of Health Science
D. Co-requisite: Health Science Theory for Pharmacology

The Pharmacology course is designed to study how natural and synthetic chemical agents such as drugs affect biological systems. Knowledge of the properties of therapeutic agents is vital in providing quality health care. It is an ever-changing, growing body of information that continually demands greater amounts of time and education from health care workers.

### Health Science Theory – Clinical Rotation

Prerequisite(s):
A. Grades: 11-12 (List Driven – Limited Enrollment) Credit: One (state)
B. Biology and successful completion of Principles of Health Science

So, you want to work at a hospital? You think the medical field is right up your alley? Then Health Science is just for you. This capstone level course is designed to provide for the development of advanced knowledge and skills related to a wide variety of health careers. Students will have hands-on experience at a clinical rotation site secured by the district. Successful completion of Principles of Health Science and Medical Terminology in conjunction with teacher approval is required prior to enrollment.

### Kinesiology I

Prerequisite(s):
A. Grade: 11 Credit: One (state)
B. Successful completion of Principles of Health Science

This course is designed to introduce students to the basic concepts of kinesiology. Students will gain an understanding of body mechanics, physiological functions of muscles and movements, the history of kinesiology, and the psychological impact of sports and athletic performance.

### Kinesiology II

Prerequisite(s):
A. Grade: 11 Credit: One (state)
B. Kinesiology I

The Kinesiology II course is designed to provide students an advanced level of knowledge, skills, and understanding of the body composition and the effect on health, nutritional needs of physically active individuals, qualitative biomechanics, and application of therapeutic modalities, appropriate rehabilitation services, and aerobic training intensity programs. The course is designed to allow students to advance their understanding of professional standards, employability skills, and ethical and legal standards.

### Health Science Theory - Patient Care Technician

Prerequisite(s):
A. Grade: 11 Credit: One (state)
B. Successful completion of Principles of Health Science

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

### Practicum in Health Science – Pharmacy Technician

Prerequisite(s):
A. Grade: 12 Credit: Two (state)
B. Successful completion of Health Science Theory and Pharmacology

This capstone level course is designed to teach students interested in receiving their Pharmacy Technician certification an opportunity to explore the career in depth and obtain the necessary training to prepare them for their state board. Students who successfully complete the required coursework and graduate from high school will sit for the state exam immediately upon graduation allowing them to enter the Pharmacy Technician field within weeks of graduation.

### Practicum in Entrepreneurship – Exercise Science, Wellness, and Restoration

Prerequisite(s):
A. Grade 12 Credit: Two (state)
B. Successful completion of Kinesiology I and Kinesiology II

This capstone level course will provide a logical progression for students that have advanced through the sports medicine courses and provide them with an opportunity to apply the knowledge and skills they have gained to athletic injury recognition, evaluation, management, treatment, and rehabilitation through research investigations and applications related to sports medicine.

### Practicum in HS: Patient Care Technician

Prerequisite(s):
A. Grade 12 Credit: Two (state)
B. Successful completion of Health Science Theory and/ or Health Science for Patient Care Technician

This capstone level course is designed to teach students interested in receiving their Patient Care Technician certification an opportunity to explore the career in depth and obtain the necessary training to prepare them for the certification. Students who successfully complete the required coursework will be recommended to take the Patient Care Technician certification.

## HOSPITALITY AND TOURISM

### Principles of Hospitality and Tourism

Prerequisite(s):
A. Grades: 9-10 Credit: One (state)

Principles of Hospitality and Tourism introduce students to an industry that encompasses lodging, travel and tourism, recreation, amusements, attractions, and food/beverage operations. Students learn knowledge and skills focusing on communication, time management, and customer service that meet industry standards.

Students will explore the history of the hospitality and tourism industry and examine characteristics needed for success in that industry.

## Culinary Arts Program of Study

### Culinary Arts I

Prerequisite(s):
A. Grades: 10-12 (List Driven – Limited Enrollment) Credit: Two (state)
B. Principles of Hospitality and Tourism

Culinary Arts begins with the fundamentals and principles of the art of cooking and the science of baking and includes management and production skills and techniques. Students can pursue a national sanitation certification or other appropriate industry certifications. This course is offered as a laboratory-based course.

### Culinary Arts II

Prerequisite(s):
A. Grades: 10-12 (List Driven – Limited Enrollment) Credit: Two (state)
B. Culinary Arts I

Culinary Arts II will extend content and enhance skills introduced in Culinary Arts by in depth instruction of industry-driven standards to prepare students for success in higher education, certifications, and/or immediate employment.

### Practicum in Culinary Arts

Prerequisite(s):
A. Grades: 11-12 (List Driven – Limited Enrollment) Credit: Two (state)
B. Successful completion of Culinary Arts

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

### Practicum in Culinary Arts—Baking and Pastry I

Prerequisite(s):
A. Grades: 11-12 (List Driven – Limited Enrollment) Credit: Two (state)
B. Successful completion of Culinary Arts

Practicum in Culinary Arts-Baking and Pastry I 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-Baking and Pastry I 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.

### Practicum in Culinary Arts—Baking and Pastry II

Prerequisite(s):
A. Grades: 11-12 (List Driven – Limited Enrollment) Credit: Two (state)
B. Successful completion of Culinary Arts

Practicum in Culinary Arts-Baking and Pastry II 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-Baking and Pastry II 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 will handle pastry duties for the student led Bistro.

## HUMAN SERVICES

### Cosmetology I

Prerequisite(s):
A. Grade: 11 Credit: Three (state)
B. Students must meet the TSI requirement for a Level II certificate **OR** receive a 4000 or above on the English I or English II **and** the Algebra I STAAR EOC
C. Students must complete required elective classes for graduation.

In Cosmetology I, students will complete 24 hours of Dual Credit Cosmetology classes. This is a three-period class located on the HCC Bissonnet campus. Students will complete Fundamentals of Cosmetology, Introduction to Haircutting and Related Theory, Chemical Reformation and Related Theory, Principles of Hair Coloring and Related Theory, Advanced Cosmetology Techniques, and Advanced Hair Design.

### Cosmetology II

Prerequisite(s):
A. Grade: 12 Credit: Three (state)
B. Students must complete and pass all Cosmetology I HCC Dual Credit Classes

In Cosmetology II, students will complete the final 21 hours of Dual Credit and apply for the Cosmetology Operator's license. Students will take Salon Development, Special Topics in Cosmetology, Introduction to Theory of Chemical Hair Color, Advanced Haircutting and Related Theory, Artistry of Hair Theory and Practice, and Preparation for the State Licensing Examination.

## INFORMATION TECHNOLOGY

### Principles of Information Technology

Prerequisite(s):
A. Grades: 9-10 Credit: One (state)

In Principles of Information Technology, students will develop computer literacy skills to adapt to emerging technologies used in the global marketplace. Students will implement personal and interpersonal skills to prepare for a rapidly evolving workplace environment. Students will enhance reading, writing, computing, communication, and reasoning skills and apply them to the information technology environment.

### Networking Systems Program of Study

### Computer Maintenance with Lab

Prerequisite(s):
A. Grades: 10-11 Credit: Two (state)
B. Principles of Information Technology.
C. Recommended co-requisite: Computer Maintenance Lab

In Computer Maintenance, students will acquire knowledge of computer maintenance and creating appropriate documentation. Students will analyze the social responsibility of business and industry regarding the significant issues relating to the environment, ethics, health, safety, and diversity in society and in the workplace as related to computer maintenance. Students will apply technical skills to address the IT industry and emerging technologies.

### Networking with Lab

Prerequisite(s):

A. Grades: 10-11 Credit: Two (state)
B. Successful completion of Computer Maintenance Lab
C. Recommended co-requisite: Networking Lab

In Networking, students will develop knowledge of the concepts and skills related to data networking technologies and practices 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.

### Practicum in Information Technology: Cyber Security

Prerequisite(s):
A. Grade: 12 Credit: Two (state)
B. Successful completion of Computer Maintenance and Networking

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

## JOURNALISM

### Journalism I

Prerequisite(s):
A. Grades 9 – 12 Credit: One (state)

This course introduces students to the ethics and special techniques of journalistic writing, advertising, press laws, and the history of journalism. Students study format and techniques used in publishing material as well as the use of the camera and black/white photography, including darkroom skills. This course requires students to use advanced design skills/strategies.

### Advanced Journalism
### Yearbook Production I
### Yearbook Production II
### Yearbook Production III

Prerequisite(s):
A. Grades 10 – 12 Credit: One (state)
B. Journalism I or Photojournalism
C. List Driven – Limited Enrollment

Students learn the elements and process of yearbook production using desktop publishing. This course requires students to practice journalistic ethics, use advanced writing, interviewing, and digital photography and design skills/strategies and develop an understanding of business concepts such as budgeting, sales, and promotion.

### Advanced Journalism
### Newspaper Production I
### Newspaper Production II
### Newspaper Production III

Prerequisite(s):
A. Grades 10 – 12 Credit: One (state)
B. Journalism I or Photojournalism
C. List Driven – Limited Enrollment

Students learn printing principles, techniques, styles, and finances. Students use desktop publishing to produce the official student publication. Students learn the elements and process of newspaper production using desktop publishing. This course requires students to practice journalistic ethics, use advanced writing, interviewing, digital photography, and design skills/strategies, and develop an understanding of business concepts such as budgeting, sales, and promotion.

### Photojournalism A & B

Prerequisite(s):
A. Grades 10 – 12 Credit: One-half to one (state)
B. List Driven – Limited Enrollment

This course provides study of photographic composition in a journalistic setting. Students learn cropping, proportioning, writing outlines, and photo selection for student publications.

### Independent Study I

Prerequisite(s):
A. Grade 11 – 12 Credit: One-half (state)
B. List Driven – Limited Enrollment
C. Three credits Journalism

This course is a study of one or more of these topics: feature writing, editorials, in-depth reporting, column writing, sports reporting, inter-viewing, design, and photography. Students conduct research and produce original works in areas of interest. This course also provides advanced use of desktop publishing.

### Independent Study II

Prerequisite(s):
A. Grade 11 – 12 Credit: One-half (state)
B. List Driven – Limited Enrollment
C. Three and one-half credits of Journalism
This course provides student's opportunities for further study and research in one or more of the areas listed in Independent Study I.

## LANGUAGES OTHER THAN ENGLISH

### Arabic I

Prerequisite(s): None Credit: One (state)

This course introduces the Arabic language. Students will begin to develop speaking, listening, reading, and writing skills in Arabic. The course includes the TEKS for Language Other Than English and the goals of communication, cultures, connections, comparisons, and communities.

### Arabic II

Prerequisite(s):
A. Arabic I Credit: One (state)

This course will expand students' knowledge of the Arabic language by continuing to develop listening, speaking, reading, and writing. The course includes TEKS for languages Other Than English and the goals of communication, cultures, connections, comparisons, and communities.

### Arabic III

Prerequisite(s):
A. Arabic II Credit: One (state)
Using age-appropriate activities, Level V students expand their ability to perform novice tasks and develop their ability to perform the tasks of the intermediate language learner. The intermediate language learner, when dealing with everyday topics, should:

(A) Participate in simple face-to-face communication.
(B) Create statements and questions to communicate independently when speaking and writing.
(C) Understand main ideas and some details of material on familiar topics when listening and reading.

(D) Understand simple statements and questions when listening and reading.
(E) Meet limited practical and social writing needs.
(F) Use knowledge of the culture in the development of communication skills.
(G) Use knowledge of the components of language to increase accuracy of expression; and
(H) Cope successfully in straightforward social and survival situations.

### Arabic III/ Alief AAC Arabic III

Prerequisite(s):
A. Arabic I, II — Credit: One (state)

This course will expand students' knowledge of the Arabic language by continuing to develop listening, speaking, reading, and writing. The course includes TEKS for languages Other Than English and the goals of communication, cultures, connections, comparisons, and communities.

### Chinese I

Prerequisite(s): None — Credit: One (state)

This course introduces the Chinese language. Students will achieve novice level skills in the domains of listening, speaking, reading, and writing, with primary focus on developing listening and speaking skills. The course includes the TEKS for Languages Other Than English and the goals of communication, cultures, connections, comparisons, and communities.

### Chinese II

Prerequisite(s):
A. Chinese I — Credit: One (state)

In this course students will expand their knowledge of the Chinese language, continuing to develop listening and speaking skills and introducing more reading and writing skills. The aim is for students to achieve a high novice or intermediate level of proficiency. The course includes the TEKS for Languages Other Than English and the goals of communication, cultures, connections, comparisons, and communities.

### Chinese III

Prerequisite(s):
A. Chinese II — Credit: (state)

This course provides practice in the four skills of listening, speaking, reading, and writing in Chinese. Students continue to develop proficiency in the Chinese language with an emphasis on written and verbal communication skills and building cultural understanding. The course requires students to demonstrate the intermediate level of Chinese proficiency in the communicative modes (interpersonal, interpretive, and presentational) and the five goal areas (communication, cultures, connections, comparisons, and communities).

### Alief AAC Chinese III

Prerequisite(s):
A. Chinese II — Credit: One (state)
B. Contract

This course focuses on the same essential knowledge and skills as Chinese III with added emphasis on communication and written skills, cultural analysis, and literary study.

### AP Chinese IV – Language

Prerequisite(s):
A. 2 credits in Chinese (minimum) — Credit: One (state)
B. Contract

This course follows the College Board Advanced Placement Program for Chinese and is comparable to a university-level course in Mandarin Chinese. Students are immersed into the language and culture of the Chinese-speaking world, demonstrating their level of Chinese proficiency in the communicative modes

(interpersonal, interpretive, and presentational) and the five goal areas (Communication, Cultures, Connections, Comparisons, and Communities).

### AP Chinese V

Prerequisite(s):
A. AP Chinese IV
B. Contract

Credit: One (state)

Using age-appropriate activities, Level 5 students master novice tasks, expand their ability to perform intermediate tasks, and develop their ability to perform the tasks of the advanced language learner. The advanced language learner, when dealing with events of the concrete world, should:

(A) Participate fully in casual conversations in culturally appropriate ways.
(B) Explain, narrate, and describe in past, present, and future time when speaking and writing.
(C) Understand main ideas and most details of material on a variety of topics when listening and reading.
(D) Write coherent paragraphs.
(E) Cope successfully in problematic social and survival situations.
(F) Achieve an acceptable level of accuracy of expression by using knowledge of language components, including grammar; and
(G) Apply knowledge of culture when communicating.

### French I

Prerequisite(s): None

Credit: One (state)

This course is an introduction to the French language that provides students with opportunities to develop language proficiency and to communicate in French. Student's practice listening, speaking, reading, and writing skills using new vocabulary and structures. Additionally, students acquire an awareness of the culture of the French-speaking world and make comparisons to their own culture. Connections are made to other disciplines through the French language and culture. Opportunities are provided to use the French language both in and outside of school.

### French II

Prerequisite(s):
A. French I

Credit: One (state)

This course starts with a review of language, concepts, and skills that were introduced in French I. French 2 builds and extends on communication skills already acquired. Students increase fluency in speaking and reading comprehension and further develop written communication. There is also continued study in the culture of the French-speaking world and the comparison to the student's culture. Connections are made to other disciplines through the French language and culture. Opportunities are provided to use the French language both in and outside of school.

### French III

Prerequisite(s):
A. French II

Credit: One (state)

This course starts with a review of language, concepts, and skills that were introduced in French II. French III continues developing vocabulary and more complex language structures. Emphasis is placed on reading comprehension and writing skills. Students use the French language to expand the study of French-speaking cultures, history, art, and literature.

### Alief AAC French III

Prerequisite(s):
A. French II
B. Contract

Credit: One (state)

Alief AAC French III focuses on the same essential knowledge and skills as French III with added emphasis on communication and written skills, cultural analysis, and literary study.

### AP French IV (Language)

Prerequisite(s):
A. French III or Alief AAC French III — Credit: One (state)
B. Contract

This course follows the College Board Advanced Placement Program for the French Language AP Exam. Students continue to develop a high degree of competency in reading, writing, listening, and speaking. Emphasis is placed on organization and writing of compositions. This course prepares students for the College Board Advanced Placement French Language Examination.

### Spanish I

Prerequisite(s): None — Credit: One (state)

This course is an introduction to the Spanish language that provides students with opportunities to develop language proficiency and to communicate in Spanish. Student's practice listening, speaking, reading, and writing skills using new vocabulary and structures. Additionally, students acquire an awareness of the culture of the Spanish-speaking world and make comparisons to their own culture. Connections are made to other disciplines through the Spanish language and culture. Opportunities are provided to use the Spanish language both in and outside of school.

### Spanish II

Prerequisite(s):
A. Spanish I — Credit: One (state)

This course starts with a review of language, concepts, and skills that were introduced in Spanish I. Spanish 2 builds and extends on communication skills already acquired. Students increase fluency in speaking and reading comprehension and further develop written communication. There is also continued study in the culture of the Spanish-speaking world and the comparison to the student's culture. Connections are made to other disciplines through the Spanish language and culture. Opportunities are provided to use the Spanish language both in and outside of school.

### Spanish I / II Spanish for Spanish Speakers

Prerequisite(s):
A. Oral and written placement test in Spanish and interview with a Spanish teacher; (Students must complete both semesters to receive credit for Spanish I/II.) — Credit: Two (state)

This course is designed for native Spanish speakers who have oral language skills in Spanish. Students develop and refine their language skills by focusing on formal oral communication, reading comprehension, writing, and grammar.

### Spanish III

Prerequisite(s):
A. Spanish II — Credit: One (state)

This course starts with a review of language, concepts, and skills that were introduced in Spanish II. Spanish III continues developing a more extensive vocabulary and conversational Spanish. Students continue to develop and practice more complex language structures. Emphasis is placed on reading comprehension and writing skills. Students use the Spanish language to expand the study of Spanish-speaking countries, their cultures, history, art, and literature.

### Alief AAC Spanish III

Prerequisite(s):

A. Spanish II Credit: One (state)
B. Contract

Alief AAC Spanish III focuses on the same essential knowledge and skills as Spanish III with added emphasis on communication and written skills, cultural analysis, and literary study.

### AP Spanish IV (SNSP)

Prerequisite(s):
A. Native Spanish-speaker Background; Credit: One (state)
B. Oral and written placement test in Spanish and interview with a Spanish teacher.
C. Open Enrollment Contract may be waived.

This course follows the College Board Advanced Placement Program for the Spanish Language AP Exam. Identified Spanish native-speakers improve their command of Spanish communicative skills that strengthen accuracy and fluency. Students expand their vocabulary and comprehension through reading authentic sources in Spanish, such as newspapers, magazine articles, and literature. This course prepares students for the College Board Advanced Placement Spanish Language Examination.

### AP Spanish IV (Language)

Prerequisite(s):
A. Spanish III or Alief AAC Spanish III Credit: One (state)
B. Contract

This course follows the College Board Advanced Placement Program for the Spanish Language AP Exam. Students develop a command of Spanish with strong communicative skills that include accuracy and fluency. Students expand their vocabulary and comprehension through reading authentic sources in Spanish, such as newspapers, magazine articles, and literature. This course prepares students for the College Board Advanced Placement Spanish Language Examination.

### AP Spanish V (Literature)

Prerequisite(s):
A. AP Spanish IV (Language) or Credit: One (state)
B. AP Spanish IV Language (SNSP) or a score of 3, 4, or 5 on the AP Spanish Language Exam
C. Contract

This course follows the College Board Advanced Placement Program for the Spanish Literature AP Exam. Students are introduced to a comprehensive and diverse list of literature written in Spanish. Students will reflect, analyze, and discuss the novels, stories, and poetry in the Spanish language. This course prepares students for the College Board Advanced Placement Spanish Literature Examination.

### AP Spanish VI (Literature)

Prerequisite(s):
A. AP Spanish V (Literature), AP Spanish V (SNSP), or a score of 3, 4 or 5 on the AP Examination. Credit: one (state)
B. Contract

This course follows the College Board Advanced Placement Program for Spanish Literature. Students continue with a comprehensive and diverse list of literature written in Spanish. Students will reflect, analyze, and discuss the literature read in Spanish. This course prepares students for the College Board Advanced Placement Spanish Literature Examination.

### Special Topics in Language and Culture

Credit: One (state)
Prerequisite:
A. Successful Completion of Level I of another LOTE course, with approval of:

(1) The student's level I LOTE classroom teacher, the principal or designee, and the student's parent or person standing in parental relation who determine that the student is not likely to be successful in a level II LOTE course.
(2) The student's admission, review, and dismissal (ARD) committee (if the student receives special education services under the Texas Education Code (TEC), Chapter 29, Subchapter A; or
(3) The committee established for the student under Section 504, Rehabilitation Act of 1973 (29 United States Code, §794) if the student does not receive special education services under the TEC, Chapter 29, Subchapter A, but is covered by the Rehabilitation Act of 1973.

In the Special Topics in Language and Culture course, students demonstrate novice level communication skills acquired in a LOTE level I course, develop a greater understanding of other cultures, make connections to other disciplines, draw comparisons between languages and cultures, and effectively engage in global communities. Students enhance their personal and public lives, and meet the career demands of the 21st century, by gaining insight into other world languages and cultures. Students become aware of multiple perspectives and means of expression, which lead to an appreciation of difference and diversity.

### American Sign Language I (Offered through Distance Learning)

Prerequisite(s): None Credit: One (state)

American Sign Language I is an introduction to the language and the culture. The main emphasis is on communication while developing receptive and productive skills. The student will explore vocabulary, grammar, and conversational skills using basic signing and fingerspelling techniques, and will be exposed to activities and exercises that help him understand the culture of deaf and hard-of-hearing people. The expected outcome of this course will be developing novice mid proficiency. This course is conducted in ASL (without voice) a significant amount of time. **NOTE: This course is an ONLINE course and will be completed outside of the school day.** Students choosing this course should be able to: keep on task independently; work independently; manage time and tasks well; read, understand, & follow written instructions; communicate clearly in written formats; enjoy working in virtual groups; produce work and projects digitally; and respond to feedback and instruction in written formats.

### American Sign Language II (Offered through Distance Learning)

Prerequisite(s):
A. American Sign Language I Credit: One (state)

American Sign Language II continues to develop communicative skills. The major emphasis is on developing receptive and productive language skills. Expansion of vocabulary, grammatical structures and conversational skills continues, and further exploration of Deaf Culture will be addressed and explored. The expected outcome of this course will be developing novice high proficiency. This course is conducted in ASL (without voice) a significant amount of time. **NOTE: This course is an ONLINE course and will be completed outside of the school day.** Students choosing this course should be able to: keep on task independently; work independently; manage time and tasks well; read, understand, & follow written instructions; communicate clearly in written formats; enjoy working in virtual groups; produce work and projects digitally; and respond to feedback and instruction in written formats.

### Latin I (Offered through Distance Learning)

Prerequisite(s): None Credit: One (state)

Latin I is an introduction to the Latin language and to the Romans who spoke it. Basic grammar, syntax, and vocabulary are addressed in connection with their Latin root forms; however, contemporary meanings and correct usage are emphasized. **NOTE: This course is an ONLINE course and will be completed outside of the school day.** Students choosing this course should be able to: keep on task independently; work independently; manage time and tasks well; read, understand, & follow written instructions; communicate clearly in written formats; enjoy working in virtual groups; produce work and projects digitally; and respond to feedback and instruction in written formats.

### Latin II (Offered through Distance Learning)

Prerequisite(s):

A. Latin I Credit: One (state)

Latin II stresses the development of accurate reading of Latin literature and history. It expands the use of grammatical constructions and vocabulary and begins the development of accurate translation. Language learning techniques will be developed. Culturally related activities of selected regions/countries will be explored. **NOTE: This course is an ONLINE course and will be completed outside of the school day.** Students choosing this course should be able to: keep on task independently; work independently; manage time and tasks well; read, understand, & follow written instructions; communicate clearly in written formats; enjoy working in virtual groups; produce work and projects digitally; and respond to feedback and instruction in written formats.

**German I (Offered through Distance Learning)**
Prerequisite(s): None Credit: One (state)

German I is an introduction to German language and culture. Students, in this course, will develop listening, speaking, writing skills, and reading proficiency on topics dealing with the everyday life of a student. Students will be guided in recognizing the interrelationships of between cultures and will be able to identify cultural perspectives and practices of the German speaking world. The student will learn to express himself using an ever-increasing vocabulary, present-tense verbs, articles, and adjectives. Grammar is introduced and practiced in innovative and interesting ways with a variety of learning styles in mind. The expected outcome of this course is developing novice mid proficiency. This course is conducted in German for a significant amount of time. **NOTE: This course is an ONLINE course and will be completed outside of the school day.** Students choosing this course should be able to: keep on task independently; work independently; manage time and tasks well; read, understand, & follow written instructions; communicate clearly in written formats; enjoy working in virtual groups; produce work and projects digitally; and respond to feedback and instruction in written formats.

**German II (Offered through Distance Learning)**
Prerequisite(s):
A. German I Credit: One (state)

German II continues to introduce students to German language and culture. Students, in this course, will continue to develop listening, speaking, writing skills, and reading proficiency on topics expanded to include life outside of school and in the real world. Students will be guided in recognizing the interrelationships of between cultures and will be able to identify cultural perspectives and practices of the German speaking world. The student will learn to express himself using an ever-increasing vocabulary, past-tense verbs, demonstrative articles, and adjectives. Grammar is introduced and practiced in innovative and interesting ways with a variety of learning styles in mind. The expected outcome of this course is developing novice mid-high proficiency. This course is conducted in German for a significant amount of time. **NOTE: This course is an ONLINE course and will be completed outside of the school day.** Students choosing this course should be able to: keep on task independently; work independently; manage time and tasks well; read, understand, & follow written instructions; communicate clearly in written formats; enjoy working in virtual groups; produce work and projects digitally; and respond to feedback and instruction in written formats.

**German III (Offered through Distance Learning)**
Prerequisite(s):
A. German II Credit: One (state)

German III introduces students to content-based thematic learning. Students, in this course, will continue to learn and practice successful communication through listening, speaking, writing, and reading proficiency as they work with real-life issues, topics, and concerns in specific contexts. Use of applicable resources will allow local and global cultural perspectives within each context. The student, in this course, will be supported as they expand his abilities to express himself using an ever-increasing vocabulary, present-tense verbs, articles, and adjectives. Grammar is introduced and practiced in innovative and interesting ways with a variety of learning styles in mind. The expected outcome of this course is developing intermediate low-mid proficiency. This course is conducted predominantly in German. **NOTE: This course is an ONLINE course and will be completed outside of the school day.** Students choosing this course should be able to: keep on task independently; work independently; manage time and tasks well; read, understand, & follow written instructions; communicate

clearly in written formats; enjoy working in virtual groups; produce work and projects digitally; and respond to feedback and instruction in written formats.

### Chinese I (Offered through Distance Learning)

Prerequisite(s): None Credit: One (1) state credit

This course introduces the Chinese language. Students will achieve novice level skills in the domains of listening, speaking, reading, and writing, with primary focus on developing listening and speaking skills. The course includes the TEKS for Languages Other Than English and the goals of communication, cultures, connections, comparisons, and communities. **NOTE: This course is an ONLINE course and will be completed outside of the school day.** Students choosing this course should be able to: keep on task independently; work independently; manage time and tasks well; read, understand, & follow written instructions; communicate clearly in written formats; enjoy working in virtual groups; produce work and projects digitally; and respond to feedback and instruction in written formats.

### Chinese II (Offered through Distance Learning)

Prerequisite(s):
A. Chinese I Credit: One (1) state credit

In this course students will expand their knowledge of the Chinese language, continuing to develop listening and speaking skills and introducing more reading and writing skills. The aim is for students to achieve a high novice or intermediate level of proficiency. The course includes the TEKS for Languages Other Than English and the goals of communication, cultures, connections, comparisons, and communities. **NOTE: This course is an ONLINE course and will be completed outside of the school day.** Students choosing this course should be able to: keep on task independently; work independently; manage time and tasks well; read, understand, & follow written instructions; communicate clearly in written formats; enjoy working in virtual groups; produce work and projects digitally; and respond to feedback and instruction in written formats.

### Chinese III (Offered through Distance Learning)

Prerequisite(s):
A. Chinese II Credit: One (1) state credit

This course provides practice in the four skills of listening, speaking, reading, and writing in Chinese. Students continue to develop proficiency in the Chinese language with an emphasis on written and verbal communication skills and building cultural understanding. The course requires students to demonstrate the intermediate level of Chinese proficiency in the communicative modes (interpersonal, interpretive, and presentational) and the five goal areas (communication, cultures, connections, comparisons, and communities). **NOTE: This course is an ONLINE course and will be completed outside of the school day.** Students choosing this course should be able to: keep on task independently; work independently; manage time and tasks well; read, understand, & follow written instructions; communicate clearly in written formats; enjoy working in virtual groups; produce work and projects digitally; and respond to feedback and instruction in written formats.

### French I (Offered through Distance Learning)

Prerequisite(s): None Credit: One (1) state credit

This course is an introduction to the French language that provides students with opportunities to develop language proficiency and to communicate in French. Student's practice listening, speaking, reading, and writing skills using new vocabulary and structures. Additionally, students acquire an awareness of the culture of the French-speaking world and make comparisons to their own culture. Connections are made to other disciplines through the French language and culture. Opportunities are provided to use the French language both in and outside of school. **NOTE: This course is an ONLINE course and will be completed outside of the school day.** Students choosing this course should be able to: keep on task independently; work independently; manage time and tasks well; read, understand, & follow written instructions; communicate clearly in written formats; enjoy working in virtual groups; produce work and projects digitally; and respond to feedback and instruction in written formats.

**French II (Offered through Distance Learning)**
Prerequisite(s):
A. French I Credit: One (1) state credit

This course starts with a review of language, concepts, and skills that were introduced in French I. French 2 builds and extends on communication skills already acquired. Students increase fluency in speaking and reading comprehension and further develop written communication. There is also continued study in the culture of the French-speaking world and the comparison to the student's culture. Connections are made to other disciplines through the French language and culture. Opportunities are provided to use the French language both in and outside of school. **NOTE: This course is an ONLINE course and will be completed outside of the school day.** Students choosing this course should be able to: keep on task independently; work independently; manage time and tasks well; read, understand, & follow written instructions; communicate clearly in written formats; enjoy working in virtual groups; produce work and projects digitally; and respond to feedback and instruction in written formats.

**French III (Offered through Distance Learning)**
Prerequisite(s):
A. French II Credit: One (1) state credit

This course starts with a review of language, concepts, and skills that were introduced in French II. French III continues developing vocabulary and more complex language structures. Emphasis is placed on reading comprehension and writing skills. Students use the French language to expand the study of French-speaking cultures, history, art, and literature. **NOTE: This course is an ONLINE course and will be completed outside of the school day.** Students choosing this course should be able to: keep on task independently; work independently; manage time and tasks well; read, understand, & follow written instructions; communicate clearly in written formats; enjoy working in virtual groups; produce work and projects digitally; and respond to feedback and instruction in written formats.

**Spanish I (Offered through Distance Learning)**
Prerequisite(s): None Credit: One (1) state credit

This course is an introduction to the Spanish language that provides students with opportunities to develop language proficiency and to communicate in Spanish. Students practice listening, speaking, reading, and writing skills using new vocabulary and structures. Additionally, students acquire an awareness of the culture of the Spanish-speaking world and make comparisons to their own culture. Connections are made to other disciplines through the Spanish language and culture. Opportunities are provided to use the Spanish language both in and outside of school. **NOTE: This course is an ONLINE course and will be completed outside of the school day.** Students choosing this course should be able to: keep on task independently; work independently; manage time and tasks well; read, understand, & follow written instructions; communicate clearly in written formats; enjoy working in virtual groups; produce work and projects digitally; and respond to feedback and instruction in written formats.

**Spanish II (Offered through Distance Learning)**
Prerequisite(s):
A. Spanish I Credit: One (1) state credit

This course starts with a review of language, concepts, and skills that were introduced in Spanish I. Spanish 2 builds and extends on communication skills already acquired. Students increase fluency in speaking and reading comprehension and further develop written communication. There is also continued study in the culture of the Spanish-speaking world and the comparison to the student's culture. Connections are made to other disciplines through the Spanish language and culture. Opportunities are provided to use the Spanish language both in and outside of school. **NOTE: This course is an ONLINE course and will be completed outside of the school day.** Students choosing this course should be able to: keep on task independently; work independently; manage time and tasks well; read, understand, & follow written instructions; communicate clearly in written formats; enjoy working in virtual groups; produce work and projects digitally; and respond to feedback and instruction in written formats.

### Spanish III (Offered through Distance Learning)

Prerequisite(s):
A. Spanish II

Credit: One (1) state credit

This course starts with a review of language, concepts, and skills that were introduced in Spanish II. Spanish III continues developing a more extensive vocabulary and conversational Spanish. Students continue to develop and practice more complex language structures. Emphasis is placed on reading comprehension and writing skills. Students use the Spanish language to expand the study of Spanish-speaking countries, their cultures, history, art, and literature. **NOTE: This course is an ONLINE course and will be completed outside of the school day.** Students choosing this course should be able to: keep on task independently; work independently; manage time and tasks well; read, understand, & follow written instructions; communicate clearly in written formats; enjoy working in virtual groups; produce work and projects digitally; and respond to feedback and instruction in written formats.

## MANUFACTURING

### Welding Program of Study

### Introduction to Welding

Prerequisite(s):
A. Grade: 9
B. Algebra I (co-requisite)

Credit: One (state)

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

### Welding I

Prerequisite(s):
A. Grades: 10-11 (List Driven – Limited Enrollment)
B. Introduction to Welding
C. Algebra I

Credit: Two (state)

Welding I provides the knowledge, skills, and technologies required for employment in metal technology systems. Students will develop knowledge and skills related to this system and apply them to personal career development. This course supports integration of academic and technical knowledge and skills. Students will reinforce, apply, and transfer knowledge and skills to a variety of settings and problems. Knowledge about career opportunities, requirements, and expectations and the development of workplace skills prepare students for future success.

### Welding II

Prerequisite(s):
A. Grades: 11-12 (List Driven – Limited Enrollment)
B. Welding I
C. Algebra I or Geometry.
D. Recommended co-requisite: Welding II Lab

Credit: Two (state)

Welding II builds on the knowledge and skills developed in Welding I. Students will develop advanced welding concepts and skills as related to personal and career development. Students will integrate academic and

technical knowledge and skills. Students will have opportunities to reinforce, apply, and transfer knowledge and skills to a variety of settings and problems. **Note: This class is offered as a Dual Credit course.**

### Practicum in Manufacturing - Welding

Prerequisite(s):

A. Grade 12 (List Driven – Limited Enrollment) Credit: Two (state)

B. A coherent sequence of career and technical education courses in the Manufacturing Career Cluster.

The Practicum in Manufacturing course is designed to give students supervised practical application of previously studied knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience. The practicum course is a paid or unpaid capstone experience for students participating in a coherent sequence of career and technical education courses in the Manufacturing Career Cluster. Dual Credit opportunity. **Note: This is a dual credit course.**

## Advanced Manufacturing/ Industrial Robotics Program of Study

### Principles of Applied Engineering

Prerequisite(s):

A. Grades: 9-10 Credit: One (state)

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

### Manufacturing Engineering I

Prerequisite(s):

A. Grades: 10-11 Credit: One (state)

B. Principles of Applied Engineering

C. Algebra I

D. Blocked with Manufacturing Engineering II

In Manufacturing Engineering Technology I, students will gain knowledge and skills in the application, design, production, and assessment of products, services, and systems and how those knowledge and skills are applied to manufacturing. Students will prepare for success in the global economy. The study of manufacturing engineering will allow students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings in a manufacturing setting.

### Manufacturing Engineering II

Prerequisite(s):

A. Grades: 10-11 Credit: One (state)

B. Manufacturing Engineering I

C. Algebra I

D. Blocked with Manufacturing Engineering I

In Manufacturing Engineering Technology II, students will gain knowledge and skills in the application, design, production, and assessment of products, services, and systems and how those knowledge and skills are applied to manufacturing. The study of Manufacturing Engineering Technology II will allow students to reinforce, apply, and transfer academic knowledge and skills to a variety of interesting and relevant activities, problems, and settings.

### Practicum in Manufacturing Engineering I

Prerequisite(s):

A. Grade 11-12 Credit: Two (state)

B. A coherent sequence of career and technical education courses in the Advanced Manufacturing/Industrial Robotics Program of Study.

The Practicum in Manufacturing Engineering course is designed to give students supervised practical application of previously studied knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience. The practicum course is a paid or unpaid capstone experience for students participating in a coherent sequence of career and technical education courses in the Manufacturing Program of Study.

### Practicum in Manufacturing Engineering II

Prerequisite(s):
A. Grade 12 Credit: Two (state)
B. A coherent sequence of career and technical education courses in the Advanced Manufacturing/ Industrial Robotics Program of Study.

The Practicum in Manufacturing Engineering II course is designed to give students supervised practical application of previously studied knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience. The practicum course is a paid or unpaid capstone experience for students participating in a coherent sequence of career and technical education courses in the Advanced Manufacturing/ Industrial Robotics

## MATHEMATICS

### Algebra I

Prerequisite(s):
A. 8th Grade Math Credit: One (state)

Algebra serves as a foundation for all higher-level mathematics courses. This course focuses on the development of functions and the understanding of functional relationships. Students study multiple representations of functions and explore the effects of parameter changes on linear, quadratic, and other nonlinear functions using appropriate technology. Students in this course must show proficiency on the State End of Course examination.

### Alief AAC Algebra I

Prerequisite(s):
A. 8th Grade Math Credit: One (state)

Students are provided with an in-depth study of Algebra. This course requires higher-level thinking, independent study, and research on special topics. Students in this course must show proficiency on the State End of Course examination.

### Geometry

Prerequisite(s):
A. Algebra I Credit: One (state)

Students investigate the principles of logic using inductive and deductive reasoning and explore properties and relationships having to do with size, shape, direction, and orientation of zero, one, two, and three-dimensional geometric figures.

### Alief AAC Geometry

Prerequisite(s):
A. Algebra I Credit: One (state)

Students are provided with an in-depth study of Geometry. This course requires higher-level thinking, independent study, and research on special topics.

### Mathematical Models with Applications

Prerequisite(s):
A. Algebra I Credit: One-half to One (state)
Students use algebraic, graphical, and geometric reasoning to recognize patterns and structure to model information and solve problems. Students model and solve real-life problems involving finance, data, chance, patterns, music, design, and science. Students use a variety of tools, representations, and technology to link modeling techniques with mathematical concepts to solve applied problems.

### Algebraic Reasoning

Prerequisite(s):
A. Algebra I Credit: One-half to One (state)

Students will build on the knowledge and skills from Algebra I and continue with the development of mathematical reasoning. Algebraic Reasoning provides a foundation for studies in subsequent mathematics courses. Students will broaden their knowledge of functions and relationships, including linear, quadratic, rational, cubic, exponential, and logarithmic functions.

### Statistics

Prerequisite(s):
A. Algebra I Credit: One-half to One (state)

Students will build on the knowledge and skills from Algebra I and 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-work situations, and data analysis.

### Algebra II

Prerequisite(s):
A. Algebra I Credit: One-half to One (state)

Students use a variety of representations, tools, and technology to model mathematical situations and solve meaningful problems involving linear, quadratic, rational, radical, conic, exponential, and logarithmic functions.

### Alief AAC Algebra II

Prerequisite(s):
A. Algebra I Credit: One-half to One (state)
Students are provided with an in-depth study of Algebra II. This course requires higher-level thinking, independent study, and research on special topics.

### Algebra III (Independent Study in Math)

Prerequisite(s):
A. Algebra I Credit: One-half to One (state)
B. Geometry
C. Algebra II

Students extend understanding of topics introduced in Algebra II to prepare for post-secondary study.

### College Preparatory Math

Prerequisites:
A. Algebra I Credit: One-half to One (state)
B. Pass STAAR EOC
C. Algebra II

College Preparatory Mathematics is a full-year course designed to prepare students for success in entry-level college courses and/or success on the Texas Success Initiative Assessment (TSIA). College Preparatory Mathematics focuses on the topics of elementary and intermediate algebra, functions, data analysis, and probability. ***Students completing both semesters and receiving a grade of at least 75 for each semester of***

*CPMC will be exempt from the TSIA math requirements for HCC.* Successful completion of the course does not guarantee admission to HCC; students must meet all other HCC entrance requirements.

### Precalculus

Prerequisites:
A. Algebra I
B. Geometry
C. Algebra II

Credit: One-half to One (state)

Students use a variety of representations, tools, and technology to investigate the properties of sequences, series, vectors, as well as polynomial, circular, and trigonometric functions, and their applications. Students continue to build on foundation concepts developed in Algebra I, Geometry, and Algebra II.

### Alief AAC Precalculus

Prerequisite(s):
A. Algebra I
B. Geometry
C. Algebra II

Credit: One-half to One (state)

Students are provided with an in-depth study of Precalculus expanded to include opportunities for higher-level thinking, independent study, and research on special topics.

### AP Statistics

Prerequisite(s):
A. Algebra I
B. Geometry
C. Algebra II

Credit: One-half to One (state)

Students are introduced to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. The topics for this course are divided into four broad conceptual themes: exploratory analysis, planning a study, probability, and statistical inference. This course is designed to prepare students for the Advanced Placement College Board Examination.

### AP Calculus AB

Prerequisite(s):
A. Algebra II
B. Precalculus

Credit: One-half to One (state)

Calculus provides an axiomatic development of the concepts of the derivative and the integral and their applications. This course also includes the study of limits and continuity. This course is designed to prepare students for the Advanced Placement College Board Examination. Upon successful performance on the AB Calculus Exam, a student may have the potential to earn the equivalent of Calculus I at the college level.

### AP Calculus BC

Prerequisite(s):
A. Algebra II
B. Precalculus

Credit: One-half to One (state)

Calculus BC is an extensive study of Calculus. The topics include all those listed under AP Calculus AB above along with the topics of infinite sequences and series, vector functions, parametrically defined functions, and elementary differential equations. This course is designed to prepare students for the Advanced Placement College Board Examination. Upon successful performance on the BC Calculus Exam, a student may have the potential to earn the equivalent of Calculus I and II at the college level.

### Strategic Learning for High School Mathematics

Prerequisite(s):
A. Grades 9-10

Credit: One (state)

B. This course may be required for students who do not meet standard on the 8th grade Math STAAR or Algebra I EOC.

*NOTE: This course is paired with Algebra I to provide support for the Algebra I STAAR End-of-Course Exam. This course will count as a state elective credit.*

This course is designed to prepare students to become strategic mathematical learners. The foundation of this course will develop concrete algebraic thinking including recognizing and analyzing patterns, studying, and representing relationships, generalizing, and analyzing outcomes. These critical understandings build context to applying algebra to solve abstract problems.

### OnRamps Discovery Precalculus: Preparation for Calculus

Prerequisite(s):
A. Geometry
B. Algebra II

Credit: One (state)

Students will deepen and extend their knowledge of functions, graphs, and equations from their high school Algebra and Geometry courses so they can successfully work with the concepts in a rigorous university-level Calculus course. This course is designed to push students well beyond "drill and kill" type exercises, with an emphasis on unpacking mathematical definitions and making logical arguments to their peers.

Each unit consists of a series of explorations designed to engage students and empower them to develop their problem-solving skills alongside the teacher. In each exploration, students will create connections with prior concepts in developing the current topic. Students will experience high-quality curriculum designed by the faculty at the University of Texas at Austin. The pedagogy of the course, Inquiry-Based Learning, encourages students to take an active role in the construction of their learning.

### OnRamps College Algebra

Prerequisite(s):
A. Algebra I
B. Geometry (recommended)

Credit: One (state)

In this course, students deepen their critical thinking skills and develop their ability to persist through challenges as they explore function families: Linear, Absolute Value, Quadratic, Polynomial, Radical, Rational, Exponential, and Logarithmic. Students analyze data algebraically and with technology while developing their knowledge of properties of functions, matrices and systems of equations, and complex numbers.

Students will experience a high-quality curriculum designed by the faculty at The University of Texas at Austin. The pedagogy of the course, Inquiry-Based Learning, encourages students to take an active role in the construction of their learning. This learning will be accomplished by abstraction, generalization, problem-solving, and modeling.

## OTHER ELECTIVES

### AVID

### AVID

Prerequisite(s):
A. Grades 9-12

Credit: One to Four (state)

AVID I – IV. This approved elective course is offered at all four grade levels through an application and interview process for enrollment. In the AVID elective class, students participate in activities that incorporate strategies focused on writing, inquiry, organization, collaboration, and reading (WICOR) to support their academic growth. Students receive instruction in motivational activities, academic survival skills, and college entry skills. Tutor-led study groups are an integral part of the learning process. Students will receive intensive support for the rigorous advanced courses in which they are also enrolled.

### COLLEGE TEST PREP

### College Test Prep
Prerequisite(s):
A. Grades 10-12 Credit: One-half (state)

The ACT/SAT College Prep course provides structure for students to master test-taking strategies in English and math for standardized tests. These include problem-solving skills, critical thinking skills, and vocabulary skills. Preparation for AP Exams is not included in the course.

## PALS

### Peer Assistance & Leadership I
Prerequisite(s):
A. Grades 11 – 12 Credit: One (state)
B. List Driven – Limited Enrollment

P.A.L. is offered as a peer helping program. Students are trained to work as peer helpers with students on their own campus as well as younger students on the elementary and middle school campuses. The class includes classroom activities as well as field experience.

### Peer Assistance and Leadership II
Prerequisite(s):
A. Grade 12 Credit: One (state)
B. List Driven – Limited Enrollment C. Completion of P.A.L. I

P.A.L. is offered as a peer helping program. Students are trained to work as peer helpers with students on their own campus as well as younger students on the elementary and middle school campuses. The class includes classroom activities as well as field experience.

## ROTC

### Air Force Junior Reserve Officers Training Corps (AFJROTC)
Prerequisite(s):
A. Grades 9 – 12 Credit: One to Four (state)

AFJROTC is a sequential four-year program that develops citizens of character dedicated to serving their nation and community. The program instills values of citizenship, service to the United States, personal responsibility, and a sense of accomplishment. AFJROTC classes count toward the Public Services Endorsement of the Foundation Graduation Program. The AFJROTC curriculum includes Aerospace Science, Leadership Education and Wellness/Physical Fitness. Aerospace Science acquaints students with the elements of aerospace and the aerospace environment. It introduces them to the principles of aircraft flight and navigation, the history of aviation, development of air power, contemporary aviation, and human requirements of flight, cultural and global awareness, the space environment, space programs, and space technology. Leadership Education develops leadership skills and acquaints students with the practical application of life skills. The leadership education curriculum emphasizes discipline, responsibility, leadership, followership, citizenship, customs and courtesies, cadet corps activities, study habits, time management, communication skills, career opportunities, life skills, financial literacy, management skills, and drill and ceremonies. The Wellness/Physical Fitness program motivates cadets to lead healthy, active lifestyles beyond program requirements and into their adult lives. AFJROTC fulfills the graduation requirement for Physical Education. AFJROTC cadets also participate in field trips, community service projects, parades, drill team competitions, color guards and academic groups. Cadets wear an Air Force uniform one day each week and are required to maintain Air Force grooming standards, including proper haircuts. Participation in AFJROTC also requires payment of a $40 non-refundable fee.

### Marine Junior Reserve Officer Training Corps (MCJROTC)
Prerequisite(s):
A. Grades 9-12 Credits: One to Four (state)

The intent of the Marine Corps JROTC Program is to develop the leadership abilities and build the character of high school students who choose to participate as JROTC cadets. The Program accomplishes this through a curriculum designed to teach participating students/cadets basic leadership tenets and skills. It also provides them with an organizational framework within which they can practice what they have been taught. They develop greater self-awareness through increased self-discipline and self-respect. The result is the creation of young citizens imbued with patriotism and a deeper understanding of their responsibilities to country, community, school, families, and friends. The curriculum is divided into five categories: Leadership; Citizenship; Personal Growth and Responsibility; Public Service and Career Exploration; and General Military Subjects. It is designed for a four-year period at traditional high schools consisting of 9th through 12th grades.

### Navy Junior Reserve Officers Training Corps (NJROTC)

Prerequisite(s):
A. Grades 9 – 12 Credit: One to Four (state)

NJROTC is a sequential four-year program that develops citizens of character dedicated to serving their nation and community. The program instills values of citizenship, service to the United States, personal responsibility, and sense of accomplishment. NJROTC educates and trains cadets in citizenship; promotes community service; instills a sense of responsibility, character, and self-discipline; and provides instruction in Naval Science fundamentals. Students are also introduced to military customs and courtesies, wellness and fitness, basic drill and ceremonies, effective communications, management, leadership opportunities and practical life skills. Cadets participate in parades, summer leadership academies, drill team competitions, color guards, orientation visits to colleges and universities, military balls, and academic competition.

## TEEN LEADERSHIP

### Teen Leadership

Prerequisite(s):
A. Grades 9 – 12 Credit: One-half (state)

To be successful leaders, students must develop skills and principles. The Leadership course provides instruction in communication skills, technical writing, and organizational skills. Students will be given the opportunity for public speaking and communication with others and will be challenged to develop principles that will be the foundation for their lives.

## SCIENCE

### Biology
### Adopted 2020

Prerequisite(s):
A. Grades 9-11 Credit: One (state)

This lab-oriented course involves the study of topics such as: 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 while integrating the science and engineering practices (SEPs) and recurring themes and concepts (RTCs).

### Alief AAC Biology I
### Adopted 2020

Prerequisite(s):
A. Grades 9-11 Credit: One (state)

This rigorous lab-oriented course adds independent research to an in-depth study of topics such as: 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 while integrating the science and engineering practices (SEPs) and recurring themes and concepts (RTCs).

## Integrated Physics and Chemistry
## Adopted 2020

Prerequisite(s):
A. Grades 9-10 Credit: One (state)

This course integrates the disciplines of physics and chemistry through the study of the topics of motion, waves, and energy transformations, properties of matter, changes in matter, and solution chemistry. Students conduct field and laboratory investigations, use scientific methods during investigations, and make informed decisions, using critical thinking and scientific problem solving while integrating the science and engineering practices (SEPs) and recurring themes and concepts (RTCs).

## Chemistry I
## Adopted 2020

Prerequisite(s):
A. Grades 10-12 Credit: One (state)
B. Algebra I
C. Concurrent enrollment in 2nd year of Math

This lab-oriented course covers topics such as: characteristics of matter; energy transformations during physical and chemical changes; atomic structure; periodic table of elements; stoichiometry; behavior of gases; bonding; nuclear fusion and nuclear fission; oxidation-reduction reactions; chemical equations; solutes; properties of solutions; acids and bases; and chemical reactions. Students investigate how chemistry is an integral part of our daily lives while integrating the science and engineering practices (SEPs) and recurring themes and concepts (RTCs).

## Alief AAC Chemistry I
## Adopted 2020

Prerequisite(s):
A. Grades 10-12 Credit: One (state)
B. Algebra I
C. Concurrent enrollment in 2nd year of Math

This lab- oriented course offers in-depth independent research and covers topics such as: characteristics of matter; energy transformations during physical and chemical changes; atomic structure; periodic table of elements; stoichiometry; behavior of gases; bonding; nuclear fusion and nuclear fission; oxidation-reduction reactions; chemical equations; solutes; properties of solutions; acids and bases; and chemical reactions. Students investigate how chemistry is an integral part of our daily lives while integrating the science and engineering practices (SEPs) and recurring themes and concepts (RTCs).

## Physics I
## Adopted 2020

Prerequisite(s):
A. Grades 9-12 Credit: One (state)
B. Algebra I

This lab-oriented course investigates the physical laws of nature, including laws of motion, forces, energy, thermodynamics, waves, light, electricity, magnetism, and simple modern physics while integrating the science and engineering practices (SEPs) and recurring themes and concepts (RTCs).

## Anatomy and Physiology
Prerequisite(s):
A. Grades 10-12 Credit: One (state)
B. Biology I

C. Chemistry, IPC, or Physics

*NOTE: This course is recommended for students pursuing the Health Science Program of Study.

This lab-oriented 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.

### Honors Anatomy and Physiology

Prerequisite(s):
A. Grades 11-12 Credit: One (state)
B. Biology I
C. Chemistry, IPC, or Physics

*NOTE: This course is recommended for students pursuing the Health Science Program of Study.

This rigorous lab-oriented 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 while doing independent research and applications.

### Aquatic Science
### Adopted 2021

Prerequisite(s):
A. Grades 10-12 Credit: One (state)
B. Biology
C. Recommended Prerequisite(s): IPC or co-enrollment in either course.

This course includes students studying the interactions of biotic and abiotic components in aquatic environments, including natural and human 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. Moreover, students acquire knowledge about how the properties of water and fluid dynamics affect aquatic ecosystems and various ecosystems while conducting investigations and observations of aquatic environments.

### Astronomy
### Adopted 2021

Prerequisite(s):
A. Grades 11-12 (Recommended) Credit: One (state)
B. Biology
C. IPC or Chemistry

This lab-oriented course involves students focusing on patterns, processes, and relationships among astronomical objects in our universe. Students acquire basic astronomical knowledge and supporting evidence about sun-Earth-Moon relationships, the solar system, the Milky Way, the size and scale of the universe, and the benefits and limitations of exploration. Moreover, Students conduct laboratory and field investigations to support their developing conceptual framework of our place in space and time.

### Engineering Design and Problem Solving

Prerequisite(s):
A. Grades 11-12 Credit: One (state)
B. Algebra I and Geometry
C. At least one credit in a level 2 or higher course in the Science, Technology, Engineering, or Math Career Cluster

This course emphasizes the creative process of solving problems by identifying needs and then devising solutions. The solution may be a product, technique, structure, or process depending on the problem. The course reinforces and integrates skills learned in previous mathematics and science courses and emphasizes solving problems, moving from well-defined toward more open-ended, with real-world application where students will apply critical-thinking skills to justify a solution from multiple design options. Additionally, the course promotes interest in and understanding of career opportunities in engineering while stimulating students' ingenuity, intellectual talents, and practical skills in devising and evaluating solutions to engineering design problems. Moreover, it fosters an awareness of the social and ethical implications of technological development.

### Environmental Systems
**Adopted 2021**

Prerequisite(s):
A. Grades 10–12 Credit: One (state)
B. Biology
C. IPC, Chemistry, or co-enrollment in either course

This lab and process-oriented course involves students conducting laboratory and field investigations, using scientific methods during investigations, and making informed decisions using critical thinking and scientific problem solving. Students study a variety of topics that 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, natural changes in the environment, and human activities that impact the natural environment.

### Forensics

Prerequisite(s):
A. Grades 11-12 Credit: One (state)
B. Biology
C.IPC, Chemistry, or Physics

This a survey course that introduces students to the application of science to law. Students learn terminology and procedures related to the collection and examination of physical evidence using scientific processes performed in a field or laboratory setting. Students also learn the history and the legal aspects of forensic science.

### Medical Microbiology

Prerequisite(s):
A. Grades 10-12 Credit: One (state)
B. Biology I
C. Chemistry I (may be concurrent)
D. One credit in a course from the Health Science Career Cluster

In this lab-oriented course, students explore the microbial world by studying topics such as pathogenic and non-pathogenic microorganisms, laboratory procedures, identifying microorganisms, drug-resistant organisms, and emerging diseases. Moreover, students explore the role of microbes in infectious disease, the relationships between microbes and health maintenance, and advances in modern medicine.

### Pathophysiology

Prerequisite(s):
A. Grades 11-12 Credit: One (state)
B. Biology and Chemistry
C. Anatomy and Physiology (*recommended)*
D. At least one credit in a level 2 or higher course in the Health Science Career Cluster

This lab-oriented 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.to study diseases and the processes that cause disease.

### Scientific Research and Design

Prerequisite(s):
A. Grades 11-12 Credit: One (state)
B. Biology I, Chemistry, IPC, or Physics
C. Must meet the 40% laboratory and fieldwork requirement.

NOTE: Students may repeat this course with different course content for up to three (3) credits)
ADDITIONAL NOTE: This course is used for Dual Credit courses other than OnRamps.

This research-based course is a broad-based course designed to allow districts and schools considerable flexibility to develop local curriculum to supplement any program of study or coherent sequence. The course has the components of any rigorous scientific or engineering program of study from the problem identification, investigation design, data collection, data analysis, formulation, and presentation of the conclusions. All these components are integrated with the career and technical education emphasis of helping students gain entry-level employment in high-skill, high-wage jobs and/or continue their education.

### Specialized Topics in Science
**Adopted 2021**

Prerequisite(s):
A. Grades 10-12 Credit: One (state)
B. one credit of science

NOTE: Students may repeat this course with different course content for up to three (3) credits)
ADDITIONAL NOTE: This course is used for Dual Credit courses other than OnRamps.

In this course, students can develop greater understanding of science content beyond what is taught in other Texas Essential Knowledge and Skills-based science courses while utilizing science and engineering practices. Students understand the value and role of curiosity in any discipline of science. The specialized topic of study may originate from local or global phenomena, student interest, or teacher specialties. The emphasis of study may vary such as theoretical science, citizen science, science investigations, science careers, specialized disciplines of science, designing innovations, the ethics of science, or history of science.

### AP Biology

Prerequisite(s):
A. Grades 10-12 Credit: One (state)
B. Biology I
C. Chemistry

Students examine in-depth molecular and cellular biology, structure and function, population biology, and use independent research in a lab-oriented Advanced Placement course that follows the guidelines of the College Board.

### AP Chemistry II

Prerequisite(s):
A. Grades 11-12 Credit: One (state)
B. Chemistry I
C. Algebra II

This lab-oriented Advanced Placement course examines in-depth structure of matter, kinetic theory of gases, chemical equilibrium, chemical kinetics, basic thermodynamics, and independent research. ***This course follows the outline of the Advanced Placement Chemistry exam*** that follows the guidelines of the College Board.

### AP Environmental Science

Prerequisite(s):
A. Grades 11-12 Credit: One (state)
B. Biology
C. Chemistry I (may be concurrent) or IPC
D. Algebra I

This lab-oriented Advanced Placement course includes the in-depth study of 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; relationships between carrying capacity and changes in populations and ecosystems; and changes in environments. Students conduct prescribed field and laboratory investigations, use scientific methods during investigations, and analyze complex problems. **This course follows the outline of the Advanced Placement Environmental Science exam and follows the guidelines of the College Board.**

**AP Physics I: Algebra-Based**
Prerequisite(s):
A. Grades 10-12 Credit: One (state)
B. Algebra I and Geometry
C. Co-requisite: a mathematics course listed in §74.12(b)(2)(B) of this title (relating to Foundation High School Program).

This rigorous lab-oriented course discusses kinematics, dynamics with Newton's Laws, circular motions, universal law of gravitation, simple harmonic motion, impulse, linear momentum, collisions, work, energy, rotational motion, electrostatics, DC circuits, mechanical waves, and sound. ***This is an algebra-based course that follows the outline of the Advanced Placement Physics I exam*** **that follows the guidelines of the College Board.**

**AP Physics II: Algebra-Based**
Prerequisite(s):
A. Grades 10-12 Credit: One (state)
B. AP Physics I
C. Co-requisite : Precalculus *(Recommended)*

This rigorous lab-oriented course discusses thermodynamics, ideal gases, kinetic theory, fluid statics, electrostatics, DC and RC circuits, magnetism, electromagnetic induction, geometric and physical optics, quantum physics, and nuclear physics. ***This is an algebra-based course that follows the outline of the Advanced Placement Physics II exam*** **that follows the guidelines of the College Board.**

**AP Physics C: Mechanics/ AP Physics C: Electricity and Magnetism**
Prerequisite(s):
A. Grades 11-12 Credit: One (state)
B. Chemistry I (may be concurrent)
C. Physics I **or** AP Physics I and II

This rigorous lab-oriented course is a second-year physics course that is calculus based (the equivalent of a calculus- based college physics course often slated for engineering and science majors) and is recommended for advance placement for the college-bound student. It explores principles of mechanics, electricity, and magnetism through laws of change, force interactions, fields, and conservation. This course is broken into two semesters: Mechanics (fall semester) and Electricity and Magnetism (spring semester). By taking this course, students are eligible to take the AP Physics C: Mechanics exam and the AP Physics C: Electricity and Magnetism exam to potentially obtain college credit that follows the guidelines of the College Board.

**OnRamps Biology I + Lab-Dual Enrollment**
Prerequisite(s):
A. Grades 11-12 Credit: One (state)
B. Biology I or Alief AAC Biology
C. Chemistry

D. Application (required)

The focus of this introductory biology course is molecular and cellular biology. This year-long dual credit course with 4.0 hours of college credit from the University of Texas explores three big ideas of biology: the structure and function of biomolecules, the flow of energy through living systems via photosynthesis and cellular respiration, and how genetic information is expressed and transmitted both within and between cells. This course has a required lab component.

**Note:** College Credit Transferability
TCCNs: BIOL 1306 + BIOL 1106
UT BIO 311C + UT BIO 106M
4 College Credits (3 for lecture, 1 for lab)

**OnRamps Chemistry I + Lab-Dual Enrollment**
Prerequisite(s):
A. Grades 11-12 Credit: One (state)
B. Algebra I
C. Chemistry or Alief AAC Chemistry
C. Application (required)

This year-long dual credit course with 4.0 hours of college credit from the University of Texas is known as The Principles of Chemistry I course and addresses the nature of matter, energy, chemical reactions, and chemical thermodynamics. Students will learn about descriptive chemistry of matter in the natural world, as well as compositional and reaction stoichiometry of chemical compounds. This course has a required lab component.

**Note:** College Credit Transferability
TCCNs: CHEM 1311 + CHEM 1111
UT Course Codes: CH 301 + CH 104M
4 College Credits (3 for lecture, 1 for lab)

**OnRamps Physics 1: Mechanics, Heat, and Sound + Lab- Dual Enrollment**
Prerequisite(s):
A. Grades 11-12 Credit: One (state)
B. Algebra I and Geometry and Algebra II
C. Precalculus *(Recommended)*
D. Application (required)

This year-long dual credit course with 4.0 hours of college credit from the University of Texas is also known as Mechanics, Heat, and Sound and introduces big ideas in physics, such as Newtonian mechanics (including motion, force, energy, and rotation), as well as solid and fluid mechanics, oscillations, waves, sound, and heat. This course has a required lab component.

**Note:** College Credit Transferability
TCCNs: PHYS 1301 + PHYS 1101
UT Course Codes: PHY 302K + PHY 102M
4 College Credits (3 for lecture, 1 for lab)

**OnRamps Physics 2: Electromagnetism, Optics, and Nuclear Physics + Lab-Dual Enrollment**
Prerequisite(s):
A. Grades 11-12 Credit: One (state)
B. Algebra I and Geometry and Algebra II
C. Precalculus *(Recommended)*
D. OnRamps Physics I or Physics I or AP Physics I or Dual Credit Physics
D. Application (required)

This is the second course of year-long On Ramps Physics with 3.0 hours of college credit from the University of Texas is also known as Electromagnetism, Optics, and Nuclear Physics. The course provides 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. Moreover, 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. Students will develop critical thinking, empirical, and quantitative skills through analysis of physical situations and problem solving. This course has a required lab component.

**Note:** College Credit Transferability
TCCNs: PHYS 1302
UT Course Codes: PHY 302L
4 College Credits (3 for lecture, 1 for lab)

## SOCIAL STUDIES

### World Geography
Prerequisite(s):
A. Grades 9 – 12 Credit: One (state)

Provides a study of people, places, and environments at local, regional, national, and international scales from the spatial and ecological perspectives of geography.

### Alief AAC World Geography
Prerequisite(s):
A. Grades 9 – 12 Credit: One (state)

Provides a study of world geography, with emphasis on skills necessary for success in the Advanced Placement social studies program. The course provides opportunities for students to analyze and interpret data, communicate effectively, and improve study and test-taking skills.

### AP Human Geography
Prerequisite(s):
A. Grades 9 – 12 Credit: One (state) (substitutes for World Geography)

The purpose of the AP course in Human Geography is to introduce students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of the Earth's surface. Students employ spatial concepts and landscape analysis to analyze human social organization and its environmental consequences. They also learn about the methods and tools geographers use in their science and practice.

### Elective AP Human Geography
Prerequisite(s): None Credit: One-half elective credit (state)

The purpose of the AP course in Human Geography is to introduce students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of the Earth's surface. Students employ spatial concepts and landscape analysis to analyze human social organization and its environmental consequences. They also learn about the methods and tools geographers use in their science and practice.

### World History Studies
Prerequisite(s):
A. Grades 9 – 12 Credit: One (state)

World History Studies is a survey of the history of humankind. The major emphasis is on the study of significant people, events, and issues from the earliest times to the present. Traditional historical points of reference in world history are identified as students analyze important events and issues in western civilization as well as in civilizations in other parts of the world.

### Alief AAC World History
Prerequisite(s):

A. Grades 9 – 12 Credit: One (state)

Provides a study of world history, with emphasis on skills necessary for success in the Advanced Placement social studies program. The course provides opportunities for students to analyze and interpret data, communicate effectively, and improve study and test-taking skills.

### AP World History

Prerequisite(s):
A. Grades 10 – 12 Credit: One (state) (substitutes for World History)

The purpose of the AP World History course is to develop greater understanding of the evolution of global processes and contacts in different types of human societies. This understanding is advanced through a combination of selective factual knowledge and appropriate analytical skills. The course highlights the nature of changes in global frameworks and their causes and consequences, as well as comparisons among major societies.

### United States History Studies Since 1877

Prerequisite(s):
A. Grade 11 Credit: One (state)

In United States History Studies Since 1877, historical content focuses on the political, economic, and social events and issues related to industrialization and urbanization, major wars, domestic and foreign policies, and reform movements, including civil rights. Students examine the impact of geographic factors on major events and eras and analyze their causes and effects. Students examine the impact of constitutional issues on American society, evaluate the dynamic relationship of the three branches of the federal government, and analyze efforts to expand the democratic process.

### AP United States History

Prerequisite(s):
A. Grades 11 Credit: One (state) (substitutes for US History)
B. May be taken in lieu of regular United States History to meet graduation requirements.

The AP U.S. History course is designed to provide students with the analytic skills and factual knowledge necessary to deal critically with the problems and materials in U.S. history. The program prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by full-year introductory college courses. Students should learn to assess historical materials—their relevance to a given interpretive problem, reliability, and importance—and to weigh the evidence and interpretations presented in historical scholarship.

### United States History Dual Credit

Prerequisite(s):
A. Grades 11 Credit: One (state) (substitutes for US History)
B. May be taken in lieu of regular United States History to meet graduation requirements.

The AP U.S. History course is designed to provide students with the analytic skills and factual knowledge necessary to deal critically with the problems and materials in U.S. history. The program prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by full-year introductory college courses. Students should learn to assess historical materials—their relevance to a given interpretive problem, reliability, and importance—and to weigh the evidence and interpretations presented in historical scholarship.

### United States Government

Prerequisite(s):
A. Grades 11-12 Credit: One-half (state)
B. U.S. History

In United States Government, the focus is on the principles and beliefs upon which the United States was founded and, on the structure, functions, and powers of government at the national, state, and local levels. Students learn major political ideas and forms of government in history.

### AP United States Government and Politics

Prerequisite(s):
A. Grades 11-12 Credit: One-half (state) (substitutes for Government)
B. U.S. History
C. May be taken in lieu of regular United States Government to meet graduation requirements.

United States Government and Politics is designed to give students an analytical perspective on government and politics in the United States. This course includes both the study of general concepts used to interpret U.S. government and politics and the analysis of specific examples. It also requires familiarity with the various institutions, groups, beliefs, and ideas that constitute U.S. government and politics.

### United States Government Dual Credit

Prerequisite(s):
A. Grades 11-12 Credit: One-half (state) (substitutes for Government)
B. U.S. History
C. May be taken in lieu of regular United States Government to meet graduation requirements.

This course covers the origin and development of the U.S. Constitution, structure and powers of the national government including the legislative, executive, and judicial branches, federalism, political participation, the national election process, public policy, civil liberties, and civil rights. This course is not eligible for semester exam exemptions; the college final is required. *Not all Dual Credit courses are offered at all campuses.

### Government OnRamps- Dual Enrollment

Prerequisite(s):
A. Grades 11-12 Credit: One-half (state) (substitutes for Government)
B. U.S. History
C. May be taken in lieu of regular United States Government to meet graduation requirements.
D. Application (required)
Note: College credit: Three

This course introduces the American principles for self-government established by the founds 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.

### Economics with Emphasis on the Free Enterprise System and Its Benefits

Prerequisite(s):
A. Grades 11-12 Credit: One-half (state)
B. U.S. History

Economics with Emphasis on the Free Enterprise System and Its Benefits focuses on the basic principles concerning production, consumption, and distribution of goods and services (the problem of scarcity) in the United States and a comparison with those in other countries around the world. The course also incorporates instruction in personal financial literacy.

### Personal Financial Literacy and Economics

Prerequisite(s):
A. Grades 12 Credit: One-half (state) (substitutes for Economics)
B. U.S. History

This course provides instruction in the knowledge and skill in personal financial education and economics. By the end of this course, students will demonstrate the ability to anticipate and address financial challenges as these challenges occur over their lifetime. In addition, students are introduced to common economic and personal financial planning terms and concepts. As a result of learning objective concepts and integrating subjective information, students gain the ability to lead productive and financially self-sufficient lives. **Note: This course meets the requirement for the half-credit economics requirement for high school graduation.**

### OnRamps Economics-Dual Enrollment

Prerequisite(s):
A. Grades 12 Credit: One-half (state)
B. Algebra 2
College credit: Three
C. Application (required)

Economics introduces students to the principles, models, and conditions that influence how consumers, businesses, governments, and workers make and evaluate economic decisions.

### AP Macroeconomics

Prerequisite(s):
A. Grades 11-12 Credit: One-half (state) (substitutes for Economics)
B. US History
C. May be taken in lieu of regular Economics to meet graduation requirements.

The AP course in macroeconomics gives students a thorough understanding of the principles of economics that apply to an economic system. Such a course places particular emphasis on the study of national income and price-level determination, and develops students' familiarity with economic performance measures, the financial sector, stabilization policies, economic growth, and international economics.

### AP Microeconomics

Prerequisite(s):
A. AP Macroeconomics or AP Economics/Free Enterprise Credit: One-half (state)
B. Grades 11-12

The AP course in microeconomics gives students a thorough understanding of the principles of economics that apply to the functions of individual decision makers, both consumers and producers, within the economic system. It places primary emphasis on the nature and functions of product markets and includes the study of factor markets and of the role of government in promoting greater efficiency and equity in the economy.

### Sociology

Prerequisite(s):
A. Grades 10 – 12 Credit: One-half (state)

Sociology is an introductory study in social behavior and organization of human society. This course will describe the development of the field as a social science by identifying methods and strategies of research leading to an understanding of how the individual relates to society and the ever-changing world. Students will also learn the importance and role of culture, social structure, socialization, and social change today.

### Psychology

Prerequisite(s):
A. Grades 10 – 12 Credit: One-half (state)

In Psychology, students study the science of behavior and mental processes. Students examine the full scope of the science of psychology such as the historical framework, methodologies, human development, motivation, emotion, sensation, perception, personality development, cognition, learning, intelligence, biological foundations, mental health, and social psychology.

### AP Psychology

Prerequisite(s):
A. Grades 10 – 12 Credit: One (state)

The AP Psychology course is designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. They also learn about the ethics and methods psychologists use in their science and practice.

### AP European History

Prerequisite(s):
A. Grades 11 – 12 Credit: One-half to One (state)
B. Successful completion of World Geography, World History, or AP Human Geography

The study of European history since 1450 introduces students to cultural, economic, political, and social developments that played a fundamental role in shaping the world in which they live. In addition to providing a basic narrative of events and movements, the goals of AP European History are to develop (a) an understanding of some of the principal themes in modern European history, (b) an ability to analyze historical evidence and historical interpretation, and (c) an ability to express historical understanding in writing.

### Personal Financial Literacy

Prerequisite(s):
A. Grade 12 Credit: One-half (state)

This course provides instruction in the knowledge and skill in personal financial education. By the end of this course, students will have learned about savings and investing, how to set financial goals, protect wealth with basic insurance, create a budget, and complete the application for federal student aid provided by the United States Department of Education.

## The following courses are offered as Special Topics in Social Studies:

### Social Studies Research Methods

Prerequisite(s):
A. Grades 9 –12 Credit: One-half each class up to Two (state)

In Social Studies Research Methods, an elective course, students conduct advanced research on a selected topic in social studies using qualitative and/or quantitative methods of inquiry. Students present their research results and conclusions in written and visual or oral format. The course is designed to be conducted in either classroom or independent settings.

### Social Studies Advanced Studies

Prerequisite(s):
A. Grades 9 – 12 Credit: One-half each class up to Two (state)

In Social Studies Advanced Studies, an elective course, students conduct in-depth research, prepare a product of professional quality, and present their findings to appropriate audiences. Students, working independently or in collaboration with a mentor, investigate a problem, issue, or concern; research the topic using a variety of technologies; and present a product of professional quality to an appropriate audience.

### Special Topics in Social Studies

Prerequisite(s):
A. Grades 9 – 12 Credit: One-half each class up to Two (state)

In Special Topics in Social Studies, an elective course, students are provided the opportunity to develop a greater understanding of the historic, political, economic, geographic, multicultural, and social forces that have shaped their lives and the world in which they live. Students will use social science knowledge and skills to engage in

rational and logical analysis of complex problems using a variety of approaches, while recognizing and appreciating diverse human perspectives. Students may take this course with different course content for a maximum of two (state) credits.

### American History for New Americans

Prerequisite(s):
A. Grades 9 – 12 Credit: One-half (state)
B. Selection process

This survey course of early United State History (1607-1865) provides students an opportunity to explore basic concepts of U.S. political history, including our English political heritage and the founding documents.

### Academic Decathlon Prep

Prerequisite(s):
A. Grades 10 – 12 Credit: One-half (state)
B. List Driven – Limited Enrollment

Academic Decathlon team members conduct research and collectively teach and/or learn from each other in the ten different subject areas included in the national competition.

### Street Law

Prerequisite(s): None Credit: One-half to One (state)

This course provides students an opportunity to understand their legal rights and responsibilities, learn about everyday legal problems, analyze, evaluate, and in some situations, resolve legal disputes.

### Success in Social Studies

Prerequisite(s): None Credit: One-half each class up to Two (state)

This course provides accelerated instruction in the knowledge and skills necessary for success in High School Social Studies courses that are assessed by the End of Course Test (STAAR). By the end of this course students will have reviewed the assessed curriculum in United States History.

### AP Social Studies – Skills for Success

Prerequisite(s):
A. Grades 9-12 Credit: One-half each class up to Two (state)

This course will help students develop the reading, writing, and analysis skills necessary for success in Advanced Placement social studies courses and on Advanced Placement social studies exams.

### Holocaust and Genocide Studies

Prerequisite(s):
A. Grades 10-12 Credit: One-half each class up to Two (state)
B. Successful completion of World Geography, World History, or AP Human Geography

This course is an in-depth study of the Holocaust, from the rise of anti-Semitism through the post-World War II period. Students will also study other 20th and 21st century genocidal events such as Armenia, Ukraine, Cambodia, the former Yugoslavia, Rwanda, and Sudan. By the end of the course, the students will have the skills to critically evaluate history and identify the roles that individuals, governments and international organizations play in creating that history. Students will also develop citizenship skills that empower them to act.

### Current Events

Prerequisite(s):
A. Grades 10-12 Credit: One-half (state)
B. Successful completion of World Geography, World History, or AP Human Geography

Gives the student an understanding of current issues in many areas of a political, social, and economic nature. The course emphasizes research done by the students, identifying bias, and effectively communicating opinions. Topics chosen are very fluid in their nature, meaning that the topics and the amount of coverage on the topics will fluctuate on any given day, week, or month depending on topics currently in the media.

### U.S. History through Film

Prerequisite(s):
A. Grades 10-12 Credit: One-half (state)
B. Successful completion of World Geography, World History, or AP Human Geography

Students will study modern American History through the medium of film. Students will examine the historiography of the birth of the United States, Slavery, and the Civil War, the Birth of Modern American, the Great depression, World War I and World War II, the Holocaust, the Cold War/Post-War Era/Vietnam War, the Civil Rights Movement, and the War on Terrorism. The course will concentrate on film appreciation and the study of cinematography.

### Ethnic Studies: African American Studies

Prerequisite(s):
A. Grade 10-12 Credit: One (state)
B. Successful completion of World Geography, World History, or AP Human Geography

This course provides instruction for students to learn about the history and cultural contributions of African Americans. This course is designed to assist students in understanding issues and events from multiple perspectives. This course develops an understanding of the historical roots of African American culture, especially as it pertains to social, economic, and political interactions within the broader context of United States history. It requires an analysis of important ideas, social and cultural values, beliefs, and traditions. Knowledge of past achievements provides citizens of the 21st century with a broader context within which to address the many issues facing the United States.

### Ethnic Studies: Mexican American Studies

Prerequisite(s):
A. Grade 10-12 Credit: One (state)
B. Successful completion of World Geography, World History, or AP Human Geography

This course provides instruction for students to learn about the history and cultural contributions of Mexican Americans. Students will explore history and culture from an interdisciplinary perspective. They will have opportunities to interact with relevant film, literature, art, and other media. The course emphasizes developments in the twentieth and twenty-first centuries, but students will also engage with developments prior to the twentieth century.

## SPEECH

### Communications Applications

Prerequisite(s):
A. Grade 9 – 12 Credit: One-half (state)

This course provides students with opportunities to develop all levels of speech communications skills for preparation of presentations, development of skills for academic, business, and social situations.

### Visual Media

Prerequisite(s):
A. Grades 9 – 12 Credit: One-half (state)

This course will explore the history and function of visual media in society. Students will develop skills in understanding, analyzing, and using media intelligently to participate fully in academic, social and democratic situations.

### Public Speaking I

Prerequisite(s):
A. Grades 9 – 12 Credit: One (state)

This full-year speech course will develop students' confidence and poise through various speaking activities. Students will use the library, learn effective outlining and analysis techniques, develop their organizational skills, and use technology to enhance presentations.

### Public Speaking II

Prerequisite(s):
A. Grades 10 – 12 Credit: One-half to One (state)
B. Public Speaking I

This course will provide for the further improvement and refinement of public speaking skills. Students will participate in speech contests.

### Public Speaking III

Prerequisite(s):
A. Grades 10 – 12 Credit: One-half to One (state)
B. Public Speaking II

This course will provide for continuing development of competencies and skills learned in preceding public speaking courses. Students will be required to prepare for and participate in speech contests.

### Advanced Public Speaking III

Prerequisite(s):
A. Grades 10 – 12 Credit: One-half to One (state)
B. Public Speaking II

This course will provide students with opportunities to refine areas of special interest in public speaking. Students will be required to participate in speech contests and produce an academic performance portfolio.

### Oral Interpretation I

Prerequisite(s):
A. Grades 9 – 12 Credit: One-half to One (state)

This course will train students to analyze and interpret literature for performance in the areas of poetry, prose, dramatic, humorous and duet acting. Students will participate in speech contests.

### Oral Interpretation II

Prerequisite(s):
A. Grades 10 – 12 Credit: One-half to One (state)
B. Oral Interpretation I

This course provides for further study in techniques of the interpretation of the literature. Students will participate in speech contests.

### Oral Interpretation III

Prerequisite(s):
A. Grades 10 – 12 Credit: One-half to One (state)
B. Oral Interpretation II

This course will provide students with opportunities to refine areas of special interest in oral interpretation. Students will be required to participate in speech contests and produce an academic performance portfolio.

### Advanced Oral Interpretation III

Prerequisite(s):
A. Grades 10 – 12 Credit: One-half to One (state)
B. Oral Interpretation II

This course will provide students with opportunities to refine areas of special interest in oral interpretation. Students will be required to participate in speech contests and produce an academic performance portfolio.

### Debate I

Prerequisite(s):
A. Grades 9 – 12 Credit: One-half to One (state)

This course will introduce basic debate skills: logic and reasoning, research, organization, and topic analysis. It will introduce students to the debate process: building cases, planning defense of cases, and using effective language and delivery. Students will participate in speech contests.

### Debate II

Prerequisite(s):
A. Grades 10 – 12 Credit: One-half to One (state)
B. Debate I

This course will provide for further improvement and refinement of debate skills. Students will participate in speech contests.

### Debate III

Prerequisite(s):
A. Grades 10 – 12 Credit: One-half to One (state)
B. Debate II

This course will provide for continuing development of competencies and skills developed in preceding debate courses. Students will be required to prepare for and participate in speech contests.

### Advanced Independent Study Oral Interpretation

Prerequisite(s):
A. Grade 11 – 12 Credit: One-half to One (state)
B. Two & One-half credits of Speech

This course provides students opportunities to work independently in areas of special interest, under the supervision of the teacher.

### Advanced Independent Study – Debate

Prerequisite(s):
A. Grade 11 – 12 Credit: One-half to One (state)
B. Two & One-half credits of Speech

This course provides students opportunities to work independently in areas of special interest, under the supervision of the teacher.

### Advanced Independent Study – Public Speaking

Prerequisite(s):
A. Grade 11 – 12 Credit: One-half to One (state)
B. Two & One-half credits of Speech

This course provides students opportunities to work independently in areas of special interest, under the supervision of the teacher.

### Advanced Debate III

Prerequisite(s):
A. Grades 10 – 12 Credit: One-half to One (state)
B. List Driven – Limited Enrollment

This course will provide students with opportunities to refine areas of special interest in debate. Students will be required to participate in speech contests and produce an academic performance portfolio.

## STEM-ENGINEERING
## SCIENCE, TECHNOLOGY, ENGINEERING AND MATH

### Engineering Program of Study

### Principles of Applied Engineering

Prerequisite(s):
Grades: 9-10 Credit: One (state)

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

### Engineering Design and Presentation I

Prerequisite(s):
A. Grades: 10-11 Credit: One (state)
B. Algebra I and Principles of Applied Engineering.

Engineering Design and Presentation I is a continuation of knowledge and skills learned in Principles of Applied Engineering. Students enrolled in this course will demonstrate knowledge and skills of the design process as it applies to engineering fields using multiple software applications and tools necessary to produce and present working drawings, solid model renderings, and prototypes. Students will use a variety of computer hardware and software applications to complete assignments and projects. Through implementation of the design process, students will transfer advanced academic skills to component designs. Additionally, students explore career opportunities in engineering, technology, and drafting and what is required to gain and maintain employment in these areas.

### Engineering Design and Presentation II

Prerequisite(s):
A. Grades: 11-12 Credit: Two (state)
B. Algebra I and Geometry, Principles of Applied Engineering and Engineering Design and Presentation

Engineering Design and Presentation II is a continuation of knowledge and skills learned in Engineering Design and Presentation I. Students enrolled in this course will demonstrate knowledge and skills of the design process as it applies to engineering fields using multiple software applications and tools necessary to produce and present working drawings, solid model renderings, and prototypes. Students will use a variety of computer hardware and software applications to complete assignments and projects. Through implementation of the design process, students will transfer advanced academic skills to component designs. Emphasis will be placed on using skills from ideation through prototyping.

### Engineering Design & Problem Solving

Prerequisite(s):
A. Grades: 11-12 Credit: One (state)
B. Geometry, Algebra II

This course is intended to stimulate students' ingenuity, intellectual talents, and practical skills in devising solutions to engineering design problems. Students use the engineering design process cycle to investigate, design, plan, create, and evaluate solutions. At the same time, this course fosters awareness of the social and ethical implications of technological development. Students will spend at least 40% of instructional time conducting engineering field and laboratory activities, using safe, environmentally appropriate, and ethical practices. ***This is a Career and Technical Education elective that counts as a science credit towards high school graduation. It is recommended for those students who are participating in a coherent sequence of courses from with the STEM Career Cluster.***

### Practicum in Science, Technology, Engineering, and Mathematics

Prerequisite(s):
A. Grade: 12 Credit: Two (state)
B. A coherent sequence of career and technical education courses in the STEM Career Cluster
C. Algebra I and Geometry
D. Recommended prerequisite(s): two (STEM) Career Cluster credits

Practicum in STEM is designed to give students supervised practical application of previously studied knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience. The practicum course is an unpaid capstone experience for students participating in a coherent sequence of career and technical education courses in the STEM Career Cluster.

### Practicum in STEM – IDEAS Academy

Prerequisite(s):
A. Grade: 12 (List Driven – Limited Enrollment) Credit: Two (state)
B. A coherent sequence of career and technical education courses in the STEM Career Cluster
C. Algebra I and Geometry

The process technology program is offered through Alief ISD and Houston Community College as a dual-credit option for students interested in gaining knowledge, skills, and certification in the field of Process Technology. The program provides students a chance to gain insight to industry recruitment perspectives and gain soft-skills training. Students can earn credit hours toward an Associate of Applied Science (AAS) degree in Process Technology. **Note: This is a dual credit course.**

## Renewable Energy Program of Study

### AC/DC Electronics

Prerequisite(s):
A. Grades: 10-11 Credit: One (state)
B. Principles of Applied Engineering

In AC/DC Electronics, the focus is on the basic electricity principles of alternating current/direct current (AC/DC) circuits. Students will demonstrate knowledge and applications of circuits, electronic measurement, and electronic implementation. Through use of the design process, students will transfer academic skills to component designs in a project-based environment. Students will use a variety of computer hardware and software applications to complete assignments and projects. Students will also explore career opportunities, employer expectations, and educational needs in the electronics industry.

### Solid State Electronics

Prerequisite(s):
A. Grades: 11-12 Credit: One (state)
B. AC/DC Electronics

In Solid State Electronics, students will demonstrate knowledge and applications of advanced circuits, electrical measurement, and electrical implementation used in the electronics and computer industries. Students will transfer advanced academic skills to apply engineering principles and technical skills to troubleshoot, repair, and modify electronic components, equipment, and power electronic systems in a project-based environment. Additionally, students will explore career opportunities, employer expectations, and educational needs in the electronics industry.

### Engineering Design & Problem Solving

Prerequisite(s):
A. Grades: 11-12 Credit: One (state)
B. Geometry, Algebra II

This course is intended to stimulate students' ingenuity, intellectual talents, and practical skills in devising solutions to engineering design problems. Students use the engineering design process cycle to investigate, design, plan, create, and evaluate solutions. At the same time, this course fosters awareness of the social and ethical implications of technological development. Students will spend at least 40% of instructional time conducting engineering field and laboratory activities, using safe, environmentally appropriate, and ethical practices. **This is a Career and Technical Education elective that counts as a science credit towards high school graduation. It is recommended for those students who are participating in a coherent sequence of courses from with the STEM Career Cluster.**

## Programming and Software Development Program of Study

### Fundamentals of Computer Science

Prerequisite(s):
A. Grade: 9 Credit: One (state)
B. Computer Literacy required, or Successful demonstration of Computer Literacy Skills required.
C. Algebra I required, Geometry recommended, IA prerequisite(s) to IB

The students will learn computer programming with emphasis on structured programming, algorithms, data structures and problem solving.

### AP Computer Science Principles

Prerequisite(s):
A. Grades 10 – 11 Credit: One (state)
B. Fundamentals of Computer Science
C. Computer Literacy required, or successful demonstration of Computer Literacy Skills required.
D. Successful completion of Algebra & Geometry required, Concurrent enrollment in advanced level math recommended, IA prerequisite(s) for IB

Development of regular Computer Science IA & IB topics on an advanced level and an accelerated pace. Emphasis will be on algorithm development and preparation for the Advanced Placement A test. Students will be encouraged to take the A portion of the Advanced Placement test.

### Computer Science II

Prerequisite(s):
A. Grades 11 – 12 Credit: One (state)
B. Successful completion of Computer Science IA & IB required, IIA prerequisite(s) for IIB

Advanced computer programming expands the scope of Computer Science I. It follows the study for the AB form of Advanced Placement Computer Science.

### Computer Science III

Prerequisite(s):
A. Grades 11 – 12 Credit: One (state)
B. Advanced Independent Study, Successful completion of Advanced Placement Computer Science II required.

Study of advanced programming topics, including object-oriented programming and the development of software.

## TRANSPORTATION, DISTRIBUTION AND LOGISTICS

### Automotive Program of Study

**Principles of Transportation Systems**
Prerequisite(s):
A. Grades: 9-10 Credit: One (state)

Introduction to Transportation Technology includes knowledge of the major automotive systems and the principles of diagnosing and servicing these systems. Transportation Technology includes applicable safety and environmental rules and regulations. In Transportation Technology, students will gain knowledge and skills in the repair, maintenance, and diagnosis of transportation 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 Basics**
Prerequisite(s):
A. Grades: 10-11 (List Driven – Limited Enrollment) Credit: One (state)
B. Co-requisite: Energy and Power of Transportation Systems
C. Class is blocked with Energy Power and Transportation

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 [diagnosing and serving] these systems. Automotive Basics [I] 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,

**Energy, Power, and Transportation Systems**
Prerequisite(s):
A. Grades: 10-11 (List Driven – Limited Enrollment) Credit: One (state)
B. Corequisite: Automotive Basics
C. Class is blocked with Automotive Basics

Energy and Power of Transportation Systems will prepare students to meet the expectations of employers in this industry and to interact and relate to others. Students will learn the technologies used to provide products and services in a timely manner. The businesses and industries of the Transportation, Distribution, and Logistics Career Cluster are rapidly expanding to provide new career and career advancement opportunities. Performance requirements will include academic and technical skills. Students will need to understand the interaction between various vehicle systems, including engines, transmissions, brakes, fuel, cooling, and electrical. Students will also need to understand the logistics used to move goods and services to consumers, as well as the components of transportation infrastructure.

**Automotive Technology I**
(Maintenance and Light Repair)
Prerequisite(s):
A. Grades: 11-12 (List Driven – Limited Enrollment) Credit: Two (state)
B. Principles of Transportation Systems, Energy Power & Transportation, and Automotive Basics.

Automotive Technology I: Maintenance and Light Repair includes knowledge of the major automotive systems and the principles of diagnosing and servicing these systems. This course [Automotive Technology I] includes applicable safety and environmental rules and regulations. In Automotive Technology I-Maintenance and Light Repair, students will gain knowledge and skills in the repair, maintenance, and diagnosis of vehicle systems. This study will allow students to reinforce, apply, and transfer academic knowledge and skills to a variety of

interesting and relevant activities, problems, and settings. The focus of this course is to teach safety, tool identification, proper tool use, and employability. All tasks and skills taught conform to ASE standards. Prior to enrollment in this course a student will need to have proven basic automotive skills and teacher approval.

### Automotive Technology II

(Automotive Service)
Prerequisite(s):
A. Grade: 12 (List Driven – Limited Enrollment) Credit: Two (state)
B. Automotive Technology I: Maintenance and Light Repair
Automotive Technology II: Automotive Service includes knowledge of the major automotive systems and the principles of diagnosing and servicing these systems. [Advanced] Automotive Technology II: Automotive Service includes applicable safety and environmental rules and regulations. In this course [Advanced Automotive Technology II], 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. The focus of this course is to teach safety, tool identification, proper tool use, and employability. All tasks and skills taught conform to ASE standards. Prior to enrollment in this course a student will need to have proven basic automotive skills and teacher approval.

## Drone (Unmanned Flight) Program of Study

### Introduction to Aerospace and Aviation

Prerequisite(s):
A. Grade 9 Credit: One (state)

Students will discover the history of aerospace and the scientific forces involved that make the aviation industry possible.

### Introduction to Unmanned Aerial Vehicles (UVA)

Prerequisite(s):
A. Grade 10 Credit: One (state)
B. Introduction to Aerospace and Aviation

Students will explore the aspects that affect aircrafts, how aircrafts are constructed, and the FAA (Federal Aviation Administration) rules and regulations behind the drone industry.

### Digital Electronics- Drone I

Prerequisite(s):
A. Grade 11 Credit: One (state)
B. Introduction to Aerospace and Aviation
C. Introduction of Unmanned Aerial Vehicles (UVA)

Students will focus on the digital and engineering side of Aviation and drone technology while exploring video programming and career readiness.

### Practicum in Manufacturing Engineering- Drone II

Prerequisite(s):
A. Grade 12 Credit: One (state)
B. Introduction of Aerospace and Aviation

Students will visit and explore real world industry operations and standards. Students will be required to make industry connections and create portfolios demonstrating industry experience and skills.