Howe High School

FOUNDATION
HIGH SCHOOL PLAN

Course Guide

HOWE INDEPENDENT SCHOOL DISTRICT ADMINISTRATION
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HOWE HIGH SCHOOL
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Non-Discrimination Statement

It is the policy of Howe Independent School District not to discriminate on the basis of race, color, national origin, sex or handicap in any programs, services or activities as required by Title VI of the Civil Rights Act of 1964, as amended; Title IX of the Education Amendments of 1972; and Section 504 of the Rehabilitation Act of 1973, as amended.

For information about your rights, or grievance procedures, contact the HISD Assistant Superintendent, 105 W. Tutt Street, Howe, Texas 75459, 903-532-3202.

Es norma de Howe Independent School District de no discriminar por motivesde raza, color, origen nacional, sexo o impedimento, en sus programas, servicios o activades, tal como lo requiren el Título VI de la Ley de Derechos Civiles de 1964, según enmienda; el Titulo IX de las Enmiendas en la Educacion, de 1972, y la Seccion 504 de la Ley de Rehabilitacion de 1973, según enmienda.

*** The contents of the Howe High School Course Guide are subject to change based on legislative updates, the current fiscal status of the school district, and/or other factors.

INTRODUCTION

When the 83rd Texas Legislature passed House Bill 5 into law, high school graduation plans changed for all students who entered high school during the 2014-15 school year and thereafter. The bill provides more flexibility for high school students to pursue either higher education or a career. House Bill 5 established a single graduation plan, the Foundation High School Program (FHSP). Students will also have the opportunity to build on the FHSP by earning Endorsements, Performance Acknowledgements, and a Distinguished Level of Achievement. Students will need to declare their preferred endorsement areas, in writing, by the beginning of their 9th grade year. Students will be able to change their endorsement at any time. An endorsement is basically an opportunity for students to select a “major” during their high school career. An endorsement can be earned by taking additional courses in Career and Technical Education (CTE) or by taking additional non-CTE courses specified within the endorsement requirements.

The purpose of this guide is to help parents and students have a greater understanding of the Foundation High School Program (FHSP) graduation plan, Endorsements and Programs of Study.

NOTE: From time to time, the State Board of Education and the Texas Education Agency will release additional clarification and information which will be incorporated into this guide when it is made available to the district.

GRADUATION PLAN OVERVIEW

Foundation High School Program with Endorsement (26 credits)

The Foundation High School Program (FHSP) is the recommended graduation plan. The FHSP allows students to earn endorsements in a specified Program of Study (POS). Students entering high school in the fall of 2014-2015 and thereafter are required to meet the requirements of the FHSP to receive a high school diploma as specified below. Students must select an endorsement prior to the end of their 9th grade year.

Endorsements

Students may earn an endorsement in the following areas:

- Science, Technology, Engineering, & Math (STEM)
- Business & Industry
- Public Service
- Arts & Humanities
- Multi-disciplinary

Enhancements

Additionally, a student may earn the Distinguished Level of Achievement and/or a Performance Acknowledgment for outstanding performance. The Distinguished Level of Achievement must be earned to be admitted to a Texas public university under the Top 10 percent automatic admission law.

Distinguished Level of Achievement

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

Performance Acknowledgements

- Dual credit coursework
- Bilingualism and Bi-literacy
- Advanced Placement exam
- Earning a nationally or internationally recognized business or industry license

Foundation High School Program (25 credits)

This 25-credit option is the lowest graduation plan available. A student may elect to graduate without an endorsement under the Foundation High School Program after the student's sophomore year. Changing to this graduation plan will require parent and administrative approval in writing. Parents and students need to understand that graduating on this plan may not meet college or university entrance requirements.

FOUNDATION HIGH SCHOOL PROGRAM
GRADUATION REQUIREMENTS

FOUNDATION WITH ENDORSEMENT	FOUNDATION NO ENDORSEMENT This program requires administrative approval
English (4 credits): ❑ English I ❑ English II ❑ English III ❑ Advanced English Course	**English (4 credits):** ❑ English I ❑ English II ❑ English III ❑ Advanced English Course
Math (4 credits): ❑ Algebra I ❑ Geometry ❑ Algebra II ❑ Advanced Math Course	**Math (3 credits):** ❑ Algebra I ❑ Geometry ❑ Advanced Math Course
Science (4 credits): ❑ Biology ❑ IPC or an advanced science course ❑ Advanced Science Course ❑ Advanced Science Course	**Science (3 credits):** ❑ Biology ❑ IPC or an advanced science course ❑ Advanced Science Course
Social Studies (4 credits): ❑ World Geography ❑ World History ❑ U.S. History ❑ U.S. Government/Economics	**Social Studies (4 credits):** ❑ World Geography ❑ World History ❑ U.S. History ❑ U.S. Government/Economics
Fine Arts (1 credit): ❑ Band ❑ Art ❑ Theater	**Fine Arts (1 credit):** ❑ Band ❑ Art ❑ Theater
Language Other Than English (2 credits): ❑ Spanish I and II	**Language Other Than English (2 credits):** ❑ Spanish I and II
Physical Education (1 credit): ❑ Physical Education ❑ Athletics ❑ Band (2 marching seasons)	**Physical Education (1 credit):** ❑ Physical Education ❑ Athletics ❑ Band (2 marching seasons)
HHS Required Courses (1 credit): ❑ Health (0.5 credits) ❑ Speech (0.5 credits)	**HHS Required Courses (1 credit):** ❑ Health (0.5 credits) ❑ Speech (0.5 credits)
Electives (1 Credits)	**Electives (6 Credits)**
Endorsement (4 credits)	**Endorsement (none)**
26	**25**

SELECTING AN ENDORSEMENT

The Foundation High School Program offers students the choice of an endorsement or Program of Study. This is similar to a student selecting a major in college. HB 5 requires that all students, upon entering 9th grade, indicate in writing the endorsement he or she intends to earn. This selection will be completed during the course registration process in the spring.

With the aid of parents and school personnel, students will choose a program of study which will align with one of the five endorsements. HHS has identified a sequence of four (4) courses that correspond with the Program of Study. During the course selection process, high school representatives will assist students in the development of a Personal Graduation Plan. Students will use this plan as they select courses for the subsequent years of high school. Although students are required to select an endorsement during the registration process, they are also allowed numerous opportunities to change their endorsement throughout their high school career.

The following charts have been developed to assist both students and parents as the course selections are made. When selecting courses for the following year, students should choose elective courses that correspond with the chosen endorsement / program of study (sequence of courses).

ENDORSEMENTS

ENDORSEMENTS	PROGRAMS OF STUDY
STEM	❑ Math ❑ Science ❑ Math/Science Combination ❑ Engineering (Robotics)
Business and Industry	❑ Agriculture: **Animal Science** ❑ Agriculture: **Food Science & Technology** ❑ Agriculture: **Applied Agricultural Engineering** (Welding/Mech) ❑ AAVTC: **Design & Multimedia Arts** – **Graphic Design** ❑ AAVTC: **Design & Multimedia Arts - Yearbook**
Public Service	❑ Education & Training: Teaching & Training
Arts and Humanities	❑ Social Studies ❑ Spanish ❑ LOTE ❑ Performing and Visual Arts
Multidisciplinary Studies	A coherent sequence or series of courses selected from one of the following: ❑ Option A ❑ Option B ❑ Option C

PROGRAMS OF STUDY

SCIENCE, TECHNOLOGY, ENGINEERING AND MATH (STEM) ENDORSEMENT

Program of Study	Sequence of Courses
Math	A total of five credits in mathematics by successfully completing Algebra I, geometry, Algebra II and two additional mathematics courses for which Algebra II is a prerequisite
Science	A total of five credits in science by successfully completing biology, chemistry, physics, and two additional science courses
Science/Math	In addition to Algebra II, chemistry, and physics, a coherent sequence of three additional math and/or science credits.
Engineering (Robotics)	Principles of Applied Engineering Manufacturing Engineering Technology I (Robotics I) Engineering Design & Presentation I (Robotics II) Engineering Design & Problem Solving (Robotics III)**
	**This course satisfies a high school science graduation requirement.

BUSINESS & INDUSTRY ENDORSEMENT

Program of Study	Sequence of Courses
Agriculture: Animal Science	Principles of Agriculture, Food, & Natural Resources Livestock Production Veterinary Medical Applications **OR** Practicum in AFNR (2 credits) Advanced Animal Science** **OR** Practicum in AFNR (2 credits)
Agriculture: Food Science & Technology	Principles of Agriculture, Food, & Natural Resources Food Technology (EVEN YEARS) **OR** Food Processing (ODD YEARS) Practicum in AFNR (2 credits)
Agriculture: Applied Agricultural Engineering (Mechanics/Welding)	Principles of Agriculture, Food, & Natural Resources Agricultural Mechanics & Metal Technologies Agricultural Structures Design & Fabrication **OR** Practicum in AFNR (2 Cr) Agricultural Equipment Design & Fab **OR** Practicum in AFNR (2 Cr)
AAVTC: Design & Multimedia Arts – Graphic Design	Principles of Arts, A/V Technology, & Communication Digital Design & Media Production Graphic Design I Graphic Design II
AAVTC: Design & Multimedia Arts -	Principles of Arts, A/V Technology, & Communication Digital Design & Media Production Journalism (Yearbook) Advanced Journalism (Yearbook)
**This course satisfies a high school science graduation requirement.	

PUBLIC SERVICE ENDORSEMENT

Program of Study	Sequence of Courses
Education & Training	Principles of Education & Training Human Growth & Development Instructional Practices (Practicum)
***Health Science/Nursing**	Principles of Health Science Medical Terminology Health Science Theory/ Health Science Clinical Practicum in Health Science

*Offered to students beginning with the class of 2027.

ARTS AND HUMANITIES ENDORSEMENT

Program of Study	Sequence of Courses
Social Studies	World Geography World History US History Government and Economics Psychology and Sociology
Spanish	A total of four (4) levels of the same language in a language other than English
LOTE	Two (2) levels of the same language in a language other than English and two levels of a different language in a language other than English
Performing and Visual Arts	A coherent sequence of four credits by selecting courses from one or two categories or disciplines in fine arts (i.e. band, theater, art)

MULTI-DISCIPLINARY ENDORSEMENT

Program of Study	Sequence of Courses
Option A	Four (4) advanced courses that prepare a student to enter the workforce successfully or postsecondary education without remediation from within one endorsement area or among endorsement areas that are not in a coherent sequence
Option B	Four (4) credits in each of the four foundation subject areas to include English IV and chemistry and/or physics
Option C	Four (4) credits in advanced placement, International Baccalaureate, or dual credit selected from English, mathematics, science, social studies, economics, languages other than English, or fine arts

ADDITIONAL INFORMATION

Grade Classification
This classification is based on the number of credits actually completed. Credits earned through summer school, credit-by-exam, dual enrollment and correspondence should be on file in the counselor's office for the first day of the school year for classification purposes. A correspondence course is not considered complete until the final grade is recorded in the registrar's office. Please consult the campus principal for further clarification regarding extracurricular eligibility requirements.

9th grade: promoted/assigned to the 9th grade.
10th grade: must have completed 6 state credits.
11th grade: must have completed 12 state credits.
12th grade: must have completed 18 state credits.

Regular Courses
Regular courses provide grade-level instruction in all Texas Essential Knowledge and Skills (TEKS). These courses are designed for the college-bound as well as the career-bound student.

Honors and Advanced Placement (AP) Courses
The Advanced Placement Program, sponsored by the College Board, offers students an opportunity to take college-level courses in high school. If students take AP exams and score in an acceptable range, advanced placement credit may be awarded upon college entrance. Students should contact directors of admissions at colleges of their choice to ask about specific advanced placement policies. For further information on how much credit is offered at various schools, visit: http://www.collegeboard.com/ap/creditpolicy.

Students are encouraged to enroll in courses that prepare them for college or future educational endeavors. In order to be successful, students enrolled in Honors/AP courses must meet the following guidelines:

- Maintain an overall grade average of 80 or better in the content related course during the previous year
- Satisfactorily pass the state assessment in the content area for which Honors/AP acceptance is requested
- **Obtain recommendation from prior teacher in the content area for which Honors/AP acceptance is requested**

Summer projects may be required and must be completed prior to the due date as assigned by the teacher. The district reserves the right to remove students from Honors/AP courses after any six-weeks in which the student's grade averages fall below a 70.

Examination for Acceleration With Prior Instruction
In accordance with local policy, a student in any of grades 6–12 may be given credit for an academic subject in which he or she had some prior instruction if the student scores 70 percent on a criterion- referenced test approved by the Board for the applicable course.

The principal or designee or the attendance committee, as applicable, shall have authority to offer a student the opportunity to demonstrate mastery in a subject or to earn course credit by examination when the student has had prior instruction in a subject and when: •

1. The student is enrolling in the District from a non-accredited school [see FD];
2. The student has failed a subject or course; or
3. The student has earned a passing grade in a subject or course but has failed to earn credit because of excessive absences [see FEC].

Examinations shall assess the student's mastery of the essential knowledge and skills and shall be administered according to established district procedures.

Prior to offering a student an opportunity to demonstrate mastery or earn credit by this method, an appropriate district employee shall review the student's educational records to determine whether the student has had prior instruction in the subject or course.

Without Prior Instruction
A district shall give a student in grades 6–12 credit for an academic subject in which the student has received no prior instruction if the student scores:

1. A three or higher on a College Board advanced placement examination that has been approved by the board for the applicable course;
2. A scaled score of 50 or higher on an examination administered through the College-Level Examination Program (CLEP) and approved by the board for the applicable course; or

3. Eighty percent or above on any other criterion-referenced test approved by the board for the applicable course.

If a student is given credit in a subject on the basis of an examination on which the student scored 80 percent or higher, a district shall enter the examination score on the student's transcript and the student is not required to take an end-of-course (EOC) assessment instrument under Education Code 39.023(c) for the course.

Dual Credit and Concurrent Courses
Howe High School juniors and seniors may enroll at Grayson College while completing their high school education. Students may enroll in dual credit courses in which students may earn both college and high school credit. Students should speak with the counselor to determine which classes are eligible for dual credit.

Dual credit courses are considered a part of the student's high school class schedule when taken during their junior or senior year. Dual credit academic courses are weighted appropriately according to the GPA table found in the Howe ISD Student Handbook (see list of weighted courses). Students must meet college readiness criteria in order to enroll at Grayson College. Students who are interested in concurrent or dual enrollment must meet Grayson College enrollment and regular admission requirements. Students are responsible for all fees (tuition and laboratory) and textbook expenses.

The dual credit course will be entered into the student's schedule, and that grade will count toward GPA and class rank. Students earning a D (60-69) in a dual credit college course will receive college credit and, subsequently, high school credit for the course; however, in order to meet TEA standards, the grade reflected on the high school transcript will be changed to a 70. Although the transcript will read a 70, the original grade of 60-69 will be used to calculate high school GPA. Any **concurrent course**, one that does not count for high school credit, will **not** be entered on the student's schedule or transcript nor will it count for GPA. Other conditions and restrictions may apply to dual credit enrollment courses.

Career and Technology Education
Enrollment in career and technology education courses is open to all qualified students without regard to race, color, creed, religious affiliation, sex, or handicapping conditions.

Credit Recovery (Bulldog Success Program)
Students who need to recover credits may be eligible to participate in a credit recovery program.

Schedule Changes
Students are expected to make informed and wise decisions during the course selection process. It is important that students and parents give careful consideration to selecting courses, including alternate electives. The choices students make during course selection determine the master schedule of course offerings available. The master schedule, though never perfect, is designed to maximize student opportunities and minimize scheduling conflicts. Student schedules will not be changed to select different teachers or lunch periods or because the student received an "alternate" choice elective. Once a class schedule is formulated, the student is expected to follow that schedule.

Guidelines for Schedule Corrections
During the **first week** of classes, schedule changes will be granted for the following reasons:

- a student is in a class for which he/she has already received credit
- a student was placed in a course when the original course did not make
- a student needs to be moved to balance classes
- a student's schedule has the same course listed twice or is missing a class

Elective Changes Will Not Be Made During the School Year

Unnecessary changes compromise the student's ability to complete their endorsements and negatively impact the master schedule. Such changes cause teachers and resources to be ineffectively utilized. Students may request program changes. Examples of programs are Athletics or Band. In this case, the student is required to obtain approval from the director of the program and the director must submit it in writing to the counselor.

LIST OF WEIGHTED COURSES

The following courses qualify as advanced courses which receive weighted grade points:

- Honors English I & II
- Honors Biology
- Honors Chemistry
- Honors Physics
- Honors Geometry
- Honors Algebra 2
- Honors Pre-Calculus
- Honors Anatomy and Physiology
- Honors Geography
- Honors World History
- AP Calculus AB
- AP Environmental Science
- AP English Literature & Composition (Eng III)
- AP US History
- **Dual Credit Academic Courses**: Government, Economics, English IV, Pre-Calculus

Note: For the purpose of UIL Eligibility, HISD identifies the Dual Credit Academic Courses (Government, Economics, English IV, US History, and Pre-Calculus), AP Calculus, AP Literature & Composition, AP US History, and AP Environmental Science as advanced courses and, therefore, exempt from the "No Pass, No Play" requirements.

Additional Dual Credit Courses Offered ONLINE ONLY: Special permission is required to take more than three dual credit courses. Online DC courses do **NOT** receive weighted credit but are exempt from "No Pass, No Play" requirements due to the college grading format.

FALL (Online Classes)

16 Week Courses:

Art Appreciation 1301 - Exploration of purposes and processes of architecture, sculpture, painting, and minor arts, with analysis of elements and principles applied to visual expression. Report required.
Psychology 2301 - General Psychology is a survey of the major psychological topics, theories and approaches to the scientific study of behavior and mental processes.
8 Week Courses: (2 courses taken over 1 semester; 8 weeks each)
Intro to Criminal Justice 1301 -AND- **Fundamentals of Criminal Law 1310** (Law Enf I)

SPRING (Online Classes)

16 Week Courses:

Music Appreciation 1306 - Overview of the entire musical scene. Emphasis on mediums, forms, notation, and compositions, utilizing a listener's approach.
Intro Speech Communication 1311 - This course is designed to provide students with an overview of theories, concepts, and practice within the field of communication including interpersonal, small group, and public speaking.
8 Week Courses: (2 courses taken over 1 semester; 8 weeks each)
Crime in America 1307 (Law Enf II) -AND- **Court Systems & Practices 1306**

Dual Credit Technical Offerings: Welding, Heat & Refrigeration Technology, & Cosmetology (Classes meet at Grayson campuses IF enough students register. Personal transportation is required.)

COURSES OF STUDY

Course descriptions are designed to allow students to get a sense of what a course will cover in order to make informed decisions. Each course will cover the required TEKS as designated by TEA.

Note: HHS reserves the right to determine the minimum number of students required in order for a class to make.

ENGLISH LANGUAGE ARTS

ENGLISH I **Credit: 1.0**
Grade: 9 **Prerequisite: None**
In English I, students expand their skills in writing and reading through an integrated study of composition, including grammar and mechanics, and literature.

HONORS ENGLISH I **Credit: 1.0**
Grade: 9 **Prerequisite: Teacher Recommendation**
Honors English I is an accelerated course for students with advanced writing and reading skills and a willingness to complete rigorous homework assignments.

ENGLISH II **Credit: 1.0**
Grade: 10 **Prerequisite: English I or concurrent enrollment**
English II builds on the integrated study of composition, including grammar and mechanics, and literature.

HONORS ENGLISH II **Credit: 1.0**
Grade: 10 **Prerequisite: English I; Teacher Recommendation**
English II Pre-Advanced Placement is an accelerated course for students with advanced writing and reading skills.

ENGLISH III **Credit: 1.0**
Grade: 11 **Prerequisite: English II or concurrent enrollment**
English III includes an integrated study of composition, rhetoric, and a particular focus on college-level reading analysis across genres. The course features extensive skill instruction in both research and writing.

AP ENGLISH LITERATURE & COMPOSITION (ENG III) **Credit: 1.0**
Grade: 11 **Prerequisite: English II**
English III Advanced Placement is an accelerated course preparing students to pass the Advanced Placement Language and Composition test which may result in college credit.

ENGLISH IV **Credit: 1.0**
Grade: 12 **Prerequisite: English III or concurrent enrollment**
English IV includes an integrated study of composition, rhetoric, and a particular focus on college-level reading analysis across genres. The course features extensive skill instruction in both research and writing.

ENGLISH IV DUAL CREDIT (English 1301 & 1302) **Credit: 1.0**
Grade: 12 **Prerequisite: English III and must meet college eligibility requirements**
This course is an intensive study of and practice in writing processes, from invention and researching to drafting, revising, and editing, both individually and collaboratively. Students develop research-based expository and persuasive texts. Emphasis on effective rhetorical choices and ethical inquiry, including audience, purpose, arrangement, and style, and utilizing 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. Focus on writing the academic essay as a vehicle for learning, communicating, and critical analysis. Students are responsible for all tuition, fees, and textbook costs.

COLLEGE PREPARATORY ENGLISH **Credit: 1.0**
Grade: 12 **Prerequisite: See below**
This course is intended for 12th grade students whose performance on an EOC exam does not meet college readiness standards or whose coursework, college entrance exam, or higher education screener indicates the student is not ready for college-ready coursework. College Prep English is designed to help students meet college entrance requirements (TSI testing) and be ready for entry level college ELA coursework. Students will engage in a concentrated study of analytical reading and writing processes to

prepare for career and college opportunities. Instruction in this course will align to the Texas Career and College Readiness Standards (CCRS), the Texas Essential Knowledge and Skills (TEKS) of English IV, as well as Texas Success Initiative Framework for College Reading. **This course may count as an Advanced English credit to earn an endorsement under the Foundation High School Program. This course does NOT meet NCAA/NAIA criteria.**

MATHEMATICS

ALGEBRA I **Credit: 1.0**
Grade: 9 **Prerequisite: None**
Algebra I is a study of linear equations and inequalities with an introduction to quadratic functions, inverse variation and exponential growth. Students are encouraged to have a graphing calculator TI-84 or equivalent.

GEOMETRY **Credit: 1.0**
Grade: 9 - 10 **Prerequisite: Algebra I or concurrent enrollment**
Geometry develops the concepts of inductive and deductive reasoning and formal proofs as an approach to mathematics. Real world application of these topics will be emphasized. Students are encouraged to have a scientific calculator or graphing calculator TI-84 or equivalent.

HONORS GEOMETRY **Credit: 1.0**
Grade: 9 - 10 **Prerequisite: Algebra I; Teacher Recommendation**
Geometry Pre-Advanced Placement is an enriched geometry which moves at a faster pace and is designed to provide critical thinking and processing skills necessary to be successful in Advanced Placement Calculus. Students are encouraged to have a scientific calculator or graphing calculator TI-84 or equivalent.

ALGEBRA II **Credit: 1.0**
Grade: 10 - 12 **Prerequisite: Geometry or concurrent enrollment**
Algebra II expands on all concepts taught in Algebra I and explores quadratic, rational, logarithmic, and exponential functions. Students are encouraged to have a graphing calculator TI-84 or equivalent.

HONORS ALGEBRA II **Credit: 1.0**
Grade: 10 - 11 **Prerequisite: Geometry; Teacher Recommendation**
Algebra II Pre-Advanced Placement is an enriched Algebra II which moves at a faster pace and is designed to provide critical thinking and processing skills, necessary to be successful in Advanced Placement Calculus. Students are encouraged to have a graphing calculator TI-84 or equivalent.

MATHEMATICAL MODELS W/APPLICATIONS **Credit: 1.0**
Grade: 11 - 12 **Prerequisite: Algebra I**
Students will use mathematical models from Algebra and Geometry to solve problems from a wide variety of advanced applications in mathematical situations involving data, patterns, money, probability, and science. Students are encouraged to have a graphing calculator TI-84 or equivalent.

HONORS PRE-CALCULUS **Credit: 1.0**
Grade: 11 - 12 **Prerequisite: Algebra II; Teacher Recommendation**
Honors Pre-Calculus is an enriched study of trigonometry, elementary analysis and analytic geometry designed to provide critical processing skills necessary for success in Advanced Placement Calculus. Students are encouraged to have a graphing calculator TI-84 or equivalent.

AP CALCULUS (AB) **Credit: 1.0**
Grade: 12 **Prerequisite: Pre-Calculus**
Calculus (AB) Advanced Placement is the study of introductory differential and integral calculus. Participation in the Advanced Placement examination for a possibility of 3-hours college credit is required. Students are encouraged to have a graphing calculator TI-84 or equivalent.

STATISTICS **Credit: 1.0**
Grade: 11-12 **Prerequisite: Algebra I** **Recommended Prerequisite: Algebra II**
In Statistics, students will build on the knowledge and skills for mathematics in Kindergarten-Grade 8 and Algebra I. Students will broaden their knowledge of variability and statistical processes. Students will study sampling and experimentation, categorical and quantitative data, probability and random variables, inference, and bivariate data. Students will connect data and statistical processes to real-world situations. In addition, students will extend their knowledge of data analysis. Students are encouraged to have a graphing calculator TI-84 or equivalent.

COLLEGE PREPARATORY MATH **Credit: 1.0**
Grade: 12 **Prerequisites: Algebra I, Geometry, and an advanced Math course.**

This course is intended for 12th grade students whose performance on an EOC exam does not meet college readiness standards or whose coursework, college entrance exam, or higher education screener indicates the student is not ready for college-level coursework. College Prep Math is designed to help students meet college entrance requirements (TSI testing) and to be ready for entry level college math coursework. Students will study linear, quadratic, polynomial, rational and radical expressions, equations, and functions as well as probability and statistics. **This course may count as a 4th mathematics credit for students to earn an endorsement under the Foundation High School Program. This course does NOT meet NCAA/NAIA criteria.**

PRE-CALCULUS DUAL CREDIT (College Algebra/College Trigonometry) **Credit: 1.0**
Grade: 11 - 12 **Prerequisite: Algebra II and must meet college eligibility requirements**
The course is a study of relations and functions, including polynomial, rational, exponential, logarithmic, and special functions. Other topics include complex numbers, systems of equations and inequalities, theory of equations, progressions, the binomial theorem, proofs, and applications. Students are responsible for all transportation, books, fees, and tuition.

SCIENCE

INTEGRATED PHYSICS AND CHEMISTRY **Credit: 1.0**

Grade: 9 - 10 **Prerequisite: None**
In Integrated Physics and Chemistry, students conduct laboratory and field investigations using scientific methods while learning critical thinking skills and problem solving to make informed decisions. This course integrates the disciplines of physics and chemistry in the following topics: force, motion, energy, and matter. Basic chemistry skills such as use of periodic table, writing and balancing equations, and differentiating types of chemical reactions.

BIOLOGY **Credit: 1.0**
Grade: 9 - 10 **Prerequisite: None**
Biology is the study of life. It includes an introduction to the scientific method, cytology, genetics, botany, zoology, ecology, taxonomy, evolution, chemistry, and microbiology. Course work, lab work, and examinations will prepare students for future science courses. This course is STAAR/EOC tested and the exam and course must be passed to graduate high school.

HONORS BIOLOGY **Credit: 1.0**
Grade: 9 - 10 **Prerequisite: Teacher Recommendation**
Biology is the study of living organisms, their origins, how they survive, reproduce, change over time, and interact with each other and their environments. The Honors course places a higher priority on developing critical thinking skills by examining real world problems. The Honors curriculum examines topics with more depth and includes more advanced resource material in addition to the adopted text. Labs are more sophisticated than in the regular curriculum and students are expected to design and carry out experiments using appropriate methods and resources. This course is also STAAR/EOC tested and the exam and course must be passed to graduate high school

CHEMISTRY **Credit: 1.0**

Grade: 10 - 11 **Prerequisites: Biology and Algebra I**

Students will investigate how chemistry is an integral part of our daily lives. We will conduct laboratory investigations using scientific methods while learning critical thinking skills and problem solving to make informed decisions. Topics of study include: characteristics of matter, use of the Periodic Table, atomic theory, chemical bonding, gas laws, thermochemistry and nuclear chemistry. Mathematic calculations will be used to predict the number of reactants required to produce a required product and in predicting theoretical yield.

HONORS CHEMISTRY **Credit: 1.0**

Grade: 10 - 11 **Prerequisites: Biology and Algebra I; Teacher Recommendation**

Students will investigate how chemistry is an integral part of our daily lives. We will conduct laboratory investigations using scientific methods while learning critical thinking skills and problem solving to make informed decisions. Topics of study include: characteristics of matter, use of the Periodic Table, atomic theory, chemical bonding, gas laws, thermochemistry and nuclear chemistry. Mathematic calculations will be used to predict the number of reactants required to produce a required product and in predicting theoretical yield. Honors Chemistry will be held to higher rigor and complete relative projects each six weeks.

PHYSICS **Credit: 1.0**

Grade: 11 - 12 **Prerequisites: Algebra I & Biology; Chemistry & Geometry recommended**

This course covers the basic concepts and principles of physics. Course topics include topics in velocity, acceleration, momentum, energy, heat, waves, light, sound, electricity and magnetism. The emphasis will be on developing conceptual understanding of the laws of nature through labs, demonstrations, lectures, examples, and at-home projects, such as catapults and roller coasters.

HONORS PHYSICS **Credit: 1.0**

Grade: 11 – 12 **Prerequisites: Algebra I & Biology; Teacher Recommendation**
Recommended: Chemistry & Algebra II (concurrent enrollment)

This course covers the basic concepts and principles of physics. Course topics include topics in velocity, acceleration, momentum, energy, heat, waves, light, sound, electricity and magnetism. The emphasis will be on developing conceptual understanding of the laws of nature through labs, demonstrations, lectures, examples, and at-home projects, such as catapults and roller coasters. This course is designed to challenge the students; topics are taught at a higher level for a deeper understanding of physics.

HONORS ANATOMY AND PHYSIOLOGY OF HUMAN SYSTEMS **Credit: 1.0**

Grade: 11 – 12 **Prerequisites: Biology & Chemistry OR Physics; Teacher Recommendation** This course addresses how the human body works from the molecular and cellular level to the interconnection of its systems. Topics of study include; biological molecules, skeletal and muscular structures and functions, skin and the immune system, heart function and its vessels, digestion, oxygen and respiratory passages, genetic and infectious diseases, and embryology and the development of a fetus.

AP ENVIRONMENTAL SCIENCE **Credit: 1.0**

Grade: 11-12 **Prerequisites: Biology and Chemistry OR Physics**

This course addresses the fragile interrelationship of man and his surroundings. Emphasis is placed on environmental issues and ways to improve the coexistence between man and his environment. Topics for study include: biotic and abiotic factors of ecosystems, population studies, earth's cycles and energy flow, salt and freshwater systems, pollution, agricultural practices, energy consumption, and global change.

Note: All students are required to take the AP Exam for possible college credit.

EARTH AND SPACE SCIENCE **Credit 1.0**

Grade: 11-12 **Prerequisites: 3 years of science and mathematics (one may be taken concurrently)**

This is a capstone science course that investigates the interaction of all earth's systems. Topics for study include; space and the origin of the universe, earth's cycles and energy flow, mineral and rock keying, interactions of the earth's interior and plate tectonics, earth's historic timeline, renewable and nonrenewable energy, climate and weather, and fresh and saltwater systems.

ADVANCED ANIMAL SCIENCE **Credit: 1.0**

Grade: 11-12 **Prerequisites: Biology & Chemistry OR IPC & Chemistry; Algebra I and Geometry; Livestock Production. This course satisfies a high school science graduation requirement.**

Advanced Animal Science demonstrates principles relating to the interrelated human, scientific, and technological dimensions of animal agriculture and the resources necessary for producing domesticated animals; applies the principles of genetics and breeding to livestock improvement; examines animal anatomy and physiology in livestock species; recognizes policies and issues in animal science; discusses slaughter livestock operations; and explores methods of marketing livestock.

SOCIAL STUDIES

WORLD GEOGRAPHY **Credit: 1.0**

Grade: 9-10 **Prerequisite: None**

This course is a study of major areas of the world, the processes that shape the earth and the relationship between people and their environments.

HONORS WORLD GEOGRAPHY **Credit: 1.0**

Grade: 9-10 **Prerequisite: Teacher Recommendation**

This course is an integrated study of regions of the world focusing on the relationships among people, places and environments, physical and human systems, and the uses of geography. This course prepares students for the rigorous critical thinking and writing skills needed in the Advanced Placement courses.

WORLD HISTORY **Credit: 1.0**

Grade: 9-10 **Prerequisite: None**

This course is a study of the development of civilizations and cultures from the earliest societies to the contemporary world with a focus on the historical perspective of major world events and movements.

HONORS WORLD HISTORY **Credit: 1.0**

Grade: 9-10 **Prerequisite: Teacher Recommendation**

This course is a study of the development of civilizations and cultures from the earliest societies to the contemporary world with a focus on the historical perspective of major world events and movements. This course prepares students for the rigorous critical thinking and writing skills needed in the Advanced Placement courses.

US HISTORY **Credit: 1.0**

Grade: 11 **Prerequisite: World Geography and World History**

This course is a study of the people, events, and issues that have shaped political, economic, and social institutions of the United States from the period of Reconstruction to the present.

AP US HISTORY **Credit: 1.0**
Grade: 11 **Prerequisite: World Geography and World History**

This course incorporates the essential elements of the high school course with a more accelerated college instructional format. The course will cover from the Age of Exploration of the Americas to the present, while covering 600 years of history from the birth to the current status of the United States. Taking college-level courses while still in high school requires a heightened sense of responsibility and maturity. **Note: All students are required to take the AP Exam for possible college credit.**

U.S. GOVERNMENT **Credit: 0.5**
Grade: 12 **Prerequisite: US History**
This course is a study of the United States Constitution, the three branches of the federal government, the national political system, and state and local government systems. This course will be paired with Economics.

U.S. GOVERNMENT DUAL CREDIT **Credit: 0.5**
Grade: 12 **Prerequisite: Must meet college eligibility requirements**
This course incorporates the essential elements of the high school course with a more accelerated college instruction format. The students must pay tuition to Grayson County College and purchase books. Please note that this course is taught by college professors not HISD staff. Taking college classes while still in high school requires a heightened sense of responsibility and maturity. Failing college government could prevent a student from graduating from high school.

ECONOMICS **Credit: 0.5**
Grade: 12 **Prerequisite: U.S. History**
This course is a study of the basic principles of the production, distribution, and consumption of goods and services. The students gain competencies in practical, real-world economic situations. This course will be paired with US Government.

ECONOMICS DUAL CREDIT **Credit: 0.5**
Grade: 12 **Prerequisite: Must meet college eligibility requirements**
This course is designed for students showing an advanced aptitude for the study of social studies and/or business. It undertakes an in-depth study of the capitalistic system and its purposes, functions, and results. The students must pay for tuition and books. Please note that this course is taught by college professors not HISD staff. Taking college classes while still in high school requires a heightened sense of responsibility and maturity. Failing college government WILL keep a student from graduating from high school.

PSYCHOLOGY **Credit: 0.5**
Grade: 11-12 **Prerequisite: None**
This course is a study of individual and group behavior focusing on the knowledge, methods, and theories which are used by psychologists.

SOCIOLOGY **Credit: 0.5**
Grade: 11-12 **Prerequisite: None**
This course is a systematic study of individuals, groups, and social institutions. The course focuses on the individual and his relationship to the society in which he lives.

SPECIAL TOPICS IN SOCIAL STUDIES I, II **Credit: 0.5**
Grade: 11-12 **Prerequisite: None**
This course is designed to allow students to apply previous learning as they review and discuss historically significant periods of time as it is portrayed in film today. Students will be expected to discuss, debate, and provide written analysis of various historical films.

PERSONAL FINANCIAL LITERACY **Credit: 0.5**
Grade: 10-12 **Prerequisite: None**
Personal Financial Literacy will develop citizens who have the knowledge and skills to make sound, informed financial decisions that will allow them to lead financially secure lifestyles and understand personal financial responsibility.

LANGUAGES OTHER THAN ENGLISH

SPANISH I **Credit: 1.0**
Grade: 9-11 **Prerequisite: None**
The emphasis of Spanish I is on introductory level Spanish to include basic pronunciation skills, vocabulary, grammar, and culture. Students will use a variety of materials and exercises to analyze and translate to develop a sense of linguistic structure in Spanish. Students will examine the culture of various Spanish speaking countries. This is the beginning level of Spanish and should provide the student with a rudimentary understanding of the mechanics of the language.

SPANISH II **Credit: 1.0**
Grade: 10-12 **Prerequisite: Spanish I**
The second year of Spanish will expand on what was learned in Spanish I. Students will expand their use of grammar and vocabulary and construct increasingly complex sentences in the target language. The course explores the culture, customs, and folklore of the Spanish-speaking world.

SPANISH III **Credit: 1.0**
Grade: 11-12 **Prerequisite: Spanish II**
This level of Spanish is for the students seeking meaningful proficiency in the target language. Students will be working with a variety of materials at a much more advanced language level. Students will be given opportunities to explore and examine authentic Spanish language materials and gain a significant level of comprehension of them. Students in Spanish III will increase oral and auditory proficiency, reading comprehension skills, and accurate written communication. The course provides opportunities to enhance students' understanding of Hispanic cultures through a wide range of study including film, literature, art, history, geography, and authentic materials. Students will learn structures necessary to interact socially, request and receive information in a variety of situations, and negotiate the actions of others. This course is conducted primarily in the target language. This is a full year course. Students will not be allowed to drop after selection is finalized or at the end of first semester.

SPANISH IV **Credit: 1.0**
Grade: 12 **Prerequisite: Spanish III**
Spanish IV is a continuation of Spanish III and will further increase oral and auditory proficiency, reading comprehension skills, and accurate written communication. The course provides opportunities to enhance students' understanding of Hispanic cultures through a wide range of study including film, literature, art, history, geography, and authentic materials. Students will learn structures necessary to interact socially, request and receive information in a variety of situations, and negotiate the actions of others. An increase in the amount of preparation and study time should be expected for successful completion of the course. This course is conducted primarily in the target language. This is a full year course. Students will not be allowed to drop after selection is finalized or at the end of first semester.

FINE ARTS

BAND I, II, III, IV **Credit: 1.0**
Grade: 9-12
The curriculum focuses mainly on marching band in the fall and concert band in the spring. The rehearsal and performance schedules include Summer Band Camp, Monday night practices, football games, pep rallies, contests, sectionals before and after school, and concerts. Students enrolling in any band course are required to participate in marching band. Membership does not require an audition if a student has been part of a band program the previous year. If the student has not been part of a band program the previous year, a meeting and approval of the band director is required. Courses must be taken in sequence. Two semesters of fall marching band may satisfy the P.E. graduation requirement.

APPLIED MUSIC I, II, III, IV **Credit: 1.0**
Grade: 9-12
Applied Music provides band students the opportunity to further refine their musical skills. Students will work on individual technique and study solos and ensembles from differing musical periods and genres. In addition, students will learn a second instrument, as necessary, to complete a jazz band ensemble instrumentation.

ART I, II, III, IV **Credit: 1.0**
Grade: 9-12
Art courses are designed to incorporate and involve the student in more specialized visual art processes. These processes will emphasize student learning within the following visual arts concepts; individual artistic perception, creative visual expression, artistic production, media selection and techniques, aesthetics, appreciation of historical and multi-cultural contributions to visual arts, artistic criticism and the principles and elements of design. Portfolio developments, correct oral and written communication, as they relate to visual arts, will be integral to all aspects of this course. Courses must be taken in sequence.

THEATER I, II, III, IV **Credit: 1.0**
Grade: 9-12 **Prerequisite: Application and Audition Required for Theater II, III, & IV**
These courses provide opportunities to become familiar with plays and playwrights, principles and practices of acting, directing, and playwriting, and some aspects of technical theater such as scenic, costume, lighting, sound, and make-up design. The elements to be studied are focused upon within the context of the world's great periods of theater history. Students may be required to attend rehearsals or performances outside of regular school hours. Courses must be taken in sequence.

PHYSICAL EDUCATION

PHYSICAL EDUCATION (PE) **Credit: 1.0**
Grade: 9-12
One unit of P.E. is required of all students for graduation. However, no more than two years of P.E. may be counted toward total credits used for graduation.

ATHLETICS **Credit: 1.0**
Grade: 9-12
UIL Competitive Sports Information - HISD offers the following competitive sports:

Boys	**Girls**
. Baseball	. Basketball
. Basketball	. Cross Country
. Cross-Country	. Golf
. Football	. Powerlifting
. Golf	. Softball
. Powerlifting	. Tennis
. Tennis	. Track
. Track	. Volleyball

**Other opportunities may be available for students who are participating in sports outside of this list. See the Principal or Athletic Director for further information on how we can support your athletic endeavors.*

HEALTH & SPEECH

PROFESSIONAL COMMUNICATION (SPEECH) **Credit: 0.5**
Grade: 9 - 12 **Prerequisite: None**
This is an introductory course in the communication process with a focus on career preparation. Students will concentrate on the following areas: verbal and non-verbal language, group dynamics, decision making, active listening, oral presentations, interpersonal and intrapersonal communication and awareness of the communication process and how it affects our daily lives.

HEALTH **Credit: 0.5**
Grade: 9 - 12 **Prerequisite: None**
In health education, students acquire the health information and skills necessary to become healthy adults and learn about behaviors in which they should or should not participate. Students will develop skills that will make them health-literate adults. Students will gain an understanding of the knowledge and behaviors they use to safeguard their health, particularly pertaining to health risks.

OTHER ELECTIVES

BULLDOG SUCCESS PROGRAM (Credit Recovery) **Credit: varies Grade: 11-12** **Prerequisite: Counselor approval required**
The Bulldog Success Program is an online TEKS based online program for students who need to recover credits for the purpose of meeting the requirements for graduation. Students should complete the required course(s) during the scheduled class period and semester.

COLLEGE PREP STUDY HALL **Credit: No Credit**
Grade: 12
Students will be assigned college preparatory activities such as ACT/SAT practice, career interest surveys, college research, scholarship searches, college admissions/scholarship essays, etc.

OFFICE AIDE **Credit: No Credit**
Grade: 12
Office Aide positions may be available for seniors who would like to assist in the office.

LIFE SKILLS AIDE **Credit: No Credit**
Grade: 11-12
Life Skills Aide positions may be available for juniors or seniors who would like to assist the STC students.

OFF CAMPUS **Credit: No Credit**
Grade: 12
Off Campus is available for seniors who have fulfilled all of their graduation requirements, including credits and state assessments. The purpose of this option is to allow Seniors the opportunity to pursue work or outside studies. Scheduling conflicts may not allow for the requested off periods. Any senior with an off campus period who is in jeopardy of not graduating will have their off campus period revoked, and the student will be assigned to a structured tutorial / study hall period or a required course during that time. Students will be allowed to take no more than 1-2 off campus periods.

Career and Technical Education Courses

AGRICULTURE, FOOD, AND NATURAL RESOURCES

PRINCIPLES OF AG, FOOD, AND NATURAL RESOURCES **Credit: 1.0**
Grade: 9 - 12 **Prerequisite: None**
The Agriculture, Food, and Natural Resources Career Cluster focuses on the production, processing, marketing, distribution, financing, and development of agricultural commodities and resources, including food, fiber, wood products, natural resources, horticulture, and other plant and animal products/resources. Principles of AFNR will allow students to develop knowledge and skills regarding career and educational opportunities, personal development, globalization, industry standards, details, practices, and expectations. To prepare for careers in agriculture, food, and natural resources, students must attain academic skills and knowledge in agriculture. To prepare for success, students need opportunities to learn, reinforce, experience, apply, and transfer their knowledge and skills in a variety of settings.

LIVESTOCK PRODUCTION **Credit: 1.0**
Grade 10 - 12 **Prerequisite: Principles of Ag, Food, and Natural Resources**
To be prepared for careers in the field of animal science, students need to attain academic skills and knowledge, acquire knowledge and skills related to animal systems and the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need opportunities to learn, reinforce, apply, and transfer their knowledge and skills in a variety of settings. Animal species to be addressed in this course may include, but are not limited to, beef cattle, dairy cattle, swine, sheep, goats, and poultry.

VETERINARY MEDICAL APPLICATIONS **Credit: 1.0**

Grade: 11 - 12 **Prerequisite: Livestock Production**

To be prepared for careers in the field of animal science, students need to attain academic skills and knowledge, acquire technical knowledge and skills related to animal systems and the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need opportunities to learn, reinforce, apply, and transfer knowledge and skills and technologies in a variety of settings. Topics covered in this course include, but are not limited to, veterinary practices as they relate to both large and small animal species.

ADVANCED ANIMAL SCIENCE **Credit: 1.0**

Grade: 11-12 **Prerequisites: Biology & Chemistry OR IPC & Chemistry; Algebra I and Geometry; Livestock Production. This course satisfies a high school science graduation requirement.**

Advanced Animal Science demonstrates principles relating to the interrelated human, scientific, and technological dimensions of animal agriculture and the resources necessary for producing domesticated animals; applies the principles of genetics and breeding to livestock improvement; examines animal anatomy and physiology in livestock species; recognizes policies and issues in animal science; discusses slaughter livestock operations; and explores methods of marketing livestock.

AGRICULTURAL MECHANICS & METAL TECHNOLOGIES **Credit: 1.0**

Grade 10 - 12 **Prerequisite: Principles of Ag, Food, and Natural Resources**

To be prepared for careers in agricultural power, structural, and technical systems, students need to attain academic skills and knowledge; acquire technical knowledge and skills related to power, structural, and technical agricultural systems and the industry; and develop knowledge and skills regarding career opportunities, entry requirements, industry certifications, and industry expectations. To prepare for success, students need opportunities to learn, reinforce, apply, and transfer knowledge and skills and technologies in a variety of settings. This course is designed to develop an understanding of agricultural mechanics as it relates to safety and skills in tool operation, electrical wiring, plumbing, carpentry, fencing, concrete, and metalworking techniques.

AGRICULTURAL STRUCTURES DESIGN & FABRICATION **Credit: 1.0**

Grade: 11 - 12 **Prerequisite: Agricultural Mechanics & Metal Technologies**

To be prepared for careers in mechanized agriculture and technical systems, students attain knowledge and skills related to agricultural facilities design and fabrication. Students explore career opportunities, entry requirements, and industry expectations. To prepare for success, students reinforce, apply, and transfer their academic knowledge and technical skills in a variety of settings.

AGRICULTURAL EQUIPMENT DESIGN & FABRICATION **Credit: 1.0**

Grade: 11-12 **Prerequisite: Agricultural Mechanics & Metal Technologies**

To be prepared for careers in mechanized agriculture and technical systems, students attain knowledge and skills related to agricultural equipment design and fabrication. Students explore career opportunities, entry requirements, and industry expectations. To prepare for success, students reinforce, apply, and transfer their academic knowledge and technical skills in a variety of settings.

FOOD PROCESSING (Odd Years) **Credit: 1.0**

Grade: 10 - 12 **Prerequisite: Principles of Ag, Food and Natural Resources**

To be prepared for careers in food products and processing systems, students need to attain academic skills and knowledge, acquire technical knowledge and skills related to natural resources and the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need opportunities to learn, reinforce, apply, and transfer their knowledge and skills in a variety of settings. This course focuses on the food processing industry with special emphasis on the handling, processing, and marketing of food products.

FOOD TECHNOLOGY AND SAFETY (Even Years) **Credit: 1.0**
Grade: 10 - 12 **Prerequisite: Principles of Ag, Food and Natural Resources**
To be prepared for careers in the field of energy and natural resource systems, students need to attain academic skills and knowledge, acquire technical knowledge and skills related to energy and natural resources and the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need to have opportunities to learn, reinforce, apply, and transfer their knowledge and skills and technologies in a variety of settings. This course is designed to explore the interdependency of the public and natural resource systems related to energy production. In addition, renewable, sustainable, and environmentally friendly practices will be explored.

PRACTICUM IN AG, FOOD, & NATURAL RESOURCES **Credit: 2.0**
Grade: 11-12 **Prerequisite: Principles of Ag, Food, and Natural Resources**

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. A student may repeat this course once for credit provided that the student is experiencing different aspects of the industry and demonstrating proficiency in additional and more advanced knowledge and skills. Practicum in AFNR 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. To prepare for careers in agriculture, food and natural resources, students must attain academic skills and knowledge, acquire technical knowledge and skills related to the workplace, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations.

WELDING I: DUAL CREDIT (WLDG 1421 / WLDG 1428) **Credit 2.0**
Grade: 11-12 **Prerequisite:**
Introduction to Welding Fundamentals- An introduction to the fundamentals of equipment used in oxyacetylene and arc welding including welding and cutting safety, basic oxyacetylene welding and cutting, basic arc welding processes and basic metallurgy. An introduction to the shielded metal arc welding process. Emphasis is placed on power sources, electrode selection, oxy-fuel cutting, and various joint designs. Instruction is provided in SMAW fillet welds in various positions. This course takes place at a Grayson campus and requires a 2-hour schedule block.

WELDING II: DUAL CREDIT (WLDG 1430 / WLDG 1457) **Credit 2.0**
Grade: 12 **Prerequisite: Welding I DC**
A study of the principles of gas metal arc welding, setup and use of GMAW equipment, and safe use of tools/equipment. Instruction in various joint designs. A study of the production of various fillets and groove welds. Preparation of specimens for testing in all test positions. This course takes place at a Grayson campus and requires a 2-hour schedule block.

ARTS, A/V TECHNOLOGY AND COMMUNICATIONS

PRINCIPLES OF ARTS, A/V TECHNOLOGY & COMMUNICATIONS **Credit: 1.0**
Grade: 9 - 11 **Prerequisites: None**

This course will study the definition, theories, and applications of audio/video production. During this course, students will learn how to use many industry software standards used to create video production projects. Within this context, students will be expected to develop an understanding of the various and multifaceted career opportunities in this cluster and the knowledge, skills, and educational requirements for those opportunities. This course requires students to complete projects to demonstrate their learning and skills. The goal of this class is for students to have a general understanding and application of audio/video production and various software programs used in the television/movie industries.

DIGITAL DESIGN & MEDIA PRODUCTIONS **Credit: 1.0**
Grade: 10 - 12 **Prerequisites: Principles of Arts, A/V Technology & Comm.**

This course will study the definition, theories, and applications of digital design and media. During this course, students will learn how to use many industry software standards to create various digital graphic projects and how to apply design theories to enhance projects. The graphic design course is a project based learning environment class. Projects are intended to deepen their understanding and put learned skills to practical use. The goal of this class is for students to have a general understanding and application of graphic design principles, techniques, and various software programs used in the digital design and media industries. Additionally, students will be exposed to real-world expectations relating to graphic design workplace environments, including group projects, time management, and client requests.

GRAPHIC DESIGN & ILLUSTRATION I **Credit: 1.0**
Grade: 10 - 12 **Prerequisites: Principles of Arts, A/V Technology & Comm.**
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 & ILLUSTRATION II **Credit: 1.0**
Grade: 10 - 12 **Prerequisites: Graphic Design & Illustration I**
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 career cluster, students will be expected to develop an advanced understanding of the industry with a focus on mastery of content knowledge and skills.

BUSINESS

BUSINESS INFORMATION MANAGEMENT I **Credit: 1.0**
Grade: 9-12 **Prerequisite: None**
BIM I offers students a chance to gain vital computer application skills that will allow them to keep pace in our ever evolving world of technology. The focus of this course is on the ethical business application of software including, word processing, spreadsheet, database, presentation software, and desktop publishing. Students will also be guided in responsible internet use, develop awareness for computer operations, and offers insight into new trends and advances in the world of technology. This course offers students an opportunity to develop marketable skills that will allow them to improve the quality of their school work and compete in a competitive job market. Students will have the opportunity to earn Microsoft Office Specialist (MOS) Certification.

BUSINESS INFORMATION MANAGEMENT II **Credit:1.0**
Grade: 10-12 **Prerequisite: BIM I**
BIM II is designed for the advanced learner in business computer applications to challenge and sharpen the learner's computer skills. Students will apply technical skills addressing business applications of emerging technologies through using MS Office software. Instruction will include many advanced problem-solving skills such as merging word documents, creating word forms, creating Excel pivot tables and Access macros, exporting & importing data into Excel and Access, and customizing presentation options. Students will have the opportunity to earn Microsoft Office Specialist (MOS) Certification.

EDUCATION & TRAINING

PRINCIPLES OF EDUCATION & TRAINING **Credit: 1.0**
Grade: 9 - 10 **Prerequisite: None**
Principles of Education and Training is designed to introduce learners to the various careers available within the Education and Training Career Cluster. Students use self-knowledge as well as educational and career information to analyze various careers within the Education and Training Career Cluster. Students will develop a graduation plan that leads to a specific career choice in the student's interest area.

HUMAN GROWTH & DEVELOPMENT **Credit:1.0**
Grade: 10 - 12 **Prerequisite: Principles of Education & Training**
Human Growth and Development is an examination of human development across the lifespan with emphasis on research, theoretical perspectives, and common physical, cognitive, emotional, and social developmental milestones.

INSTRUCTIONAL PRACTICES **Credit: 2.0**
Grade: 11 - 12 **Prerequisite: Principles of Education & Training and Human Growth & 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.

HEALTH SCIENCE NURSING **Credit 1.0**
Grade: 9
The Principles of the 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 **Credit 1.0**
Grade: 10 **Prerequisite: Health Science Nursing**
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

Health Science Theory/ Health Science Clinical **Credit 1.0**
Grade 10-11 **Prerequisite: Health Science/Nursing**
The Health Science Clinical 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. Districts are encouraged to offer this course in a consecutive block with Health Science Theory to allow students sufficient time to master the content of both courses

Practicum of Health Science **Credit 1.0**
Grade: 11-12 **Prerequisite: Medical Terminology & Health Science/ Theory&Clinical**
The Practicum is aimed at giving the students the opportunity to participate in on-going intervention programs and activities at the Local Government, the community and health facility levels. The students are to produce reports on health systems research based on their experiences at different levels of activities.

SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS

PRINCIPLES OF APPLIED ENGINEERING **Credit: 1.0**
Grade: 9 - 10 **Prerequisite: None**
During the first semester, this course provides an overview of the various fields of science, technology, engineering, and mathematics and their interrelationships. Students will develop engineering communication skills by recording the design process and building in an engineering notebook while working on various projects in different groups throughout the year. During the second semester, students will learn to design, build, and program simple robotic parts using VEX robotic equipment. Students interested in robotics and competitions will generally take the following courses: Manufacturing Engineering Technology I, Engineering Design & Presentation I, and Engineering Design & Problem Solving.

MANUFACTURING ENGINEERING TECHNOLOGY I (Robotics I) **Credit: 1.0**
Grade: 10 - 12 **Recommended prerequisite: Principles of Applied Engineering**
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 setting in a manufacturing setting.

ENGINEERING DESIGN & PRESENTATION I (Robotics II) **Credit: 1.0**
Grade: 11 - 12 **Prerequisites: Algebra I and Manufacturing Eng Tech recommended**
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, sold 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 & PROBLEM SOLVING (Robotics III) **Credit: 1.0**

Grade: 11 - 12 **Prerequisites: Algebra I and Geometry**. **This course satisfies a high school science graduation requirement.**

Engineering Design and Problem Solving course is the creative process of solving problems by identifying needs and then devising solutions. The solution may be a product, technique, or process depending on the problem. Science aims to understand the natural world, while engineering seeks to shape this world to meet human needs and wants. Engineering design takes into consideration limiting factors of “design under constraint.” Various engineering disciplines address a broad spectrum of design problems using specific concepts from the sciences and mathematics to derive a solution. The design process and problem solving are inherent to all engineering disciplines. This research-based course meets one of the Distinguished Achievement Program advanced measures. **This course meets the requirements for a 4th science credit.**